Using Psychosocial Development Theory and Personality Typology in Identifying At-Risk Characteristics of College Honors Students

by

Dennis Lark Lancaster

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A Dissertation submitted to the Education Faculty of Lindenwood University in partial fulfillment of the requirements for the degree of

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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work at Lindenwood University and that I have not submitted it for any other college or university course or degree.

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Writer and philosopher G.K. Chesterton once said, "When it comes to life the critical thing is whether you take things for granted or take them with gratitude" (Chesterton, n.d.). Over the course of developing this study and then putting its findings into words, there have been people who have come to my rescue, encouraged me, and taught me so much along the way. The "critical thing" is to now say "thank you," but know, I have never taken you for granted because I value you and your gifts of energy, knowledge, time and encouragement too much to do that.

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Abstract

While substantiating the effectiveness of honors programs to increase learning among the academically gifted, assessment and any associated outcomes should also be effectively used to understand the psychosocial development challenges of these students and, at the same time, increase their learning in and out of the honors environment. Robinson's (1997) research showed that, saddled with the typical college student's at-risk characteristics, e.g., first-generation status, low-income, financial limitations, etc., gifted students also face unique adjustment challenges in terms of their social development. These challenges include habits and attitudes associated with and/or resulting from not having to work at their studies in high school, such as 'grade shock,' mediocrity, and an expectation of naturally being at the top of their class; not knowing their strengths and weaknesses due to a lack of academic challenge; not experiencing having to ask for help; and having multiples gifts and talents that are or can be channeled in multiple directions. This mixed methods study examined how educators may be able to use psychosocial student development theory and research in the use of personality type assessment instruments, such as the Myers-Briggs Type Indicator to support these students whose unique attitudes and behaviors put them at risk of losing their educational and career opportunities.

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Chapter One: Introduction

Background of the Study

It seems every college or university has one these days; the label changes from institution to institution, but the names include honors colleges, honors programs, scholar programs, and special learning communities (Willingham, 2012). Each has the mission of serving a select group of students deemed upon entrance to college to be of high academic ability and career potentiality (Scager et al., 2011). Not all gifted students are the same and certainly not all of them succeed in college because they have high college entrance exam scores or even an above average high school grade point average (Singell & Waddell, 2010; Waugh, Micceri, & Takalkar, 1994). The question has been asked, "With so much potential, why do they fail?"

Many intellectually gifted students graduate from high school and launch into a post-secondary career; however, for some, a variety of psychological and social adjustment obstacles stand in the way (Grobman, 2006). While they may fall in love with the ideas they encounter in an honors program, as well as the interaction with peers and instructors, they are bored by the rest of their schedule, and their interest in college in general wanes, including their grades (Satterfield, 2006; Siegle, Rubenstein, Pollard, & Romey, 2010). This type of failure among students is not an isolated occurrence, despite the efforts of instructors, administrators, and support personnel who work with honors students (Singell & Waddell, 2010; Waugh et al., 1994). Clearly, great expectations and even admittance into an honors program are not predictors of retention, academic success, or graduation, as Scager et al. (2011) noted:

> Honors students are assumed to have the potential to excel in their future professional lives. It is, however, unclear whether and to what extent these honors students do indeed have this potential in comparison to non-honors students. In contrast with the huge body of research on giftedness in primary and secondary education, empirical research on talent in higher education is surprisingly scarce (Achterberg, 2005; Clark, 2000; Long & Lange, 2002; Rinn & Plucker, 2004). This is remarkable given the growth of programs specifically designed for groups of students who are assumed to be academically talented. (p. 20)

While they clearly have great potential in their professional careers, students participating in honors programs are not as clearly identified as being able to succeed in their college careers as compared with non-honors students; however, given the lack of research in higher education concerning the benefit of honors programs to gifted or academically-talented students, the increase in the number of honors programs remains phenomenal (Scager, 2011).

With the honors movement and its academic community as the context, this study considered the prevailing psychosocial student development theories of Chickering (1969) and Astin (1999). In addition, the study considered current concepts concerning at-risk attitudes and behaviors of honors students (Grobman, 2006; Satterfield, 2006; Scager et al., 2011; Siegle et al., 2010; Singell & Waddell, 2010; Waugh et al., 1994). Research encouraging the use of personality identity theory in developing a supportive learning environment for college students supported the use of an existing psychometric

instrument in evaluating at-risk characteristics (Horton, Foucar-Szocki, and Clarke, 2009; McCaulley, 2000; Schaubhut, Herk, & Thompson, 2009).

Historical significance. Across the United States, the number of collegiate honors programs has increased rapidly since 1994, with most four-year colleges and a growing number of two-year institutions offering some type of program for their more advanced students (Sederberg, 2012). These institutions offer a myriad of reasons for offering these programs to the academically promising, not the least important is to further the student's educational and personal experience in ways the standard curriculum cannot (Willingham, 2012). As the number of honors programs have increased over the past two decades, so have the questions and issues associated with their purposes, methodologies, and, most notably, with their students (Rinn, 2005). Lanier (2008) reported, while some evidence is apparent that students in honors programs are learning and receive a variety of benefits for their participation, there has been substantial resistance from the honors community in heeding the call for substantial systematic assessment as the "rest of the campus." Lanier (2008) further stated:

> Instead of seeking to avoid the problem by laying the blame on legislative cretins or "the business mentality," let us look instead at the published and influential positions of academic entities. In a widely disseminated piece titled "Our Students' Best Work: A Framework for Accountability Worthy of Our Mission," the Association of American Colleges and Universities states: . . . despite the development over the past two decades of a veritable "assessment movement," too many institutions and programs still

> are unable to answer legitimate questions about what their students are learning in college. The lack of evidence on student learning outcomes has proved damaging." That statement can be pointed directly at honors programs; in fact, it is pointed at us on a fairly regular basis. (p. 83)

Leaders in the honors community are now rallying for even greater accountability for some very practical reasons (Driscoll, 2011; Reihman, Varhus, & Whipple, 1990). These reasons include the maintenance of accreditation, retention of already recruited students, improvement in instructional strategies and curricular design, appropriate selection of course offerings in the curriculum, and, as further justification for this current study, effective support and advising services for the honors student (Lanier, 2008). Part of this push for assessment is determining which students are in need of the most support in meeting goals and matching their abilities and potentialities with their academic and career opportunities (Driscoll, 2011). Scager et al. (2011) noted the need for more research, saying even though honors students are assumed to have the potential to excel in the future, it is "unclear whether and to what extent these honors students do indeed have this potential in comparison to non-honors students" (p. 20).

Cosgrove (2004) noted if there is an added benefit for students in these programs, then the key is first getting them into the program and then subsequently keeping them in the program. While previous research by Astin (1999) and Tinto (1982) indicated honors students who completed an entire honors program had better retention and graduation rates than non-honors students, Cosgrove (2004) argued Astin's and Tinto's research did not include students who began an honors program but failed to complete the program as

part of their college experience. Nor, Cosgrove (2004) asserted, were those who simply did not return to school included. When looking at all students who began their college experience in an honors program, Cosgrove's (2004) data showed three-quarters of these students failed to complete the program and, of that number, 18% failed to be retained in college altogether. Cosgrove (2004) further noted, of those retained, the graduation rate, by campus studied, ranged from 63% to 90% within the five-year graduation period. Of those students who completed the entire honors program, however, 100% graduated (Cosgrove, 2004). The analysis of student success also showed that students with only a partial experience in honors failed to show any enhanced ability to succeed over students with no experience at all (Cosgrove, 2004).

Given the research of Cosgrove (2004) and of others, such as Barefoot (2011), Lanier (2008), Noldon and Sedlacek (1996), Rinn and Plucker (2004), Robinson (1997), Scager et al. (2011), and Slavin, Coladarci and Pratt (2008), more research is needed to consider how best to address and support the student developmental needs of honors students to continue in the supportive atmosphere of their honors program. As Scager et al. (2011) indicated, this effort should include an early evaluation of those needs and the obstacles honors students have been demonstrated to uniquely face. Scager et al. (2011) further stated:

> Furthermore, as we found different talent profiles across disciplines, it could be valuable to relate the relative importance of these characteristics to academic domains . . . . A developmental perspective is needed to provide insights into how to teach honors students effectively. A better understanding of the interaction

> between students' motivational, creative and intellectual aptitudes on the one hand, and the learning environment and teaching methods on the other hand, could lead to better learning in honors groups. (p. 35)

This study sought to provide that early evaluation and improve the understanding of this interaction between honors student aptitudes, attitudes, and their learning environment through the use of a standardized, easily accessible, and widely accepted psychometric instrument.

Conceptual Framework

Two theories of student development may offer a path that will assist honors program administrators to meet the social and developmental needs of their gifted students and, at the same time, provide a framework to articulate a set of academic outcomes by which the curricular and student development activities that are a part of honors programs can be assessed and maximized for effectiveness. Chickering (1969) and Astin (1999) have encouraged research using student development theory to understand the unique campus-wide environmental needs of the gifted student and to assess the learning that comes through that environment. The findings of Chickering (1969) and Astin (1999) provided the background for this research, which hypothesized the at-risk attitudes and behaviors of honor students arising from their unique student development needs can be correlated with their academic success and identified by personality typology.

The work of Chickering (1969), who after years of observation and research on college campuses during the 1960s, proposed, as he called them, seven vectors of student

development. Over the years, these vectors have since influenced student services methodologies and helped college leaders create student-living environments to facilitate student-learning (Hu & Kuh, 2002; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2011). Building on Chickering's theory, Astin (1999) suggested a subsequent developmental theory for higher education focused on student involvement, considering data not unlike that gathered by today's National Survey of Student Engagement (NSSE, 2013) and Community College Survey of Student Engagement (CCSSE, 2013).

In brief, Chickering (1969) proposed that a traditional-age college student–honors and non-honors eligible–moves through a complex system of seven vectors that, if shaped positively, promote the student's personal growth as well as his or her potential to benefit from the surrounding academic environment. Chickering (1969) explained student success in reaching these vectors helped to determine the quality of their experience in the college environment, and not only impacted personal growth but also institutional outcomes such as retention and graduation rates. In addition, Chickering (1969) argued that students' experiences–in and of themselves–"are not sufficient for them to mature through the developmental vectors if they are not accompanied by external support systems" (as cited in Stewart, 2008, p. 32).

Astin's (1999) theory of student involvement "refers to the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518). Astin (1999) defined "a highly involved student as one who, for example, devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students" (p. 518). Astin's (1999) student involvement theory provided an advantage over

traditional pedagogical approaches in that, "it directs attention away from subject matter and technique and toward the motivation and behavior of the student" (p. 529).

Astin's (1999) theory delineated five basic aspects of an effective academic-support program, all focused on structuring and encouraging the student's involvement in his or her learning and social environment. Astin (1999) said involvement should promote and inculcate an "investment of physical and psychological energy in various objects" with the understanding that the student will "manifest different degrees of involvement" in each of those objects at different times (p. 519). In addition, an effective program will also seek to maximize the quantity and quality of the student's involvement.

Astin (1999) also observed academic administrators and student service directors must recognize the "amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program" (p. 519). The overall effectiveness of a program is correlated to how well the program, policy, or activity simply increases student involvement (Astin, 1999). As Kuh, Douglas, Lund, and Ramin-Gyurnek (1994) have observed, this includes involvement outside as well as inside the classroom.

Using the research of Chickering (1969) and Astin (1999), university administrators and instructors have since begun to consider how psychosocial student development theory could assist them in supporting various students at risk of failure, including, to a limited extent, college honors students (Chickering & Gamson, 1999). With a focus exclusively on the honors student, this research utilized these student development theories to examine how honors students must move through the various stages of their psychosocial development. Unlike other students, the honors student

simultaneously wrestles with the behaviors and attitudes that perhaps arise from particular personality types associated with the intellect of honors students (Grobman, 2006; Satterfield, 2006; Scager et al., 2011; Siegle et al., 2010; Singell & Waddell, 2010; Waugh et al., 1994). These types, which can be examined using Jungian typologies and assessed via the Myers-Briggs Type Indicator (MBTI), may assist university personnel in academics as well as student affairs in better meeting the needs of these students (McCaulley, 2000). The 16 types, including their distribution across the American adult populace, are shown in Figure 1.

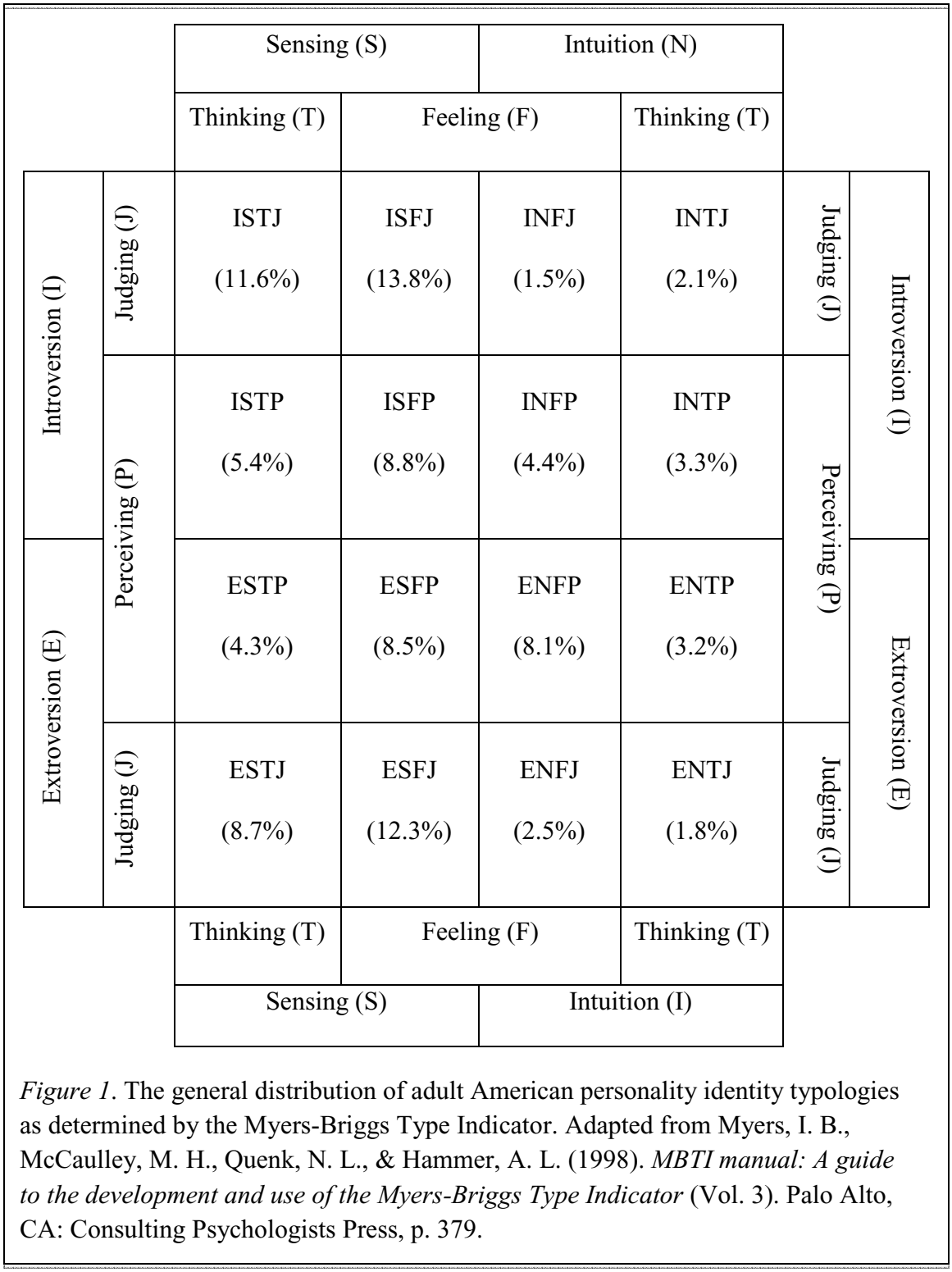


Figure 1. The general distribution of adult American personality identity typologies as determined by the Myers-Briggs Type Indicator. Adapted from Myers, I. B., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998). *MBTI manual: A guide to the development and use of the Myers-Briggs Type Indicator* (Vol. 3). Palo Alto, CA: Consulting Psychologists Press, p. 379.

Based on research by noted psychologist Jung, the MBTI is the product of Isabel Briggs Myers and her mother, Katherine Cook Briggs (Myers & Briggs Foundation, 2003). First published in 1962 and initially used by British educators to guide students to subject area and vocational interests at the university level (Behaz & Djoudi, 2012), the MBTI seeks to assess an individual's behavior by and attribute it to the "basic differences in the ways individuals prefer to use their perception and judgment" (Myers & Briggs Foundation, 2003. para. 1). In education, the MBTI is frequently used to understand differences in individual learning and teaching styles as well as in achievement, aptitude, and motivation (Watkins & Campbell, 1999). Isabel Myers, who was quoted in Watkins and Campbell (1999), explained:

> The essence of the theory is that much seemingly random variation in behavior is actually quite orderly and consistent, being due to basic differences in the way individuals prefer to use their perception and judgment. Perception involves all the ways of becoming aware of things, people, happenings, or ideas. Judgment involves all the ways of coming to conclusions about what has been perceived. If people differ systematically in what they perceive and in how they reach conclusions, then it is only reasonable for them to differ correspondingly in their reactions, interests, values, motivations, skills, and interests. (p. 102)

This study postulates the MBTI may provide diagnostic information about first-time college honors students that high school grade point average (GPA) and standardized college admission test scores alone cannot. If it can be demonstrated that underlying perceptions and judgments are unique to the academically gifted during the

unique psychosocial development of the traditional-age college student, then perhaps a psychometric instrument like the MBTI will serve as a new tool in the college instructor's and administrator's assessment collection. Such additional information could help address certain at-risk behaviors that threaten honors students in achieving their anticipated success in college.

Statement of the Problem

In a call seemingly aimed at the honors community leadership, student development researchers and theorists Robinson (1997) and Haas (1992) separately urged honors programs to look at their students' specific developmental needs and practice educational nurturing. If honors programs fail to do so and their honors-level students are left without the proper support for their developmental needs as college students, those students will not fully benefit from the academic focus provided to them (Radomski, 2006). Other researchers point to these same problems. Schroer and Dorn (1986) argued gifted students often begin college with confusion and uncertainty regarding their future career plans. Pritchard and Wilson (2003) reported Day's (1989) finding that honors students "are no more likely to stay in school than non-gifted students, because they often lack the social support they need; as a result they may have low self-esteem and consequently drop out" (p. 19). As Rinn (2005) pointed out, they also may experience "multi-potentiality, or the ability to develop skills at a high level in multiple different areas" as well as "early emergence, which is an extreme focus in one area that usually begins at an early age" (p. 160).

In a study of honors students and their potential for career success, a research group headed by Scager et al. (2011) showed honors and non-honors students differed

significantly in each group's selected characteristics for career potential. Of note here, however, is the Scager group's call for additional research in meeting the support needs of honors students. Urging the academic community to work toward a better "fit between the learning environment and the abilities, interests and motivation of the students," Scager et al. (2011, p. 34) suggested honors students must be "challenged appropriately." This task is made more difficult because honors students are not a homogeneous population; simply, they are different in different ways, and different means must be employed to meet their different needs (Scager et al., 2011).

Purpose of the Study

The purpose of this study was to examine how academic leaders coordinating a comprehensive collegiate honors program can use psychosocial student development theory and research in the use of personality types to support college honors students whose attitudes and behaviors unique to them as honors-level students put them at risk of losing the collegiate and career opportunities ahead of them.

Research questions. The following research questions guided the study:

1. What difference, if any, exists between MBTI personality typology and retention rates in college?

H_0: There is no significant difference between the college honors student's identified MBTI personality type and his or her retention in college at the 0.05 level.

H_1: There is a significant difference between the college honors student's identified MBTI personality type and his or her retention in college at the 0.05 level.

2. What difference, if any, exists between MBTI personality typology and success in college, as determined by a 3.5 GPA or higher attainment level at the completion of a student's degree program, upon transfer, or upon withdrawal?

H_0: There is no significant difference between the college honors student's identified MBTI personality type and his or her success in college at the 0.05 level.

H_1: There is a significant difference between the college honors student's identified MBTI personality type and his or her success in college at the 0.05 level.

3. From a sample of students who were retained/not retained in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors and/or attitudes associated with honors students did the students report experiencing?

4. From a sample of students who succeeded/did not succeed in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors/attitudes associated with honors students did the students report experiencing?

Definitions of Key Terms

For the purposes of this study, the following terms are defined:

College success. For the purpose of this study focused on honors students at a small (less than 2,100 students) public, two-year college in the Midwest, college success is defined as when a full-time honors student (see definition) graduates with or transfers with a 3.5 grade point average on a 4.0 scale. This is the GPA required for completion of

the Specialization in Honors at the institution studied. Non-success would be defined, then, as not being retained (see definition) or not graduating with or transferring with a 3.5 GPA (Course Catalog, p. 66). (Note: Due to the sensitivity of this study and in order to maintain the anonymity of the participants, the university will not be named from which this course catalog was published).

Graduating from the honors program. Students graduate with the Specialization in Honors distinction attached to their associate degree if they meet the following requirements:

- Complete all requirements of their associate degree program; and
- Earn a 3.5 cumulative GPA or higher in all course work; and
- Earn an 'A' or 'B' grade in the two honors core courses and the degree-ending honors capstone course for sophomores; and
- Accumulate at least nine credit hours in courses with an honors component and satisfactorily complete that course and its component with a grade of 'A' or 'B'; and
- Satisfy a cross-cultural experience requirement by:
    - Serving as an intern at the institution's international campus for one semester; or
    - Participating in a short-term global experience as part of a short-term study abroad program or another international travel experience offered by the college faculty or through another collegiate travel program approved by the honors program director; or

- Completing a service learning experience of no less than 24 contact hours, serving as a volunteer to an approved non-profit service agency approved by the honors program director. (Course Catalog, p. 66)

Graduation rate. According to the U.S. Department of Education, National Center for Educational Statistics (NCES) (2012), "Data are collected on the number of students entering the institution as full-time, first-time, degree/certificate-seeking undergraduate students in a particular year (cohort), by race/ethnicity and gender...). Also, data are collected on "the number completing their program within 150% of normal time to completion; the number that transfer to other institutions if transfer is part of the institution's mission" (section: glossary)

Honors program. Defined by the National Collegiate Honors Council (NCHC, 2012), as any college-level program which:

> Has as its central goal … academic enrichment; the ways to this goal are defined by the specific institutional context, the faculty teaching in the program, and the needs of the particular students. In general, honors programs are based on the belief that superior students profit from close contact with faculty, small courses, seminars or one-on-one instruction, course work shared with other gifted students, individual research projects, internships, foreign study, and campus or community service. (2012)

Honors student: Any full-time college student enrolled in the first or second core honors courses at the institution. To continue in the program, students must earn an 'A'

or 'B' grade in the two honors core courses and maintain at least a 3.5 grade point average in all coursework (Course Catalog, p. 65).

Retention. Based upon the definition of researcher Tinto (1993), student retention evaluates whether or not students attained their personal and/or academic goals upon exiting the college. A leaver or dropout is a student who enters the institution intending to graduate, and, due to some interference that blunts that intention, leaves school and does not return to school for an extended period of time.

Traditional college student. According to the NCES, a traditional college student is one who graduates high school and enrolls in college the following fall semester and who is under the age of 25 (as cited in Snyder & Dillow, 2011). For the study, only students ages 18-24 were a part of the sample studied.

Limitations and Assumptions

Considering the key elements of the study as well as its proposed research methodology, the following limitations were identified in this study:

Sample demographics. The sample studied limits the applicability of this study to other honors programs in the United States. Researchers, including Achterberg (2005), suggested it is difficult to make inductive generalizations about honors students, pointing the wide range of behaviors and personality types they exhibit. This study also failed to consider regional or institutional influences, either positive or negative, that may be present among the sample and the generated data about the sample.

Researcher bias. The researcher served as the director of the honors program in which the students participating in the study were enrolled.

Focus groups. This study utilized information drawn from answers provided by current and former honors program students during three focus group sessions. The information gathered through the focus groups was interpreted under the assumption that participants were truthful and under no coercive influence to answer in a particular way.

The following assumptions were accepted:

1. Data provided by the institution's Office of Institutional Research was appropriately generated and correctly provided to the researcher.

2. Responses of students to questions asked of them on the MBTI were provided with forthrightness and careful attention to personal interests, attitudes, inclinations, and honest reflection.

Summary

In this chapter, the study's key research questions were presented, each focusing on gaining information about the psychosocial development needs of traditional-age honors students at risk of failure in college. Also detailed in this chapter was the need for this information at this point in time as well as the conceptual framework that utilized the current primary student development theories by which the problem was considered. The use of personality typology research as a tool for gathering information about honors students and their psychosocial development was outlined and offered as a potentially significant method of considering the identified problem. Certain limitations and assumptions of the study as well as key terms and their definitions unique to the study were also provided. Chapter Two will offer a review of the literature appropriate to better understanding the problem, focusing exclusively on psychosocial student development theory, previous research concerning the attitudes and behaviors of honors

students, and the use of personality identity profiles such as the MBTI to enhance the understanding of individual attitudes and behaviors as well as in providing more precise support for their success, particularly in the college educational environment.

Chapter Two: Review of Literature

With the substantial increase in the number of honors programs in American colleges and universities since 1990 (Willingham, 2012), academic leaders and researchers, especially those in the honors or gifted education community, have called for more research in understanding their honors-level students' specific developmental needs and to practice educational nurturing of those students (Haas, 1992; Robinson, 1997). If the academic community fails to do so and proper support is not provided for students' developmental needs, these students will not fully benefit from the academic focus provided to them (Radomski, 2006). The purpose of this study was to examine how higher education leaders may be able to use psychosocial student development theory and research in the use of personality type to support college honors students who are at risk of losing the collegiate and career opportunities ahead of them.

This chapter reviews the more salient literature available today for considering and addressing the problem described, while also providing the background and theoretical context for the research. The review of literature served to not only provide the context of the problem and the research, but it also provided new insights in how the results of the research might be applicable in strategies to address the needs of college honors students. The review considered applicable psychosocial student development theories, research concerning at-risk student behaviors of honors students, and research concerning the MBTI as an instrument for considering individual personality types and their relation to behavior and/or attitude, especially college student behavior and attitudes. Included in this last topic of the review will be a focus on using the MBTI as a predictor of student success or as an indicator that an intervention strategy and/or a

change in the learning environment is needed to address the interfering behavior or attitude held by college students. Finally, a summary of the literature discussed will aid in providing the context for choosing the appropriate methodology for the research proposed.

Psychosocial Student Development Theories

Issues of academic success for college students, such as the focus of this research, are, according to Pattengale (2005), "best understood against the background of student development theory" (p. xi). Psychosocial student development theories, such as that of Chickering (1969) and later Chickering and Reisser (1993) and Astin (1999), consider "changes in feelings, beliefs, and values over time and developmental processes related to identity, vocational goals, life purpose, and relationships (Chickering & Reisser, 1993; Polkosnik & Winston, 1989)" (Skipper, 2005, p. 8). Of particular interest to this study are those issues related to identity found in these student development theories.

Chickering and Astin's theories, the two primary theories used by educators and student affairs professionals today, are based on the ideas of noted psychologist and researcher Erikson (1968) who utilized Freud's ego identity, "a concept that posits identity as a stage of ego growth" (Torres, Jones, & Renn, 2009, p. 578). Essentially, Erikson (1968) identified eight stages of an individual's identity development. In the crucial adolescent stage, the individual must pass through and resolve a series of adolescent "crises" or "turning points" to achieve a healthy identity and personality. In this process, the individual transitions from one stage to another, developing the "prerequisites in physiological growth, mental maturation, and social responsibility to experience and pass through the crisis of identity" (Torres et al., 2009, p. 91). Erikson

wrote in his, *Identity: Youth in Crisis* (1968), about the result of passing through these stages but also about the importance of the relationship between the individual and the social institutions they encounter during the crises:

> From the stages of life, then, such dispositions as faith, will power, purposefulness, competence, fidelity, love, care, wisdom–all criteria of vital individual strength–also flow into the life of institutions. Without them, institutions wilt; both without the spirit of institutions pervading the patterns of care and love, instruction and training, no strength could emerge from the sequence of generations. (p. 141)

Strengthening the "patterns of care and love, instruction, and training" in the processes of higher education was a key concern of Chickering (1969), who, after years of observation and research on college campuses during the 1960s, used Erikson's identity theory to analyze the developmental phases of traditional-age college students and then to propose how an understanding of those phases could lead to better strategies for colleges and universities to serve those students.

In brief, Chickering (1969) said a traditional-age college student moves through a complex system of seven vectors that, if shaped positively, promote a student's personal growth as well as his or her potential to benefit from the surrounding academic environment. These seven vectors are, first, developing competence in intellectual, physical and manual skills, and interpersonal skills; second, managing emotions including an awareness and acknowledgement of them; third, moving through autonomy toward interdependence, i.e., self-sufficiency and responsibility; and, fourth, developing

mature interpersonal relationships, characterized by tolerance and appreciation for differences, as well as the capacity for intimacy (Chickering, 1969).

The fifth vector, which is especially useful to this study, considers adolescents establishing their identity, evidenced by comfort with body and appearance, comfort with gender and sexual orientation, sense of self in various contexts, clarification of self-concept through roles and lifestyle, sense of self in response to feedback from valued others, self-acceptance and self-esteem, and personal stability and integration (Chickering & Reisser, 1993). The sixth vector considers adolescents developing purpose in vocational and personal interests, and interpersonal and family commitments, while vector seven views their developing integrity demonstrated by the clarification of core values and beliefs (Chickering & Reisser, 1993).

Students' success in reaching these vectors helps determine the quality of their experience in the college environment, Chickering and Reisser (1993) explained, affecting not only personal growth but also institutional outcomes such as retention and graduation rates. As a result of Chickering's (1969) research and subsequent application of its results and recommendations in the higher education institutions around the world, other researchers have utilized the Chickering student development theory to frame their own theories and models (Pascarella & Terenzini, 2005; Terenzini, & Reason, 2014). Among these researchers are Astin (1999) and his consideration of student involvement and Tinto (1993, 2012) and his work on student retention/attrition and student success (Skipper, 2005).

Astin's (1999) theory of student involvement "refers to the quantity and quality of the physical and psychological energy that students invest in the college experience" (p.

518). Astin (1999) defined a highly involved student as one who "devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students" (p. 518). The theory postulates that as a student's involvement increases his or her learning and personal development increases accordingly (Astin, 1999).

The student involvement theory has five basic aspects. Astin (1999) said "involvement refers to the investment of physical and psychological energy in various objects," and secondly, he noted that "different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times" (p. 519). Next, he said, involvement has both quantitative and qualitative features, adding "the amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program" (Astin, 1999, p. 519). For what may be the most important point for program developers and administrators, Astin said, "the effectiveness of any educational policy or practice is directly related to the capacity" (p. 519).

Astin (1999) contended his theory focuses on the 'how' of student development, not the 'what' as Chickering's (1969) does. In other words, Astin (1999) provided the "behavioral mechanisms or processes that facilitate student development" (p. 522). He suggested his theory be considered and used alongside Chickering's, (Astin, 1999). In particular, Astin (1999) said a focus on maximizing effective student involvement among traditional-age college students improves the student's engagement in the classroom as he or she interacts with content matter, in the learning environment as he or she engages

resources on campus, and in the developmental phases, such as those outlined by Erikson (1968) and Chickering (1969), through individualized approaches in advising, career counseling, leadership development, etc., (Astin, 1999). Intentional strategies designed to enhance and further student involvement, Astin (1999) said "can provide a link between the variables emphasized" in these three areas "and the learning outcomes desired by the student and the professor" (p. 522). Concerning his student involvement theory, Astin (1999) added an important contextual reference for this study on psychosocial student development and honors students:

> [The theory] encourages educators to focus less on what they do and more on what the student does: how motivated the student is and how much time and energy the student devotes to the learning process. The theory assumes that student learning and development will not be impressive if educators focus most of their attention on course content, teaching techniques, laboratories, books, and other resources. With this approach, student involvement – rather than the resources of techniques typically used by educators – becomes the focus of concern. (p. 522)

Noted student success researcher Vincent's (1982, 1993, 2012) model of student departure is closely aligned with Astin's (1999) involvement theory; however, while Astin's (1999) theory focuses on the individual student's psychological need for interaction in his or her learning environment, "Tinto's theory is sociological in nature, focusing on the actions of others and how those actions work to shape the formal and informal communities in which students operate" (Skipper, 2005, p. 68). These communities fall in two primary areas: academic and social. The extent of the student's

integration into these communities determines college persistence. Tinto (1982) explained that, although his model took into account individual attributes of the entering student, “the model did not focus directly on those characteristics other than as they interfaced with the collective attributes and orientations of the academic and social systems of the institution in which individuals experience their educational careers” (p. 688). Tinto (1982) added:

> Although the model recognized the obvious fact that many students leave because of unwillingness to attend to the demands of higher education, it attempted to ask how institutions themselves are at least partially responsible for the dropout they now seek to remedy. By inference it posed the policy question of how institutions can change themselves to reduce that attrition. (p. 688)

In addition, Tinto (1982) noted these weaknesses in the completeness of his model on student disengagement from the higher education environment:

> It does not adequately distinguish between those behaviors that lead to institutional transfer and those that result in permanent withdrawal from higher education . . . . Finally, it is not very sensitive to forms of disengagement that occur within the two-year college sector. (p. 689)

An important revision to Tinto’s theory came from Bean and Eaton (Johnson, Wasserman, Yildirim, & Yonai, 2014), who considered the student’s "locus of control," or his or her creation of an internal or external view for past experiences. In brief, the researchers noted students with an internal locus of control and a strong personal sense of motivation believed themselves to have more control over their college success, and, “as

such, they are more likely to develop positive coping strategies that bring them into contact with the academic and social environments of the institution rather than cause them to retreat from challenges" (Skipper, 2005, p. 71). As a result, college academic administrators and student affairs personnel should work to increase academic and social integration among students at risk of failure, e.g, first-year students, first-generation students, and others with noted obstacles to success. When academic and social integration is heightened, these so-called at-risk students have a greater sense of self-efficacy and subsequently more confidence to tackle the challenges of college life (Skipper, 2005).

In summary, King and Howard-Hamilton (2000) contended that psychosocial theories, such as those of Chickering (1969), Astin (1999) and Tinto (1982) focus on "the 'what' of development," in other words, "the specific issues that people address at different times in their lives" (p. 30). Traditional college-age students are, in particular, among the most affected by these issues due to their transition from the high school classroom and living at home to the college classroom and, for many but certainly not all, living away from home for the first-time. In their overview of why institutional researchers should consider using student development theory to consider their students and to assess the learning environment of their respective institutions, King and Howard-Hamilton (2000) suggested using the psychosocial development theories to "figure out why students leave a campus" and "why grade point averages are higher among learning community participants," adding that "basic institutional findings on student retention, success, and perceptions of the university could be explained by reference to concepts discussed by psychosocial theories" (p. 30).

Finally, in support of psychosocial student development theories, such as Chickering's (1969) but in criticism of researchers who have focused too closely on specific student populations thus reducing the complexity of the "whole student" to constituent parts, Torres et al. (2009) advocated for a new way of considering today's multi-dimensional college student in an "ever-changing context" (p. 590):

> The tensions between understanding the whole without erasing its distinctive parts and between working with postmodern and critical theories in tandem with some of the useful and informative structural theories will become central to the study of college student identities in the next decade. We expect that studies of, for example, identity and identity development in emerging adulthood, the presence of "college student" possible selves, and the influence of cultural milieu on identity development will inform theory and student affairs practice. (pp. 590-591)

In other words, they claimed the whole student should be the focus of any application of the student development theories. It appears that, in general, research focused on the honors student desires to consider the student as a whole, most likely due to the hesitancy in blaming the student's intellectual capability for any at-risk behavior. This hesitancy may be to blame for a lack of research in this area.

At-risk Behaviors and Attitudes Among College Honors Students

With the increase in honors programs at colleges and universities around the United States over the past two decades (Willingham, 2012), one would think researchers would have similarly increased their interest in assessment of honors education and in

analysis of the honors student. Rinn and Plucker (2004) showed in their review of available research on honors education assessment that while a multitude of articles and books considered the experience of students in gifted education on the elementary and secondary education levels, researchers as of 2004 had yet to substantially extend their efforts to the college campus. Achterberg (2005) reported a "severe lack of descriptive evidence, comparisons, or empirical data based on the respectable sample sizes" in her review of the literature about differences between honors and non-honors students in higher education (p. 5).

Since 2005, progress in learning assessment of honors programs and their students has primarily centered around a "talking set" of measurable outcomes proposed by the National Collegiate Honors Council (NCHC), the primary academic organization focused on college honors education (Lanier, 2008). The outcomes suggested include the expectations that students will think critically and creatively; read critically; employ an effective process to produce clear, persuasive writing; conduct research effectively; take risks with learning; demonstrate cultural, aesthetic and gender sensitivity; participate actively and effectively in large and small groups; assume multiple roles in groups; demonstrate responsibility outside the classroom and school; demonstrate awareness of the 'outside world'; appreciate learning for its own sake; appreciate diversity; and demonstrate personal integrity (Lanier, 2008).

Others in the higher education improvement and honors communities–leaders such as Betsy Barefoot (2011, March 11) of the John N. Gardner Institute for Excellence in Undergraduate Education as well as Marion Schwartz of Penn State University, a noted proponent of using academic advising as the key to addressing problems with

attrition and under-performance of honor students (Schwartz, 2007) are focusing on the central questions surrounding these outcomes as well as the best methods to assess them. According to Lanier (2008), the questions being asked and needing to be asked focus on knowledge of outcomes. Essentially, Lanier (2008) said researchers and educators have yet to determine what types of evidence show honors students have actually achieved the stated outcomes. He wondered if honors programs really provide the educational opportunities and curricular structures that enhance their students' ability to attain these outcomes and goals, and questioned whether or not academic administrators are able to consistently measure outcomes such as 'thinks critically' or 'achieves strong analytic skills' given the breadth of a typical honors program (Lanier, 2008). Finally, he challenged the purpose and nature of any established outcomes, asking where in the honors curricula do honors students demonstrate these skills and aptitudes for faculty to gauge? (Lanier, 2008)

While substantiating the effectiveness of honors programs to increase learning among the academically gifted, assessment and any associated outcomes should also be effectively used to understand the psychosocial development challenges of these students and, at the same time, increase their learning in and out of the honors environment. Robinson's (1997) research showed that, saddled with the typical college student's at-risk characteristics (e.g., first-generation status, low-income, financial limitations), gifted students also face unique adjustment challenges in terms of their social development. These challenges, Robinson (1997) noted, include easily earning a top spot in their class and thus developing poor study and time management skills, feeling pressured by having classmates of equal or better achievement, accepting one's first grade below an A,

identifying strengths, weaknesses and preferences, wrestling with the first need to ask for help or assistance, not having the skills or past experiences needed to cope with college, and, for minority students, integrating their lives as students with their families and friends when they are not on campus or in an academic setting. If the honors student is an individual of color, he or she often feels his or her academic success will be perceived as less attractive by others or even intimidating to others; this is especially true for women of color (Noldon & Sedlacek, 1996).

In her recommendations to academic advisors concerning honors students, Schwartz (2007) reiterated a warning from Callard-Szulgit (2003) stating many of these students will "be more vulnerable to academic-related stress, especially with regard to issues of control and failure" (p. 179). Schwartz (2007) also noted the need to work with honors students concerning prioritization of obligations and time management and to intervene to "get students beyond emotional paralysis," adding, "If there is any doubt about the student's state of mind, advisors should refer them to counseling" (p. 179). Of particular concern, Schwartz (2007) said, is the observation that honors students may depend on their parents' valued opinion more than other students. Schwartz (2007) noted, "They feel obliged both to keep up the image of high achievement and to maintain the scholarship that goes with it" (p. 179).

As part of his much broader work, Astin (1999) recognized the positive effects of an honors program, noting "students who participate in honors programs gain substantially in interpersonal self-esteem, intellectual self-esteem, and artistic interests" (p. 525). Honors students who remain a part of a formal program are also more likely to stay in college, aspire to graduate and professional degrees, and work more closely with

faculty members, all indirect outcomes that learning is occurring. In his suggestions for additional research, Astin (1999) wondered if certain types of involvement produced student development, such as that proposed by Chickering (1969). He also said it would be "useful to determine whether particular student characteristics … are significantly related to different forms of involvement and whether a given form of involvement produces different outcomes for different types of students" (p. 527).

In 1993, however, Astin (1993), in contrast to his earlier work, found no correlation between being in an honors program and the student's grade point average. According to Slavin et al. (2008), Astin failed to find "associations with respect to [honors students'] self-reported growth in general knowledge, critical thinking skills, writing skills, leadership, or satisfaction with the overall college experience" (para. 3). In their own study, Slavin et al. (2008) reported there was no correlation between being in honors and graduation; however, they observed a correlation between participating in a four-year honors program and retention at the institution after one-year. The researchers noted their "analyses were silent on how" (paras. 23-24) that occurred and why (Slavin et al., 2008).

Scager et al. (2011) asked in their research if honors students and non-honors students differed in the talent factors of intelligence, creative thinking, openness to experience, persistence, and the desire to learn and the drive to excel. The results showed honors students to be significantly different from non-honors students in terms of the combined as well as the separate variables, with the exception of persistence. Scager et al. (2011) also asked,

> which of the talent characteristics contributed most powerfully to the differentiation between honors and non-honors groups. The strongest distinguishing factors for honors and non-honors students appeared to be the desire to learn, the drive to excel and creative thinking, while intelligence and persistence did not differentiate groups very much. (p. 30-32).

A similar study considered the differences between gifted students and at-risk students, suggesting psychosocial factors may influence achievement of gifted students (Worrell, 2007). The study's findings indicated factors, such as "task commitment, self-efficacy, self-regulation, motivation, and future time perspective" (p. 4) may serve as "protective factors" in at-risk youth, while the lack thereof in gifted youth may be hindrances to their academic success.

A final example of research using student development theory to consider student learning is that of Seifert, Pascarella, Colangelo, and Assouline (2007), whose study on the effects of honors programs on student learning outcomes is perhaps the most expansive (i.e., across multiple institutions and number of students) of any to date. The first of their four hypotheses used 20 "good practice measures" identified by Chickering and Gamson (1999) related to the "in-class college experience." Testing that hypothesis, Seifert et al. (2007) found "honors program students reported significantly greater exposure on six of the 20 established good practices during the first year of college than did their non-honors counterparts" (p. 69). These six practices included, 1) the extent of course-related interaction with peers, 2) academic effort and involvement, 3) number of textbook or other source material readings, 4) instructor use of higher order questioning

techniques, 5) instructor feedback to students, and 6) instructor skill and clarity (Seifert., 2007).

The Seifert et al. (2007) also found participation in honors programs "also appeared to enhance cognitive growth during the first year of college," especially in "composite cognitive development as well as on the constituent mathematics and critical thinking scores" (p. 65-66). Reading comprehension, however, did not show significant improvement. Seifert et al. (2007) were also surprised the effects of an honors program experience not only persisted beyond their first-year experience, but they also increased slightly in magnitude. Additionally, Seifert et al. (2007) noted certain student demographic groups were more greatly affected:

> … honors program participants had significantly stronger net effects on composite cognitive development for men than for women and for students from families above the median parental income versus their peers from families below the income median. … Although honors participation had only a trivial influence on reading comprehension for White students, it had a significant positive net effect for students of color. (p. 70)

Although 14 of the 20 'good practices' were not shown to be accentuated by an honors program experience and certain variables need to be controlled in order to determine more distinctly the effects of honors program participation, the Seifert group's findings are important. In particular, Seifert et al. (2007) singled out their value to institutional decision-makers considering the viability of such programs, the varying

components that make up the learning environment they create, and how students participating in them can have greater access to the learning provided through them.

The Myers-Briggs Type Indicator

The MBTI is today the most widely utilized psychological tool for 'normal people' in the world (McCaulley, 2000; Schaubhut et al., 2009). Counselors, educators, and human resource officers use the MBTI in their work with adults, students, children, employees, administrators, couples, families, and groups of many kinds and purposes. For educators, the MBTI provides the means of understanding "differences in teaching styles, learning styles, academic attitudes, achievement and motivation, dropout, and college roommate matching" (McCaulley, 2000, p. 113). From the number of researchers using the MBTI in their varying areas of study, a handful of whom are considered in this review of literature, the tool is being used in a multitude of ways to assess an individual's temperament, attitude, inclination, and natural strengths and weaknesses in particular activities of life, vocation, and education.

The theoretical basis. Based on Jung's psychological typology theory (McCaulley, 2000), the MBTI provides an assessment of an individual's four preferences self-reported by the individual via answers to a series of 93 questions. The selected preferences and their relative intensity are one side of four pairs of opposite preferences called dichotomies. The dichotomies, separated here by their categorical function within the overall personality trait, are

- Attitudes toward the world: Extroversion (E) or Introversion (I), which concern where an individual focuses his or her attention;

- The Four Functions or mental processes: Sensing (S) or Intuition (N), which concern how a person takes in information; and Thinking (T) or Feeling (F), which concern how an individual makes decisions; and
- Orientation to the world: Judging (J) or Perceiving (P), which concern how a person deals with the outer world. (Schaubhut et al., 2009, p. 4)

According to Jung's theory, "the tensions and striving for balance between opposites create the dynamic interplay that leads to growth [in the individual]" (McCaulley, 2000, p. 115). Typology theory and the MBTI are concerned with types, not traits, as some other psychological or personality instruments are (McCaulley, 2000; Schaubhut et al., 2009). Every individual falls in one of the 16 types, which are the combination of the four selected preferences exhibited via their varying range of intensity, with each type equally as valuable as any other (Schaubhut et al., 2009).

The attitudes. McCaulley (2000) explained that Jung saw individuals having two attitude preferences, or two ways of "orientation to the world." These two are the more commonly known preferences of extroversion and introversion. Extroversion describes the attitude where the person's energy flow is outward or is drawn out of the individual toward the world (McCaulley, 2000). Introversion is the opposite, where the attitude is such that the person's energy flow is inward or is drawn from his or her environment and then directed toward the inner world of concepts and ideas (McCaulley, 2000).

Extroversion (E), McCaulley (2000) noted, is the attitude in which "the world provides stimulation, and we wish to interact with the people and things around us" (p. 117). The characteristics associated with a clearly defined Extroversion preference include "sociability, action orientation, impulsivity, and ease of communication" (p. 117).

Other characteristics identified by other personality instruments with strong correlation with the MBTI include "dominance, leadership, expressed inclusion, expressed affection, exhibitionism, and being venturesome" (McCaulley, 2000, p. 117).

On the opposite range of the attitudes is Introversion (I), which "in Jung's theory, is an important normal variant of human personality," according to McCaulley (2000, p. 117). The characteristics associated with a clearly defined Introversion preference include an "interest in the clarity of concepts and ideas, reliance more on enduring concepts than on transitory external events, a thoughtful, contemplative detachment, and enjoyment of privacy" (McCaulley, 2000, p. 117). Associated characteristics from other instruments include being "self-sufficient, reserved, and introspective" (McCaulley, 2000, p. 117).

McCaulley (2000) noted society appears to value the extravert more than the introvert, so much so that many introverts report feelings of being different than the rest of the world. Extroversion has many positive qualities associated with it, such as "ego strength and emotional stability, personal integration, and self-esteem" (McCaulley, 2000, p. 117). Contrastingly, introversion has negative associated qualities, including "anxiety, guilt, and neuroticism" (McCaulley, 2000, p. 117). Some of these contrasting qualities come from the extravert's natural comfort and ease with his or her environment, while some of the negative qualities for the introvert may come from society's view of them and the failure to appreciate the not-so-obvious strengths of the introvert (McCaulley, 2000). In giving advice to counselors in the use of the MBTI, McCaulley (2000) included the observation that extraverts often "look more to others and less to

themselves as the cause of their problems," while introverts are "likely to blame themselves for their difficulties" (McCaulley, 2000, p. 117).

The four functions. The 16 MBTI types are built from two preferences selected from the four functions, or mental processes, according to McCaulley (2000) who worked with Katherine Briggs and Isabel Myers in the latter development of the MBTI. The four functions are sensing (S), intuition (N), thinking (T), and feeling (F). Jung's research indicated "all conscious mental activity falls into one of these four categories. Sensing and intuition refer to two different kinds of perceiving; thinking and feeling refer to two different kinds of judging" (McCaulley, 2000, p. 115).

The first of the four functions, McCaulley (2000) explained, is Sensing (S), which "refers to perception of the senses, and brings to awareness what is occurring in the present moment" (McCaulley, 2000, p. 115). Characteristics associated with a clearly defined Sensing preference include "realism, acute powers of observation, memory for details, practical common sense, and the ability to enjoy the present moment" (McCaulley, 2000, p. 115). Other Sensing characteristics noted by other personality instruments associated the MBTI include "practical outlook, economic interests, conventional, natural, favors conservative values, uncomfortable with complexity, contented" (McCaulley, 2000, p. 115).

Intuitive (N) "refers to perceiving the intangible by way of insight . . . . Characteristics associated with a clearly defined Intuitive preference include future possibilities, associations, meanings, abstractions, symbols" (McCaulley, 2000, p. 116). Other Intuitive characteristics cited by other personality instruments include "complexity,

academic interests, individualistic, artistic, creative, theoretical, foresighted, resourceful" (McCaulley, 2000, p. 116).

Thinking (T), the third function according to McCaulley (2000), "is the rational process that reaches conclusions through an impersonal process of logic or cause and effect" (p. 116). A clearly defined Thinking preference has the characteristics of "objectivity, analytical ability, skepticism, critical judgment, and concern with justice and fairness" (McCaulley, 2000, p. 116). Correlating characteristics from other instruments include "mechanical, skeptical, masculine orientation, theoretical, distrust, dominance" (McCaulley, 2000, p. 116).

Finally, McCaulley (2000) said, Feeling (F) "is the rational process that reaches conclusions by weighing values and the merits of people, things, and ideas" (p. 116). The clearly defined Feeling preference exhibits characteristics of "appreciation, empathy, desire for harmony, and an understanding of and concern for other people" (McCaulley, 2000, p. 116). Other instruments show strong correlations of "nurturance, affiliation, altruism, tender-minded, social and religious values" (McCaulley, 2000, p. 116).

The orientations. The last two preferences, Judging (J) and Perceiving (P), pertain to the individual's orientation to the external world, McCaulley (2000) reported. Unlike the six other MBTI preferences, Judging and Perceiving influence whether a person's extraverted behaviors (which even introverts have) are "more likely to reflect the perceptive functions (S [Sensing] or N [Intuition]) or the judging functions (T [Thinking] or F [Feeling])" (McCaulley, 2000, p. 118). The JP dichotomy identifies, first, certain characteristics associated with the respective preference in and of itself and,

second, “the dynamic pattern for each type by pointing to the dominant and auxiliary functions” (McCaulley, 2000, p. 118).

Perceiving (P), explained McCaulley (2000), refers to the attitude of “seeing everything, and being curious and interested” (p. 118). Characteristics associated with perceiving from other personality instruments strongly correlated with the MBTI include “complexity, flexibility, autonomy, change-as-challenge, and happy-go-lucky” as well as “impulsivity, rebellious, procrastinating, changeable, and restless” (McCaulley, 2000, p. 118).

McCaulley (2000) said that at the other end of this range is Judging (J), which has the characteristics of “self-control, stronger superego, rule-bound, and dependability;” associated characteristics from other instruments include “judgmental or closed-minded” (p. 118).

General application of the dichotomies by mental health professionals. The MBTI typologies in general and the dichotomies in the particular have been utilized by mental health professionals in dealing with individuals experiencing identity confusion or dissonance (McCaulley, 2000). The counselor uses the MBTI types to first understand the characteristics of each identified type and then to develop a mitigation plan around the type’s intrinsic strengths (McCaulley, 2000). To do so, McCaulley (2000) pointed out the need to consider each person’s dominant preference, as “the dominant function provides consistency of general direction in life. In normal development, the dominant is the most conscious, most differentiated function. Interests, motivations, and skills come from its use” (p. 119).

The personality, McCaulley (2000) said, requires balance, and the auxiliary function develops in such a way to provide that balance. McCaulley (2000) explained that because the dominant and auxiliary functions provide, respectively, an adaptation to the outer world and the other to the inner world, the individual with a well-developed personality type will be deal more comfortably with the external and internal events. This includes having the skills to process information and make decisions, two skills generally believed to be important to the success of college students.

The remaining functions are less developed but still necessary. The fourth or inferior function is in opposition to the dominant function, and "it is assumed to be nearest the unconscious, a powerful source for growth" (McCaulley, 2000, p. 120). It is, however, the function most vulnerable to the individual, McCaulley (2000) said, explaining that the fourth or inferior function is often left unattended when the individual naturally and inherently focuses on his or her strength, the dominant function. This deficiency, then, can be and should be the focus of a counselor's attention, working with the individual to strengthen that particular function and thus making them a more whole person (McCaulley, 2000).

The development of the varying types is a lifelong process, McCaulley (2000) explained. She pointed out in particular, however, the struggle of youth who are in a "time of specialization . . . developing the dominant and auxiliary functions. The journey toward wholeness seeks individuation – loyalty to one's own type preferences, with an increasing ability to move from one preference to another with ease and skill as the situation demands" (McCaulley, 2000, p. 121).

McCaulley (2000) offered this scenario of the skilled counselor using the MBTI for the benefit of his or her client:

> The counselor using the MBTI first helps the client identify the type that fits best. The history and presenting problem enter into assessment of the client's ability to perceive clearly (through sensing or intuition); and to make good decisions (through thinking or feeling). The counselor also helps the client discover whether energy is focused on the external world of people and things (extroversion) or on the inner world of ideas (introversion). (p. 121)

By using the MBTI, counselors–including academic advisors and career counselors–are able to design strategies to

> . . . establish rapport with clients, increase self-understanding and hope, provide a framework for interpreting other tests, individualize the stages of career counseling, improve problem-solving and teamwork for individuals and groups, help students manage their learning . . . teach effective strategies for coping with change, illness, substance abuse, family violence, and other life stresses. (McCaulley, 2000, p. 122)

In general, McCaulley (2000) added, the counselor can use the MBTI and the individual's type preferences to simply affirm the person's strengths or gifts. Other times, the focus is on developing the dominant and auxiliary functions while helping the person to understand how the inferior function can negatively affect him (McCaulley, 2000). That may include helping the individual to understand how their activity in their environment and their energy in doing that activity are affected by their extroversion or

introversion. Other times, the counselor may need to help the individual understand how type differences are interfering with relationships and/or communication with others and how to approach the situation to ease the interference (McCaulley, 2000). Finally, McCaulley (2000) provided this summary:

> When used appropriately and competently, Jung's model and the MBTI can foster an appreciation of one's own individuality and gifts, and a greater understanding of others. Differences are valued, and used constructively rather than destructively. As counselors help clients gain greater command of their dominant and auxiliary functions, and less vulnerability to their inferior function, the type development process leads to more consciousness in all spheres of their lives. (p. 122)

The use of the MBTI by educators and other researchers. To date, no researchers have suggested using the MBTI as a tool to assess the at-risk behaviors and attitudes of traditional-age college honors students; however, there are a handful of researchers who have provided information and methodology similar to and/or useful to this study. Of particular importance to this study, researchers have found valid application of the MBTI to academic success, including "type differences in academic attitude, achievement, learning styles, and teaching styles" (McCaulley, 2000, p. 153).

Through the use of the MBTI and subsequent analysis of that use, researchers have determined that students with the intuition preference have an advantage in high school and college, while those with the perceiving preference do well because of their natural curiosity and gathering of a wide-range of information (McCaulley, 2000). According to McCaulley (2000), Judging types tend to make better grades, while

Introvert-Intuitive students tend to score higher on aptitude and academic achievement tests, pursue graduate degrees, and seek knowledge for its own sake. On the other hand, Extravert-Sensing types are more likely to see knowledge for practical purposes (McCaulley, 2000). Also, individuals who have the Intuition preference and to a lesser degree those with the Perceiving preference tend to significantly have more characteristics of creativity (McCaulley, 2000).

Other researchers such as King and Howard-Hamilton (2000) saw the benefit of using the MBTI in assessing the student development needs of college students, noting that the type preferences can explain differences in satisfaction with student services and the level of successful engagement with services such as residential programs and learning communities. The MBTI types could be used to explain "the instructional abyss many students experience owing to major stylistic differences between the preferred learning styles of many students and their faculty instructors (Schroeder, 1993)," as quoted by King and Howard-Hamilton (2000, p. 34).

Horton et al. (2009) utilized the MBTI in a very similar manner proposed for this study. The researchers asked which of the MBTI personality types among a higher education institution's hospitality and tourism management students were most likely to succeed academically. Horton et al. (2009) suggested that if a student's academic success could be predicted with some reliability, then that student's personality profile assessed by the MBTI could be analyzed and appropriate intervention measures taken to offset the negative influences of personality on student success. While their methodology was strictly quantitative using a chi-square analysis, Horton et al. (2009) asked if a correlation existed between three subcategories of students with overall college GPAs at

varying levels (poor performers, moderate performers, and top performers) and their MBTI type preferences.

The results of the Horton et al. (2009) research showed hospitality and tourism students were more likely to have type preferences of extroversion and sensing. There was also a significant difference in performance on the Judging-Perceiving dichotomy, in that perceiving students were more likely to be low academic performers than students with a judging preference; yet, there was no significant difference, however, between students with judging or perceiving types among top performers (Horton et al., 2009). When performance was compared across all four of the MBTI types, two types, the ESFP and ESTP, had significantly more students with poorer GPA performance, while students with an INFJ, INTJ and ISTJ had more top performers (Horton et al., 2009).

The correlation of student personality type to their performance on an osteopathic medical school's admission test and the osteopathic medical licensing exam was the focus of a study by Sefcik, Prerost, and Arbet (2009), who found that, of the MBTI mental-function pairs of sensing-thinking, intuition-thinking, sensing-feeling, and intuition-feeling, students in the intuition-feeling group has statistically lower scores on the licensing exam. The researchers planned to use the results of the research to design better approaches to helping students prepare for the licensing exam based on "test-taking techniques for their individual personality types" (Sefcik et al., 2009, p. 300).

A similar study conducted by Behar-Horenstein et al. (2011) sought to determine the correlation, if any, between student attributes assessed by several different instruments, including the MBTI, and students passing the National Board Dental Examination. In their research, Behar-Horenstein et al. (2011) found that the MBTI type

preference for thinking over feeling was predictive of passing both portions of the two-part test. Behar-Horenstein et al. (2011) expected to use the results to hone dental admission policies and processes as well as to improve teaching methodology. They also said understanding "the relationship between students' . . . MBTI attributes and their non-cognitive performance in preclinical and clinical courses could also be used to depict the relationships among teaching, learning, and student dispositions in clinical learning environments" (Behar-Horenstein et al., 2011, pp. 542-543).

Using the MBTI in improving the learning resources of students in and out of the classroom was the focus of Behaz and Djoudi (2012) and separately of Richardson and Arker (2010). Behaz and Djoudi (2012) wondered if educators could use cognitive theories, such as that foundational to the MBTI to adapt educational resources to enhance the learning of students in the classroom and online. Essentially, Behaz and Djoudi (2012) personalized a web-based, distance learning environment based on the learning preferences generated by the MBTI. Richardson and Arker (2010) similarly looked at how MBTI type profiles of their students could be used to adapt scheduling, self-directed learning experiences, and critical thinking and problem-solving exercises to enhance the learning of their students.

Researchers at the University of Tennessee-Knoxville, wondered if there was a correlation between graduation success and MBTI type distributions among their engineering students. Parsons, McCord, Seat and Scott (2008) noted their institution's struggle to retain students and subsequently graduate more students, and they came to accept the concept that knowing a student's learning style via his or her personality type and then adapting certain teaching methods to match that style could improve retention

among engineering students. Based on research of McCaulley (2000) and others, Parsons et al. (2008) designed a new curriculum model on Jung's typology theories as represented by the MBTI. To test its effectiveness, first-year engineering students were divided into two groups, those with the standard basic engineering curriculum and those learning under the new curriculum, which they called the Engage Program (Parsons et al., 2008). The researchers reported that "the effect of the curriculum change was generally small and not statistically significant for most types" (Parsons et al., 2008, p. 7). There was significant change, however, in the ESTJ and ISTJ types, they said, where a significant increase in graduation rates was observed (Parsons et al., 2008).

This was considered surprising because the presumption that the integrated and collaborative Engage curriculum would broaden the success of the less common MBTI types (Parsons et al., 2008). The authors postulated that since the new six-credit-hour, integrated courses were more complex and required following extensive rules and procedures for success, that this fit well with the practical, organized, and "follow the rules" nature of the SJ temperament (Parsons et al., 2008).

In subsequent test years, Parsons et al. (2008) reported similar results, with increases in graduation rates significantly correlating to the "practical and logical SJ temperament type" and increases for the "spontaneous and reality-based SP temperament close to statistical significance" (p. 9). There was not a clear pattern or significant correlation for changes in the graduation rates of the NF or NT temperaments, they added (Parsons et al., 2008).

Finally, in what appears to be the only research report about using the MBTI in considering the attitudes and behaviors of honors students, Foong, Shariffudin, and

Mislan (2012) sought to understand the personality types of high-achieving students in Malaysia. Using three types of personality inventories, the quantitative study found a majority of the students were extrovert-intuitive types, and in addition, there were some significant correlations between the MBTI types and the multiple-intelligence indicators (Foong et al., 2012). Overall, the results showed "a marked difference between personality traits, critical and creative thinking and multiple intelligences between high achievers and normal students" (Foong et al., 2012, p. 209). Foong et al. (2012) added, "With the emergence of learning with computer technology the task of providing learning environments suited to the high achievers personalities, multiple intelligences and critical and creative thinking may not be impossible" (p. 209).

Summary

The review of the literature for this study found reinforcing support for the use of the psychosocial student development theories in considering the lack of success of college students in general. The review, however, found a minimal amount of research using these theories to specifically address the at-risk attitudes and behaviors jeopardizing the academic and career opportunities for college honors students. Clearly evidenced by the literature as an established and well-respected instrument in the mental health and counseling areas, the MBTI was found in numerous research projects focused on individuals in a state of identity confusion, such as that often experienced by traditional-age college students. Some of these research projects have considered the applied use of the MBTI in working with specific groups of college students and the factors influencing their academic success; none of them, however, considered the correlation of MBTI typology data and the success or failure of honors students.

From the literature review, then, this study designed and utilized a mixed methods methodology that, first, quantitatively considered the academic success of honors students in a college honors program in respect to their MBTI typology and, second and in support of the quantitative data analysis, qualitatively considered individual experiences from a sampling of these students to provide a clearer context for analysis.

Chapter Three: Methodology

This study sought to find a connection between psychosocial student development theory and the use of a personality typology instrument in order to provide information to better address the behaviors and attitudes unique to college honors students that put those students at risk of failure (Grobman, 2006). Chapter Three will explain the research design of the study, the purpose of the study, and the accompanying research questions. In addition, the study's population of honors program students is described, the instrumentation used in generating the students' personality profile data is explained, and the collection and analysis of the data in this mixed methods research is considered for efficacy, quality, and appropriateness to the study's purpose and questions.

Problem and Purpose Overview

This study examined how academic leaders coordinating a comprehensive collegiate honors program can use psychosocial student development theory and personality identity profiling to better support college honors students, whose attitudes and behaviors unique to them as honors-level students could potentially put them at risk of losing the collegiate and career opportunities that lie ahead.

Research questions. Given the deficit in present knowledge of how to better support honors student success in college, this study addressed these questions and null hypotheses:

1. What difference, if any, exists between MBTI personality typology and retention rates in college?

H_0: There is no significant difference between the college honors student's identified MBTI personality type and his or her retention in college at the 0.05 level.

H_1: There is a significant difference between the college honors student's identified MBTI personality type and his or her retention in college at the 0.05 level.

2. What difference, if any, exists between MBTI personality typology and success in college, as determined by a 3.5 GPA or higher attainment level at the completion of a student's degree program, upon transfer, or upon withdrawal?

H_0: There is no significant difference between the college honors student's identified MBTI personality type and his or her success in college at the 0.05 level.

H_1: There is a significant difference between the college honors student's identified MBTI personality type and his or her success in college at the 0.05 level.

3. From a sample of students who were retained/not retained in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors and/or attitudes associated with honors students did the students report experiencing?

4. From a sample of students who succeeded/did not succeed in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors/attitudes associated with honors students did the students report experiencing?

Research Design

Silverman (2013) recommended that, in choosing a research methodology, especially a mixed methods approach, the researcher must have an appropriate purpose for selecting that particular method. According to Silverman (2013), however, if triangulation is used, the researcher should abide by two key rules: 1) "Always begin from a theoretical perspective or model" and 2) "Choose methods and data that will give you an account of structure and meaning from within that perspective (e.g., by showing the structural contexts of the interactions studied)" (p. 157).

Although Yin (2011) seemed to disagree with Silverman (2013) over the need to begin with a concept in mind, Yin (2011) did say this deductive approach to a qualitative study aids the researcher by reducing "uncertainty in doing your initial fieldwork because you would have started with relative concepts rather than waiting for them to emerge" (p. 95). Yin (2011) supported the use of a triangulation of qualitative data as well, adding that such a convergence will substantially aid in the credibility and trustworthiness of the research. Yin (2011) said the risk in approaching the qualitative study in this way is the potential of losing unique information gathered about real-world events.

The mixed methods' explanatory design utilized in this study met those two criteria, as the study's research questions respectively called for a quantitative examination of the available data and a qualitative look at the attitudes and behaviors of the students tied to the data. The quantitative side of the study considered categorical data from the MBTI in relation to the institutional data concerning each student's academic experience in college (Institutional Data, 2013). The quantitative analysis formed the study's first phase as it sought to establish whether a relationship between

particular personality types of the students and their retention and academic success in college (Creswell & Clark, 2011).

The qualitative analysis, through the data generated by representative focus groups of students, initially detailed the experiences and responses of the students during their time in college and, specifically, in an honors program. Ultimately, the qualitative analysis provided the views and perspectives of the honors students. The data generated from the focus group interviews, with the psychosocial development theories in support, were designed to provide a context for the quantitative results (Yin, 2011).

Population and Sample

The students to be considered in the quantitative portion of the study were from the total population of first-time, full-time students who enrolled in the honors program during academic years 2007-2012. Eligibility to enroll in the honors program is contingent on a student having an ACT composite score of 25 or above (automatic eligibility), an ACT composite score of 23 or 24 if also scoring an ACT Reading score of 28 or above and being eligible to enroll in the Composition I course required of all freshmen, or under special circumstances, obtaining the special permission of the program director (Course Catalog, 2012). The research sample consisted of students eligible under each of the criteria. In addition, in order to focus on the problems outlined in Chapter One concerning student development of the traditional-age college honors students, only students ages 18-24 at the time of their enrollment were included in the research study's sample.

In keeping with Lichtman's (2012) contention that the primary purpose of qualitative research is to discover a deeper understanding of the human experience

through research that is holistic and inductive, the study gathered information regarding honors students' attitudes and behaviors as well as their experiences in college as honors students with certain at-risk characteristics. The use of focus groups for this study aligns with Krueger and Casey's (2014) suggestion that one reason to use focus groups in research is "to uncover factors that influence opinions, behavior, or motivation. Focus groups can provide insight into complicated topics when opinions are conditional or when the area of concern relates to multifaceted behavior or motivation" (p. 24). Krueger and Casey (2014) also suggested the use of focus groups when the quantitative data would benefit from having a greater sense of context. Given the use of the MBTI and its purpose of exposing the multifaceted personality makeup of individuals, it was initially thought that the information drawn from focus groups of honors students would provide substantial support to any statistical correlation found in the quantitative portion of the study.

Instrumentation

Quantitative. The quantitative portion of the study included all honors students in the study sample who had completed the MBTI instrument prior to this study. Upon entering the honors program, each student is required to take the MBTI as part of the program's first honors core course. The MBTI is administered online, with results provided to the program director via the administration website and then presented to the student during a one-on-one interview with the director at mid-semester of the student's first fall semester in college. Results of the MBTI are filed for reference by the director and are part of the student's record in the program. See Appendix A for a sample of the

MBTI results profile. Thus, results for the years 2007-2012 were readily available for use in the study.

The validity of the MBTI has been demonstrated by a multitude of researchers seeking to apply the MBTI as representative of Jung's typology-specific population groups, activities, and environments, according to McCaulley (2000). In particular, she pointed out that career counselors have found that individuals with Sensing (S) preferences have interests in careers involving great detail, and those with an Intuition (N) preference like careers that require evoking the symbolic or seeing things from the bigger picture (N). Those with Thinking (T) or Feeling (F) preferences have interests in "working with materials and ideas using impersonal analysis (T) or with people and ideas using personal understanding (F)" (McCaulley, 2000, p. 153).

McCaulley (2000) cautioned users of the MBTI, however, that the instrument is not infallible nor does it assess for psychopathology. She explained the MBTI

> does not assess skills. Type theory and the MBTI can, however, be used by counselor[sic] in establishing conceptual frameworks of (a) possible strengths and weaknesses, (b) typical and atypical behaviors, (c) effects of environmental pressures, and (d) developmental pathways. (McCaulley, 2000, p. 159-160)

In addition, McCaulley (2000) warned the MBTI has its limitation due to its self-reporting methodology, adding the analyst or researcher should consider type theory only alongside other data.

Qualitative. In the qualitative portion of the study, two sets of focus groups were used. In the first set, three groups respectively represented one of the three 'academic

success' categories based on the students' GPA success at the institution. These three categories were noted as: 1) Top Performers, or honors students who completed their associate degrees with the Specialization in Honors and with a cumulative GPA of 3.5 or higher within three years of admission into the institution; 2) Moderate Performers, or honors students who completed their associate degrees but who did not complete the requirements for the Specialization in Honors and/or who had a cumulative GPA between 2.5 and 3.49 within three years of their admission into the institution, and 3) Poor Performers, or honors students who either did not complete their associate degree within three years of their admission into the institution, who earned a GPA of less than 2.5, and/or who are not currently enrolled. This design structure is similar to that used by Horton et al. (2009).

The second set of focus groups consisted of six groups, one each for students who have demonstrated an MBTI type preference in either sensing, intuition, thinking, feeling, judging or perceiving. This categorization of MBTI types is in accordance with the findings of King and Howard-Hamilton (2000) and McCaulley (2000). Within each of the six groups, participants' inclination toward extroversion or introversion were noted and considered in the analysis.

Using this two forked, single-category design allowed the researcher to analyze similar types of students from, first, the academic success viewpoint and then by similar MBTI typology (Krueger & Casey, 2014). Participating students could only be in one focus group. While forming groups consisting of different students from different academic success categories or from varying MBTI typologies was considered, Krueger and Casey (2014) encouraged researchers to make the groups as homogeneous as

possible when centered on the variable being considered. They stressed that mixing the participants would make it more difficult for the researcher to not only analyze the resulting data but that individual participants are less likely to speak out when differences were apparent in the group's interaction.

Potential participants in the focus groups were invited to attend a focus group session that, unknown to them, was centered upon either their academic success or their MBTI typology preference. After sorting the student population by academic success category and MBTI typology preference, focus group participants were randomly selected, and invitations sent via email and standard United States postal mail. Additional focus groups were needed to better ensure 'saturation' or the point at which the researcher has noted the group member's responses have reached their range and additional information is unlikely, as defined by Krueger and Casey (2014).

Data Collection

In order to begin gathering the data necessary to complete the study, the researcher first sought permission from Lindenwood University's Institutional Review Board (IRB) as well as from the IRB of the institution offering the honors program whose students were to be studied. Likewise, permission was sought from the institution offering the program for access to the student data. In the study's qualitative research, the focus group interview strategy and questions were submitted not only to the Lindenwood University Institutional Review Board (IRB) but also to the IRB of the study's participating institution, as the study included current students at the institution and because they met the qualification of a vulnerable population under the Common Rule portion of the Federal Policy for the Protection of Human Subjects (2005). In these

requests, the researcher submitted the data collection strategy for this study's quantitative research as well as its qualitative research. A description of the strategy follows.

For the quantitative portion of the study, the researcher used the MBTI performance methodology followed by researchers Oswick and Barber (1998) as well as that of Horton et al. (2009). In a similar way, honors student MBTI results were paired with the students' academic data as provided by the institution's Office of Institutional Research utilizing the campus' student information management system, SCT Banner. The campus Director of the Office of Institutional Research gathered the data, sorted the data given the requested/required variables, and then provided an Excel spreadsheet with the sorted results without student identification to her immediate supervisor who then provided the data to the researcher. Data required and provided included retention status from students' first fall semester to their second fall semester, graduation or transfer data, and grade point average upon leaving the institution. Demographic data noted the gender makeup of the population as well as confirming age and eligibility for the honors program.

In the qualitative research portion of the study, following recruitment of participants and the receipt of the participating students' signed consent forms (see Appendix B), participants were asked to gather in a place convenient in location for their particular focus group. The researcher utilized a local restaurant with a separate eating area in which to hold the interviews. The researcher and those volunteering to conduct the focus group interviews greeted the student-participants and provided them with an overview of the process.

A written plan for the interviews along with a written protocol for those conducting the focus group interviews (see Appendix C) were established to ensure a logical process of questioning (see Appendix D), consistency in approach from session to session, and clear questioning while in session. Adequate resources were also planned well in advance. These included unencumbering technology, comfortable environment, quiet surroundings, and incentives such as refreshments. A field-test of the questions, format, and process of the focus group interviews were held prior to the actual sessions. An analysis of the field-test session by the researcher and participants provided information for improving the entire process (Krueger & Casey, 2014).

Transcripts of the focus group discussions were made using audio recording technologies. The recordings were transcribed by the researcher. In order to reduce any bias on behalf of the questioner or the student participants, questions were posed by individuals not previously a part of the students' college classroom experience, including the institution's director of student life and development, associate professor of communications, and assistant professor of psychology, and the honors program's current lecturer in honors.

Bias and limitations. The researcher has served as the director of the honors program and did so over the course of the timeframe during which the student participants entered the program and were administered the MBTI. The researcher also has a reaffirmed MBTI type of INFP, with a clearly dominant Intuition (I) preference and an auxiliary preference of Feeling (F).

Limitations of the study include the following items:

1. The study examined honors students at a two-year, open admission campus,

and its results cannot be generalized to the larger honors student population.

2. Because of the population size, though large enough in its whole to provide a fairly significant analysis (Bluman, 2011) in its correlation of MBTI types and performance category, it was impossible to statistically analyze the population by each of the 16 MBTI personality types. This lessened the reliability of using the MBTI as a diagnostic tool (Bluman, 2011).

3. The study failed to consider the specific differences in intellectual and emotional aptitudes present in the honors student population studied.

4. Honors students face the same known obstacles as non-honors college students in terms of being the first in their family to attend college (i.e, first-generation student), poverty, physical or learning disabilities, and general emotional upheavals of life. Research has shown that these obstacles can affect retention and the success of any college student, and the study's student population would be no different (Tinto, 2012). Thus, this study was limited in being able to isolate those variables from the data, and any analysis or interpretation of the study's data must include these underlying and possibly confounding variables in the overall results.

Data Analysis

Quantitative. The researcher analyzed the quantitative data, whenever possible, using an Excel spreadsheet and the StatPlus statistical analysis add-in. Analyses included a descriptive analysis of demographic data as well as the use of a one-way ANOVA.

A descriptive analysis for demographic attributes of age and gender was conducted for the quantitative study's population and for the qualitative study's smaller subpopulation. Descriptive analyses for each of the 16 MBTI personality types were

made, establishing a general view of the quantitative study's overall student population as well as the population by age and gender (Creswell & Clark, 2011).

A one-way ANOVA was used to measure whether any significant differences existed between the four MBTI Type Preferences (Extroversion-Introversion, Sensing-Intuition, Thinking-Feeling, and Judging-Perceiving) and student retention in college. Likewise, the fourth step was a one-way ANOVA to measure whether any significant differences existed between the four MBTI Type Preferences and the students' categorized performance in college (e.g., Top Performer, Moderate Performer, and Poor Performer). The analyses sought to establish a connection between traditional-age college honors student's personality type and his or her success in college, as determined by retention and performance (Bluman, 2010; Creswell & Clark, 2011). These analyses answered the quantitative research questions using the 0.05 level as the study's established minimum confidence level for rejecting each null hypothesis.

Qualitative. The data analysis for the qualitative portion of the study drew from the data generated by the focus groups whose description was provided earlier. According to Krueger and Casey (2014), a quality analysis of data drawn from focus groups is "systematic, sequential, verifiable, and continuous" (p. 128). To meet those criteria, the analysis provided clear evidence of any and all interpretations of the data while making such interpretations open to anyone. Evidence was based on a sufficient amount of data provided by the focus groups. Analysis of the data initially used what Krueger and Casey (2014) call the "long-table approach" (p. 132), which simply has the researcher-interpreter dividing the data into categories based upon similarities of responses or intent of the information provided; however, a more detailed "Five-Phased

Cycle" approach suggested by Yin (2011) was employed by first compiling the data, then dissembling them, followed by reassembling and arraying, interpreting, and, finally, concluding (p. 177). Frequency, specificity, emotion, and extensiveness of the responses were noted in a summation of the evidence. Interpretation and recommendations were based on the categorized evidence in relation to the MBTI data and the psychosocial student development theories at the foundation of the entire study. (Creswell & Clark, 2011; Krueger & Casey, 2014; Silverman, 2013; Yin, 2011).

Summary

This study examined the personality type differences between traditional-age college honors students who were retained and those who were not retained over the course of their experience at a two-year, open admission college. Likewise, the study considered the differences between the honors students and their performance at the institution in terms of their final cumulative GPA with the institution. In conducting the study, the researcher hoped to observe that a strong correlation could be demonstrated through the quantitative data in order to utilize the MBTI personality type data to predict honors students' success and, more importantly, possible at-risk attitudes and behaviors in order to better ensure their success in college.

Qualitative data drawn from focus group discussions with select students from the total honors student population were anticipated to further explain the quantitative data and the significance of the findings. Through this research, it was anticipated that additional knowledge about this group of honors students and their unique attitudes, aptitudes and behaviors would be of such significance that it could be used by college academic leaders elsewhere to better their understanding of honors students at their

institution and to better anticipate the students' needs in making their college experience a successful one.

Chapter Four: Analysis of Data

This study has focused on how academic leaders might use psychosocial student development theory and personality identity profiling to better support college honors students, whose attitudes and behaviors unique to them as honors-level students could potentially put them at risk of losing future educational and career opportunities. To consider whether this strategy of using student development theory and personality typology would be effective, this mixed methods study addressed two quantitative questions with null hypotheses and two research questions in the qualitative portion:

1. What difference, if any, exists between MBTI personality typology and retention rates in college?

H_0: There is no significant difference between the college honors student's identified MBTI personality type and his or her retention in college at the 0.05 level.

H_1: There is a significant difference between the college honors student's identified MBTI personality type and his or her retention in college at the 0.05 level.

2. What difference, if any, exists between MBTI personality typology and success in college, as determined by a 3.5 GPA or higher attainment level at the completion of a student's degree program, upon transfer, or upon withdrawal?

H_0: There is no significant difference between the college honors student's identified MBTI personality type and his or her success in college at the 0.05 level.

H_1: There is a significant difference between the college honors student's identified MBTI personality type and his or her success in college at the 0.05 level.

3. From a sample of students who were retained/not retained in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors and/or attitudes associated with honors students did the students report experiencing?

4. From a sample of students who succeeded/did not succeed in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors/attitudes associated with honors students did the students report experiencing?

These hypotheses and research questions were generated by a close review of the literature concerning psychosocial student development theory, college honors students, and personality typology research (Astin, 1999; Chickering, 1969; McCaulley, 2000; Scager et al., 2011; Silverman, 2013). Of particular importance to this study were the studies by Chickering (1969) and Astin (1999), who both encouraged the use of student development theory to understand the unique campus-wide environmental needs of the gifted student and to assess the learning that comes through that environment.

To review briefly, Chickering (1969) contended a traditional-age college student moves through a complex system of seven vectors that, if shaped positively, promotes the student's personal growth as well as his or her potential to benefit from the surrounding academic environment. The first of these seven vectors has the student developing competence in intellectual, physical and manual skills, and interpersonal skills

(Chickering, 1969). The second vector concerns his or her managing emotions, with the third one focusing on how the student evolves into self-sufficiency and responsibility (Chickering, 1969). In the fourth vector, the student develops mature interpersonal relationships, and in the fifth, he or she establishes a personal identity and then, in the sixth, the individual develops purpose in vocational and personal interests, and interpersonal and family commitments (Chickering & Reisser, 1993). Finally, in vector seven, the student develops integrity demonstrated by the clarification of core values and beliefs (Chickering & Reisser, 1993). Chickering (1969) explained student success in reaching these vectors helped to determine the quality of their experience in the college environment and not only impacted personal growth but also institutional outcomes such as retention and graduation rates.

Astin's (1999) theory of student involvement "refers to the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518). Astin (1999) defined "a highly involved student as one who, for example, devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students" (p. 518). Astin's (1999) student involvement theory provides the advantage over traditional pedagogical approaches in that, "it directs attention away from subject matter and technique and toward the motivation and behavior of the student" (p. 529).

Equally important to the conceptual framework of this study were the theories and findings of researchers in personality identity theory, such as Myers and Briggs (2003) and McCaulley (2000). The Myers-Briggs Type Indicator (MBTI) provides the means of understanding differences in student learning styles, academic attitudes, achievement and

motivation (McCaulley, 2000). As noted in the review of literature, the tool is being used in a multitude of ways to assess an individual's temperament, attitude, inclination, and natural strengths and weaknesses in particular activities of life, vocation, and education.

Again, to briefly review, the MBTI provides an assessment of an individual's four preferences self-reported by the individual via answers to a series of 93 questions. The selected preferences and their relative intensity are one side of four pairs of opposite preferences called dichotomies. The dichotomies, separated here by their categorical function within the overall personality trait, are Sensing (S) or Intuition (N), which concern how a person takes in information; Thinking (T) or Feeling (F), which concern how an individual makes decisions; Judging (J) or Perceiving (P), which concern how a person deals with the outer world; and the environmental typology pair of Extroversion (E) or Introversion (I), which concern where an individual focuses his or her attention (Schaubhut et al., 2009). According to Jung's theory, "the tensions and striving for balance between opposites create the dynamic interplay that leads to growth [in the individual]" (McCaulley, 2000, p. 115).

These theories in psychosocial student development and in personality typology provided an important backdrop to the findings from this mixed methods study. As recommended by Silverman (2013), the research began "from a theoretical perspective or model" and chose methods and data that would give "structure and meaning from within that perspective" (p. 157). The quantitative data, then, was used to determine if there was a significant difference between the study sample's dominant typologies as determined by an MBTI assessment during each student's first semester in college and the sample's retention/attrition in college and final grade point average (GPA) with the institution.

The qualitative data generated by 11 focus group interview sessions offered information about how individuals from the sample, distinguished by their success, or performance, in college and by their dominant MBTI personality typology, responded to a series of 13 questions. As suggested by Krueger and Casey (2014), the researcher posed the questions “to uncover factors that influence opinions, behavior, or motivation," with the group participants' responses providing "insight into complicated topics when opinions are conditional or when the area of concern relates to multifaceted behavior or motivation” (p. 24). The questions were designed to elicit responses that would be supportive of the findings of the quantitative data and/or provide clearly distinguishable emergent themes/topics about the students' attitudes and behaviors.

Demographic Analysis

Quantitative. The students considered in the quantitative portion of the study were from the total population of first-time, full-time students, of the traditional college ages between 18 and 24 (Snyder & Dillow, 2011), who were eligible for and enrolled in an honors program during academic years 2007-2012 at a small public, two-year college in the Midwest. The two quantitative research questions sought to determine if a significant difference existed between college success and students' dominant or most preferred MBTI typology. Individually, the questions focused, first, on this population's retention in college and, secondly, on their GPA. For the purpose of this study, retention is defined as a student who attained their personal and/or academic goals upon exiting the college while a dropout is a student who entered the institution intending to graduate, and, due to some obstacle or hindrance that has blunted that intention, left school and did not return for an extended period of time (Tinto, 1993).

In brief, the sample consisted of 244 honors students, 104 males and 140 females. Of the 244, 142 or 58.1% graduated or had been retained, per the study's definition, with an average of 2.2 years to graduation. The sample's final average GPA upon departure of the institution, whether by graduation or upon dropping out, was 3.33.

Among the sample's dominant MBTI typologies (i.e., the eight possible typologies assessed among the four dichotomies for each individual student), Perceiving (168), Intuition (151) and Feeling (145) were the top three represented. Judging (76) was the typology least represented. The percentage of students with the highest graduation/retention rate were in the Sensing (62.4%), Feeling (61.4%) and Judging (60.5%) typologies, the only typologies above the 60% level. Those with a Thinking typology (53.5%) had the lowest rate of graduation or retention among the eight typologies. In terms of the students' final GPA, those with a Judging (3.3), Introversion (3.15) and Thinking (3.12) typology had the highest GPA within the sample. Perceivers (2.98) and Extraverts (2.99) had the lowest GPAs.

In order to consider whether a significant difference existed between a student's personality typology and his or her success in college, it was necessary to utilize each student's strongest or most preferred typology, the dominant typology (McCaulley, 2000), one of the four that make up the MBTI assessed composite typology. Among the eight possible typologies represented in the population, Introversion (54), Perceiving (48) and Intuition (37) had the highest number of students, while only seven students had Sensing as their dominant typology. There were more men with Perceiving (26) as their dominant typology than any other type; likewise, there were more women with an Introversion typology (33) than any of the other seven typologies.

The highest percentage of those within each dominant typology who graduated or were retained came from the typologies of Perceiving (66.7%), Judging (66.7%), and Introversion (64.8%). The lowest percentage was found in the Extroversion (42.4%) and Sensing (42.9%) typologies. Finally, the dominant typologies with students having the highest final GPAs upon leaving the institution were Introversion (3.3), Judging (3.27) and Intuition (3.12). The typologies with the lowest were Extroversion (2.78) and Sensing (2.85).

A comprehensive demographic analysis of the study's population, including a breakdown by MBTI typology, is shown in Table 1.

Table 1

Analysis of Population

	Count	Male	Female	Percent Graduated	Ave years to graduate	Final GPA
All students						
	244	144	140	142	2.2	3.33
By all assessed typologies						
Extroverts	115	49	66	67	2.31	2.99
Introverts	129	65	74	75	2.12	3.15
Sensing	93	40	53	58	2.2	3.07
Intuition	151	64	87	84	2.2	3.08
Thinking	99	66	33	53	2.1	3.12
Feeling	145	38	107	89	2.26	3.05
Judging	76	24	52	46	2.21	3.3
Perceiving	168	80	88	96	2.2	2.98
By Dominant Typology						
Extroverts	33	19	14	14	2.18	2.78
Introverts	54	21	33	35	2.02	3.3
Sensing	7	2	5	3	2.59	2.85
Intuition	37	17	20	21	2.34	3.12
Thinking	18	11	7	8	1.94	3.02
Feeling	29	4	25	17	2.23	3
Judging	18	4	14	12	2.3	3.27
Perceiving	48	26	22	32	2.3	3.02

Note: Data from student Myers-Briggs Type Indicator Instrument® Form M reports, Academic Years 2007-2012.

As will be discussed in the data analysis section for the quantitative research questions, the researcher also utilized the MBTI data to determine each student's second strongest typology, or as McCaulley (2000) called it, the individual's auxiliary typology. This was done in order to consider the difference between the success data for the population and the combination of dominant and auxiliary typologies in comparison to the difference between the success data and the dominant typology only.

By adding the second strongest, or auxiliary typology, 24 combinations (e.g., Extroversion-Sensing or Sensing-Extroversion, etc.) were possible, and their demographic data were considered (see Table 2). The three dominant-auxiliary typology combinations representing the most students within the population were the N-P/P-N (31), E-P/P-E (26), and F-P/P-F (18) combinations. Those with the fewest number of students were the N-J/J-N (1), the S-F/F-S (2), and T-J/J-T (2). Among women, the N-P/P-N (15), I-F/F-I (14), and F-P/P-F (14) combinations had the most students. For men, the N-P/P-N (16) combination also had the highest number of students represented with E-P/P-E (15) second. The fewest numbers (1) were in several combinations for both the men and women.

Among the entire population, the percentage of students who graduated or who were retained ranged from 100% downward to 33.3%; however, the count in many of the combinations was so few that this analysis did not provide a good representation of each combination. It should be noted that graduation/retention rates were the highest among the F-P/P-F (77.8%), I-J/J-I (76.9), and T-P/P-T (75.0) combinations. The lowest percentage rates were the dominant-auxiliary typology combinations of E-N/N-E (35.7%) and NF/F-N (36.4%). Finally, the combinations of N-J/J-N (4.00), T-J/J-T (3.60), I-N/N-I (3.44), and T-P/P-T (3.41) had the highest average final GPA of the 24 combinations, although the N-J/J-N combination only had one student represented. The lowest average GPAs were in the E-T/T-E (1.96) and E-S/S-E (2.61) typology combinations.

Table 2

Population Sorted by Students' Dominant-Auxiliary Typology Combinations

	Count	Male	Female	% Grad/Ret	Ave years to graduate	Final GPA
Dominant-Auxiliary Typology Combinations						
E-S/S-E	5	3	2	40.0	2.63	2.61
E-N/N-E	14	7	7	35.7	2.59	2.93
E-T/T-E	3	1	2	33.3	2.41	1.96
E-F/F-E	9	2	7	55.5	2.42	2.98
E-J/J-E	5	1	4	40.0	2.11	2.88
E-P/P-E	26	15	11	57.7	2.57	2.87
I-S/S-I	7	1	6	57.1	2.19	3.24
I-N/N-I	12	6	6	66.7	2.15	3.44
I-T/T-I	15	12	3	60.0	1.76	3.22
I-F/F-I	15	1	14	53.3	2.21	3.22
I-J/J-I	13	5	8	76.9	2.09	3.26
I-P/P-I	14	3	11	50.0	1.75	3.03
S-T/T-S	4	1	3	25.0	1.98	2.94
S-F/F-S	2	1	1	50.0	1.82	2.97
S-J/J-S	9	1	8	66.7	2.21	3.19
S-P/P-S	4	2	2	75.0	2.25	2.86
N-T/T-N	4	2	2	50.0	2.9	3.27
N-F/F-N	11	5	6	36.4	2.03	2.9
N-J/J-N	1	0	1	100.0	1.44	4
N-P/P-N	31	16	15	61.3	2.18	3.05
T-J/J-T	2	2	0	50.0	1.5	3.6
T-P/P-T	12	11	1	75.0	1.93	3.41
F-J/J-F	8	1	7	62.5	2.64	3.35
F-P/P-F	18	4	14	77.8	2.26	2.9

Note: Data from student Myers-Briggs Type Indicator Instrument® Form M reports, Academic Years 2007-2012.

Qualitative. Sixty-eight former members of the honors program attended one of the 11 focus group interviews held, 25 for the performance group interviews and 43 for the six typology groups. Although nine sessions were planned in total, two additional sessions were needed to ensure better representation in two of the three performance groups and to increase saturation of responses in those two areas (Krueger & Casey, 2014). Five interview sessions were tied to Research Question 3, the Top, Moderate and Poor Performance groupings, with the remaining six interviews focused on Research Question 4 and the six non-environmental MBTI typologies (excludes Extroversion and Introversion) of Sensing, Intuition, Thinking, Feeling, Judging and Perceiving.

For the performance group sessions, potential participants were identified and categorized by their student data and then invited to attend the focus group interviews. Nine of the participants were Top Performers, or honors students who completed their associate degrees with the Specialization in Honors and with a cumulative GPA of 3.5 or higher within three years of admission. Ten participants were Moderate Performers, defined as those who completed their associate degrees but who did not complete the requirements for the Specialization in Honors and/or who had a cumulative GPA between 2.5 and 3.49 within three years of their admission into the institution. Six participants were Poor Performers, i.e., or honors students who did not complete their associate degree within three years of their admission into the institution, who earned a GPA of less than 2.5, and/or who were not enrolled at the time of the interview. Of the 25 participants, 18 or 72% were women. All had begun their college career as traditional-age students, within the range of 18-24. Sixteen of the 25 (64%) had eventually graduated with an associate degree or bachelor degree since leaving the institution;

among the 16, three were in graduate school at the time of the interview and one had earned his master's degree. Obviously, nine of the 25 (36%) had not completed a degree. Four were still enrolled in college but at a different institution, with the other five not enrolled.

Attendance at the focus group interviews focused on the six non-environmental MBTI typologies included seven participants with a dominant Sensing typology, seven in the Intuition group, eight with a dominant Thinking typology, six Feeling participants, four Judging, and 11 with Perceiving as their dominant typology. Of the 43 total participants, 28 or 65% were women. All started their college education when they were between the ages of 18 and 24. After leaving the institution, 32 of the 43 (74%) had graduated with an associate degree or bachelor degree. Of that 32, 12 or 37.5% were in graduate school at the time of the interview or had earned their master's degree. Among the 11 who had yet to earn a degree, six were enrolled at a different institution and five were not enrolled in any college program.

Data Analysis

Quantitative. The researcher first analyzed the data for Research Question 1 (*What difference, if any, exists between MBTI personality typology and retention rates in college?*) by conducting a descriptive analysis of the graduation/retention data for each of the 244 honors program students in the population when paired with the student's dominant MBTI typology, as shown previously in Table 1.

The next step in analysis was to compare the average graduation/retention rate when sorted according to the eight possible dominant MBTI typologies represented within the sample. Because the MBTI examines equality of sample means for a single

quantitative outcome variable and a categorical explanatory variable with more than two levels (Seltman, 2013), a one-way ANOVA was selected as the appropriate statistical method for analyzing this data (Bluman, 2011).

To determine if one or more of the average retention rates for each of the MBTI typologies were significantly different from one another, hypothesis testing was conducted using an ANOVA. Using the procedures described in Bluman (2011), the calculated test values were used to evaluate the H_0 and H_1. The H_0 stated there is no significant difference between the average retention rates for each identified MBTI personality type at the $\alpha = 0.05$ level. The H_1 stated there is a significant difference between the college honors student's identified MBTI personality type and his or her retention in college at the $\alpha = 0.05$ level.

The *p* value, 0.29, was greater than the α level, 0.05, and the *F* statistic, 1.22, was less than *F* critical value, 2.05. Therefore, the analysis failed to reject the null hypothesis. These data failed to support the H_1 that a significant difference existed between any one set of graduation/retention rate data and the corresponding honors students' dominant MBTI personality type.

Next, the researcher analyzed the data for Research Question 2 (*What difference, if any, exists between MBTI personality typology and success in college, as determined by a 3.5 GPA or higher attainment level at the completion of a student's degree program, upon transfer, or upon withdrawal?*) by first conducting a descriptive analysis of the GPA data for each of the 244 honors program students in the population when paired with the student's dominant MBTI typology, as previously shown in Table 1.

The next step in analysis was to compare the students' average GPA when sorted according to the eight possible dominant MBTI typologies represented within the population. Because the MBTI examines equality of sample means for a single quantitative outcome variable and a categorical explanatory variable with more than two levels (Seltman, 2013), a one-way ANOVA was selected as the appropriate statistical method for analyzing this data.

To determine if the observed difference between the average GPA for each of the MBTI typologies were significant, hypothesis testing was conducted. Using the procedures described in Bluman (2011), the calculated test values were used to evaluate the H_0 and H_1. The H_0 stated there is no significant difference between the average GPA for each identified MBTI personality type at the $\alpha = 0.05$ level. The H_1 stated there is a significant difference between the college honors student's identified MBTI personality type and his or her GPA in college at the $\alpha = 0.05$ level.

The one-way ANOVA's analysis reported the p value, 0.19, was greater than α level of 0.05, and the F statistic, 1.43, was less than the F critical value, 2.05. Therefore, the analysis failed to reject the null hypothesis. These data failed to support the alternative hypothesis that a significant difference existed between any one set of GPA data and the corresponding honors students' dominant MBTI personality type.

Using the dominant and auxiliary typologies. As noted in the review of literature, McCaulley (2000) said an individual's personality requires balance, and to achieve that balance, the auxiliary function in the form of a competing/complementing typology must be developed. The greater the development, the greater the individual will deal more comfortably with the external and internal events (McCaulley, 2000). This

level of development includes having the skills to process information and make decisions, two skills generally believed to be important to the success of college students (McCaulley, 2000).

Because of this information and the applicability of it to this study, the researcher, using the same variables and structure of the original research questions, decided to take the additional step in the quantitative portion of the study to consider the difference, if any, between the honors program students' retention/graduation data and their respective dominant-auxiliary MBTI typology combinations. Likewise, the researcher considered the difference, if any, between the honors program students' GPA data and their respective dominant-auxiliary MBTI typology combinations.

This next phase of the analysis compared the average graduation/retention rate when sorted according to the 21 possible dominant-auxiliary MBTI typology combinations represented within the population, as shown in Table 2. Because it examines equality of sample means for a single quantitative outcome variable and a categorical explanatory variable with more than two levels (Seltman, 2013), the one-way ANOVA was selected as the appropriate statistical method for analyzing this data.

To answer the Research Question 1 with the extended data, and thus to determine if the observed variances in average graduation/retention rate data for each of the MBTI typology combinations were significant, hypothesis testing was conducted. Using the procedures described in Bluman (2011), the calculated test values were used to evaluate the similarly amended H_0 and H_1. The null hypothesis stated a significant difference did not exist between the college honors student’s identified dominant-auxiliary MBTI personality typology combination and his or her retention in college at the 0.05 level.

The H_1 stated a significant difference existed between the college honors student's identified dominant-auxiliary MBTI personality typology combination and his or her retention in college at the 0.05 probability Type 1 error level or α.

The analysis for this revised data set reported the *p* value, 0.84, which was greater than α level of 0.05, and the *F* statistic, 0.71, was less than *F* critical value, 1.58; therefore, the analysis again failed to reject the null hypothesis using the extended data. These data also failed to support the alternate hypothesis that a significant difference existed between any one set of graduation/retention rate data and the corresponding honors students' dominant-auxiliary MBTI personality typology combination.

Next, the researcher analyzed the data for the amended Research Question 2 by first conducting a descriptive analysis of the GPA data for each of the 244 honors program students in the population when paired with the student's dominant-auxiliary MBTI typology combination, as shown in Table 2.

The analysis then compared the students' average GPA when sorted according to the 21 possible dominant-auxiliary MBTI typology combinations represented within the sample. Because it examines equality of sample means for a single quantitative outcome variable and a categorical explanatory variable with more than two levels (Seltman, 2013), a one-way ANOVA was selected as the appropriate statistical method for analyzing this data.

To determine if the observed variances in average GPA data for each of the dominant-auxiliary MBTI typology combinations were significant, hypothesis testing was conducted. Using the procedures described in Bluman (2011), the calculated test values were used to evaluate the H_0 and H_1. The null hypothesis stated no significant

difference existed between the college honors student's identified dominant-auxiliary MBTI personality typology combination and his or her success in college. The alternate hypothesis stated a significant difference did exist between the college honors student's identified dominant-auxiliary MBTI personality typology combination and his or her success in college.

The one-way ANOVA's analysis reported the *p* value, 0.29, was greater than α level of 0.05, and the *F* statistic, 1.16, was less than *F* critical value, 1.58. Therefore, the analysis failed to reject the null hypothesis. These data also failed to support the alternate hypothesis that a significant difference existed between any one set of GPA data and the corresponding honors students' dominant-auxiliary MBTI personality typology combination.

Qualitative. According to Krueger and Casey (2014), a quality analysis of data drawn from focus groups is "systematic, sequential, verifiable, and continuous" (p. 128). Analysis of the data initially used what Krueger and Casey (2014) call the "long-table approach" (p. 132), which simply has the researcher-interpreter dividing the data into categories based upon similarities of responses or intent of the information provided. Later, a more detailed "Five-Phased Cycle" approach suggested by Yin (2011) was employed by first compiling the data, dissembling them, and then reassembling and arraying, interpreting, and, finally, concluding (p. 177).

Focus group interview question #1. *When you first stepped foot on campus, would you say you were prepared for college? Why or why not?*

Performance focus groups. Interview participants in each of the three Performance categories (Top, Moderate, and Poor Performers) typically felt prepared

academically for their first semester in college, indicating that high school (or homeschool in a few cases) had challenged them to a point of feeling prepared and reducing the anxiety associated with the content of their studies and whether they "would cut it or not." Top Performers consistently discussed the merits of their advanced placement courses, dual credit, dual enrollment, and/or homeschool experiences as being key to their preparedness.

Responses from the Moderate and Poor Performers varied more widely. Most felt they were prepared to enter college but realized early in their first semester they were not; however, as will be explained, their anxieties were typically generated by something other than the challenges of their course subjects. Three of the participants in the Moderate and Poor Performer categories felt they were poorly prepared for college-level studies and blamed their high school preparation, whether in the form of the school itself or merely the quality of their own work or lack thereof.

With a couple of exceptions among the Top Performers, all of the participants in the Performance interviews mentioned a lack of preparation on their part during high school. Their noted deficits centered around four areas: misdirected expectations, lack of study skills, an inability to manage time, and a failure or near-failure in meeting the challenges of the college environment. One Poor Performer put her experience this way:

> But no one prepares you for writing a paper in three days and then writing another one after that and then another one after that. No one prepares you for the huge amount of the reading that you have to do. So when I stepped on campus, I thought, yeah, the [high] school prepared me for all of these things, but in reality,

> I had no way of knowing how to manage my time for reading and writing and all that. (page 3, Q1, para. 3)

A Moderate Performer said, "I don't think I was prepared for the time constraints, like getting to class, taking notes, that kind of stuff. I was prepared, like, I was prepared to understand it [the subject matter], but I didn't know how to organize my time" (page 22, Q1, para. 3). Another Moderate Performer focused on his lack of study skills: "For the tests I wasn't really [prepared] because in high school I would study for about 15-20 minutes before a test . . . and I would get A's and B's on them. I mean I did that on some tests in college and got away with it, but [for most] of them I actually had to study for hours" (page 42, Q1, para. 6).

The college environment itself was a challenge to some of the Top and Moderate Performers and most of the Poor Performers. The cause of the challenge varied from differences in course structure from high school, balancing time with a perception of greater freedom, and, for some, the personal challenge of meeting new people and establishing a new identity within the environment. A Top Performer explained his challenge with the environment, saying, "I think there was a duality because you're prepared for the studying but you're not really prepared . . . . It's not structured like high school. At first there was way too much freedom, so it was kind of hard to balance that. It took a lot of growing up that first year" (page 63, Q1, para. 4).

Another Top Performer realized the conflict between intellectual capability and using that capability in a different environment:

> I would say I felt prepared academically. I wasn't worried about that. Being from the area it was kind of hometown, yet the structure was totally different. So that

> took some getting used to, and also I had the mindset to just fly right through and get it done as fast as I could. So I think that changed some, too, to absorb a little more and slow down and enjoy it more. (page 63, Q1, para. 5)

Unrealistic expectations of oneself in light of one's experience in high school and in the midst of a new environment was a common mixture of elements among the Poor Performers, as attested by a young woman who said, "I was somewhat prepared but not because of high school. I didn't pay much attention. But when I first got here I started with seven classes because I thought it was going to be like high school. But it was way too much and overwhelming" (page 32, Q1, para. 2).

Dominant typology focus groups. Participants answered this question in three generalized categories of responses. The first response was a simple and generalized, "Yes, I was prepared, even though I didn't know what I faced." For instance, one respondent said, "[I] was sufficiently prepared because I came out of high school and was used to that mindset of coming in at a certain time and doing certain things" (page 3, Q1, para. 1). Another noted, "I was prepared because I was used to honors classes in high school" (page 3, Q1, para. 2), and another said, "I think I was prepared academically, but not really . . . . I just didn't know what to expect" (page 21, Q1, para. 2). Participants responding in this manner generally had dominant typologies of Sensing, Intuition, and Thinking.

On the other hand, participants with a dominant typology of Judging or Perceiving overwhelmingly saw themselves as unprepared for the challenge that faced them, and they answered with the second generalized response, "no." As one Perceiving respondent stated, "I'd say, at first, no. I had quite a bit of anxiety. I didn't know what to

expect at all. So I would say in the first few moments, I wasn't prepared. But it ended up not being a factor ultimately" (page 11, Q1, para. 1). Another student was blunt: "No, because I am obsessive and compulsive, and I'm not prepared for anything no matter how prepared I might actually be" (page 42, Q1, para. 2).

The third generalized response focused less on academic preparation and more on the question of whether they would fit into the college environment. A participant with a very strong Feeling preference and a nearly equal Introversion second preference said: "I'm not sure I would have felt prepared for any college but the atmosphere of this college was very small, relaxed and easy-going. So I felt like this was a good place for me to start" (page 13, Q1, para. 2).

Focus group interview question #2. *Did you know why you were coming to college when you first came? If so, how sure were you of that reason? If not, why did you come?*

***Performance focus groups*.** Participant answers to this question fell in three distinct areas: 1) *"Yes, I knew, and was very sure to fairly sure,"* 2) *"No, I didn't know,"* and 3) *"The decision was not authentically mine."* The analysis showed responses came from across the Top, Moderate, and Poor performance categories, but Top Performers had far more responses in the first area than the other two categories combined.

Among the responses to the first area was that of a Top Performer who said, "Yeah, I knew. I've always had a career goal, and I stayed on it. I'm still on it . . . speech pathology" (page 1, Q2, para. 1). A Moderate Performer stated, "My parents always encouraged me to, but I always wanted to go to college. Not this one, but I wanted to go to college. There was no other choice for me I just wanted to go to college" (page 43,

Q2, para. 7). Another Top Performer said, that while he knew he wanted the credentials, his educational experience generated another compelling reason to go:

> Initially, my reason was to go to college to get a degree and, like I said, get through it, get the degree, get the credential, whatever it might be. I was sure of that at first; I found quickly, though, that I was there to get an education. (page 64, Q2, para. 1)

The second response area ("No, I didn't know") was a view held by nearly a third of the participants as they looked back. Again, the response came from participants in each performance category; however, more Moderate and Poor Performers gave this response. While some did not know why they were going, they did know that they did not want to forego an opportunity with a narrow window of time and/or financial assistance. As one Moderate Performer said:

> When I went into it, I didn't know what I wanted to do, but I knew I needed to make the most of this opportunity while I had it. So, that was a big reason why I came, and part of that was to just discover who I wanted to be and knowing I could have the free college [education] to do that. (page 64, Q2, para. 5)

One Poor Performer said, "I think in my senior year in high school I developed the belief that I didn't really necessarily need college, that I could just read myself my whole way to knowledge or something" (page 3, Q2, para. 3). Another Poor Performer attacked the necessity of the required general education courses, saying, "I kind of feel like the general studies are another two years of high school. It's pretty pointless. I mean I like to learn some things, but other things I'm like why am I taking this?" (page 22, Q2,

para. 6). This same questioning of purpose will be heard again and in a quite forceful and prevalent way in the responses to Interview Questions 10 and 12.

The last area of response for Question 2 ("The decision was not authentically mine") was the most prevalent answer across all performance categories. Many of the participants said they made the decision because of their parents or family, because of societal expectations, or because they knew they would need a job of some kind. Parental and family expectations where mentioned often, including this response from a Moderate Performer, who has been in and out of the college classroom over the past five years but has yet to obtain any type of degree:

> Not going to college was never an option for me. My family never gave me the option. You know just going straight to work was never presented as a viable option. They're like, "You're going to wither in the gutter and die if you don't go to college." It's kind of a cruel way to put it, but I don't know why I'm going or what I'm doing. I just know I'm going. (page 43, Q2, para. 6)

One of the few Top Performers who had a response in this area said:

> Initially, when I came to college I came just because I had to, because my parents said I was. Otherwise they were going to kick me out of the house. But as I got started taking classes in college that changed as I got my own interests in my own degree. (page 3, Q2, para 2)

Most of the responses in this area came from Moderate or Poor Performers. A Poor Performer noted the expectations placed upon her and the failure of those expectations to lead her through college, saying "I had no plan of becoming anything in

particular, I just wanted to show that I could do it, so I went the first semester and said, there I did it. After that I quit for awhile" (page 22, Q2, para. 1).

Some participants, like this Poor Performer, said the family pressure has always been there:

> I was compelled to come by my entire family. That was pretty much the only question they had, "What are you going to do? What are you going to do? Why are you in college?" So now I'm taking a semester off because I don't want to lean on them for money. Their question is, "When are you going to go back? Why don't you take my money?" I'm like, no. (page 64, Q2, para. 7)

With the intellectual capacity very evident in many if not all of these former/continuing students, even those who are the first in their families to go to college are pressured to attend and to succeed, as supported by this Moderate Performer's response to this question: " For me, I'm first generation, so it's like [by] going to college I'm spotlighted. It sucked, so my family was all; yeah, lots of pressure" (page 65, Q2, para. 1).

Dominant typology focus groups. It seemed appropriate to use the same three areas of response as noted above in the Performance Focus Group sessions when considering the responses of participants by their dominant typology. The three response areas, 1) *"Yes, I knew, and was very sure to fairly sure;"* 2) *"No, I didn't know;"* and 3) *"The decision was not authentically mine;"* were also very prevalent in these focus group interviews. While the three areas of response could be seen across the typologies,

participants with certain dominant types responded more often in two of the response areas.

Participants with a dominant typology in Sensing, Intuition, Thinking, or Judging had more responses in the first area than any other typology group. Responses included phrases, such as "I was absolutely sure" (page 11, Q2, para. 1) from an Intuition participant, "I knew why I was going to college because I wanted a degree" (page 22, Q2, para. 3) from a Sensing student, "I always wanted to be a teacher, so I knew college was going to be there and quite a few years of it" (page 33, Q2, para. 1) from a participant with a Thinking preference, and from a Judging participant, "I knew I was coming to college. I wanted to be a lawyer, and I still want to be a lawyer . . . . I wasn't forced to" (page 76, Q2, para. 1).

Such surety could not be found in the responses by a majority of those in the Feeling or Perceiving typologies, however. One Feeling participant said:

> I didn't know what I wanted to do. It was just expected; graduate from high school and go to college. But, no, I didn't have any clear direction. I don't why I was doing this; it was just what I was supposed to do. (page 55, Q2, para. 1)

Likewise, a Perceiving participant with a nearly equally strong second preference of Feeling, noted her "wanderings" in higher education since that first semester:

> At first, and you asked why did I actually go, I don't know if it was the pressure I put on myself or my family's expectations. So, this is the next step, so you're going to do it . . . . And ironically, it's taken a heck of a lot of time to iron out the details. Oh, I'll figure out [during] the first couple

> of years what it is I want to do. What's it been, 10 years? (page 55, Q2, para. 4)

A number of participants with dominant typologies in Intuition, Feeling, and Perceiving wrestled with the third general response area, that of meeting external expectations of family and society to go or, in some cases, going in spite of expectations that they would NOT go. Some were very vocal about their struggles. One Intuition participant noted, "I don't think I knew the deeper reason of why. I knew that it's kind of something you have to do in society. I felt pressured to do it because it's like right out of high school what else do you do" (page 13, Q2, para. 1). A fellow participant with an Intuition preference and a nearly equal Feeling second preference, passionately explained the pressure to prove herself to her parents and her peers:

> I grew up in a household where my parents didn't want me to go to college. I had parents [who] told me that, "We don't want you going." It was partly because of financial reasons and partly because they didn't want me to change. And so I think at the time a lot of it was to show my parents I could but also I didn't want to be told I couldn't. But I also had very big dreams. And I knew what I wanted to do, and I had always wanted to do that since I was a little girl. And so I really wanted to have the opportunity to try to achieve my dreams. But I also felt social pressure to go to college. I feel sometimes any other decision other than to go college is looked down upon . . . . So I wanted to live up to other people's expectations of going to college. (page 14, Q2, paras. 1 & 3)

Focus group interview question #3. *During the course of your time on campus, did you ever consider quitting? What would have been your reasons?*

Performance focus groups. As might be anticipated, participants from the three performance groups (Top Performers, Moderate Performers and Poor Performers) responded to this question with a sliding scale of "never" to "yes, and I did quit;" however, nearly all respondents said they had, while enrolled and at one time or another, questioned whether they could and should go on with their college education.

Almost one-third of the Top Performers said they had never "really" considered quitting. When the thought appeared, it was primarily because of a single unexpected challenge. As one participant said in answer to the question, "I'd say no. Maybe for five minutes when I figured out I missed the drop deadline for a calculus class" (page 65, Q3, para. 1). During this question session, peer and institutional support were mentioned by the Top Performers as being among the keys to their success. One respondent noted her reliance on her peers in the honors program, saying, "We leaned on each other if we ever needed help with something" (page 65, Q3, para. 6). Another talked about the support she received from college personnel, stating:

> There is definitely a lot of support there. And I think that helped me and I'm sure others, as well, in avoiding quitting. There are a lot of people who wanted to direct you, who said, if you're interested in this try this. (page 65, Q3, para. 5)

For the Moderate Performers in particular, challenges led to questioning of purpose. "I never considered quitting," a participant said, "but I did question a lot what it was I was there for. And going through the motions of classes and challenging myself to think about what it was I wanted to do. . . questioning why I was there" (page 65, Q3,

para. 2). When challenges from outside of the classroom interfered, the desire to quit heightened, especially when the student's purpose for going to college was still forming. As one Moderate Performer bluntly said:

> I didn't want to be there. [I said] "I don't want to do this." When I first got there I was kind of exited about it. But, I don't know, a lot of things went wrong. My truck was in the shop for a week, and I just ended up having to pay two months worth of wages to get it out of the shop. I worked pretty close to 30 hours a week. I had 18 credit hours. I was so behind in all my classes I didn't want to do it anymore. I was so stressed out, I didn't care if I came to school or not. I didn't even know why I was here. (page 44, Q3, para. 4)

All of the Poor Performers interviewed had quit during their first time in college; a few had returned to school, including one woman who explained she "didn't like it."

> I didn't like the college experience. I didn't have a solid reason for going to college. And when I went I kept questioning, "Why am I here, why am I here?" And then that resulted in, "I don't need to be here." So I stopped going to college for while. (pages 3-4, Q3, para 1)

Finally, at least one respondent in each of the three performance groups noted his or her experience in the honors program kept them in school, even if it was for a short period of time. As one Top Performing graduate said,

> I thought about not doing my last semester, because I was doing two jobs. And I thought maybe I could take a break and pick up next fall. The reason I decided not to, well, two reasons actually. The first one was I

> didn't want to start a habit of putting things on pause. I want to start something and finish it all the way. And I didn't want to run the risk of not starting again in the fall. And the second reason was because a couple of courses, such as honors capstone, I wanted to see that through. And I knew that I wouldn't have the exact same experience elsewhere. I know there are other honors programs around the country, but I'm fond of this one. I wanted to see it through to the end. (page 4, Q3, para. 3)

Dominant typology focus groups. Among the students in the six non-environmental MBTI dominant typology groups, those in the Sensing and Feeling groups indicated a greater consideration of quitting college. Responses from Sensing participants often centered on their struggle to find purpose in specific courses and their frustration with having to take so many required courses that did not align with their intended goals. Their responses included: "I've contemplated quitting only if something better would come along, something that I felt a better use of my time than college" (page 23, Q3, para. 2); and "I wouldn't say I thought about quitting college, but for certain classes especially those I wasn't required to take, like economics, I wanted to rip my brain out" (page 23, Q3, para. 4). Sensing participants noted being stymied by academic setbacks more often that other typology participants. While responses to Question 11 in the Focus Group Interview will bring this more to light, one Sensing student's answer to the current question indicates a similar response by many honors students, but especially Sensing students:

> I would leave class sometimes after taking a test and I would just cry because it was so hard, and I had never failed like that before. Just failed a

> test. And so I remember calling my mom and saying I think I need to do business, because I was more business minded. I didn't really think about quitting college; I just didn't think I could do the program that I was in and needed to switch. (page 33, Q3, para. 1)

Feeling participants focused on issues having to do with issues of personal motivation and a lack of passion for what they were doing or not doing. As one respondent said:

> I guess the classes I do enjoy I don't get to give all of my energy and emotions to because I have to spread out through all of the classes and stuff. That can really take away my passion for school. (page 23, Q3, para. 3)

Another Feeling participant stated:

> I kind of feel like I just have to keep going. I feel like if I slow down, I'm afraid I will quit. I've just got to keep pushing on. I want to quit. But, then, I also want to show [her family] . . . because I never had motivation to go. (page, 44, Q3, para. 3)

Again, respondents , notably this Feeling typology participant, mentioned the stimulus of being in the honors program as a reason to remain enrolled:

> I'm doing this off sheer will to learn, and sometimes that runs very thin. Especially doing the core classes. I feel like I haven't gotten to take any class that I actually would really want to for enjoyment, because I'm trying to do this honors thing that sucks up, which I love these classes more than the rest which is weird, but I don't know anything that I want to do

> because I haven't been exposed to anything new other than the same classes that I took in high school at this point. (page 23, Q3, para. 1)

Fewer participants with preferences in the Thinking and Judging typologies said they had quit or seriously considered quitting during their first two years of college. Most of these indicated a specific goal for attending college or an ultimate desire for a degree in any subject. A Judging participant said he had never considered quitting because "I thought college was a means to an end" and just the next step in "the plan" (page 56, Q3, para. 3). Several said they just love going to school and being in the academic environment. One Thinking participant said:

> I love to go to school, so it was never an option for me to quit. If I could, I would actually go to school the rest of my life. I love learning and being in that atmosphere. It was never even something ventured in my mind. (page 56, Q3, para. 1)

Responses from the participants in the Intuition and Perceiving typologies varied to this question. On the whole, participants in these two typologies needed to see the "big picture" of why they were there. One Intuition participant said, "There were times I had some frustrations, 'OK, I'm done with this,' but you fight through it. For me, again, it was a whole new way of life; I had to learn something" (page 36, Q3, para. 3). Another Intuition respondent said:

> There's been a lot of stress and a lot crying. But, not actually wanting to quit, because I feel college is where I'm supposed to be, and I feel I'd be giving up on something bigger than anything else I could be doing. (page 77, Q3, para. 3).

A Perceiving participant echoed that, saying, "There were times I didn't know why I was in school. But I always had an idea that I was progressing toward something. So I never thought about quitting" (page 4, Q3, para. 2).

Additionally, more than half of the Intuition participants mentioned the expectation that going to college would be a momentous, life-changing event. For a couple of the Intuition participants, that expectation ended in disappointment, as stated by one man:

> If there was something better, I would definitely give it up. Something I'm more passionate about, something I could see making a bigger impact on my life like changing me in different ways or like changing, helping other people change their lives. (page 23, Q3, para. 2)

Those expectations were met in one woman's experience:

> They were telling me this [her two-year college] was the next step to get a career and this was kind of like an intermediate step . . . . I realized that if I don't get a specific direction it's not going to serve as that intermediate step. But there were a lot of things, like my fellow students and the honors program, that I realized there was a lot more value I could mine out of there than just my original motives . . . . I love how in the honors program [it] aligns you with the big ideas that created this atmosphere, it keeps you in a perspective so that it doesn't turn you into something that you hadn't intended. (page 56, Q3, para. 3)

The expectations of others, however, affected a consensus of Perceiving participants who noted how much those expectations both negatively and positively

affected their desire to go on. One Perceiving respondent, who was finishing up her master's degree in history, stated, "I can't stop, because I've got way too much invested. Too much time, money, effort. I have people that have been watching me go through this and are expecting me to do something. And, I just can't stop" (page 44, Q3, para. 7). The struggle between individual goals and environmental expectations and requirements can be clearly heard in this Perceiving participant's response:

> I did [quit]. I just felt like I came [to college] because I was expected to, because that's what everyone does in my family. You just go to college and you get a good job and you make good money, because that's just what you do. And I didn't feel like it was my dream, so in my rebellious stage I was going to quit. But then I realized, I do want to be in college and this is what I want to do. (page 77, Q3, para. 5)

Focus group interview question #4. *Were there any experiences in the classroom that caused you to feel more or less uncomfortable? How about on campus but outside of the classroom?*

Performance focus groups. Responses to this question can be categorized in two topic groupings and were present in all three Performance groups. The first topic centered on the honors students' comfort with the structure of the college classroom environment, namely their response to the instructor and/or how the subject was being taught. For nearly all respondents across the three Performance groupings, they preferred an interactive classroom where students engaged in discussions relevant to the subject and where a student got to know other students and their ideas. Preferences were further narrowed to an overwhelming desire for small group discussions that were open-ended,

requiring use of the subject knowledge at issue, such as the method employed by the honors program of which each of them were a part. Nearly all the respondents in the three Performance Groups generally indicated their time in a lecture-style class was, in the words of one Poor Performer, "sitting there waiting for the clock to run out" (page 24, Q4, para. 4).

One Moderate Performer said she was most comfortable in the honors classroom "because we did so much engaging in the class among the students. In a lot of the other classes, you rarely interact so you don't know people any better at the end as you did in the beginning" (page 23-24, Q4, para. 1). Another Moderate Performer stated, "We're not just talking to the teacher, we're talking to each other, so that helps me understand something better and that makes me more comfortable" (Page 24, Q4, para. 3). This type of classroom setting also permitted students to bring their own ideas to the table, as summarized by this Moderate Performer group member:

> I think the classes that made me the most comfortable allowed me to have my own interpretation of things, whether that's honors, or ethics, or history, there's a lot more freedom and independence with that. Those classes that made me uncomfortable is the exact opposite, like the ones that say this is how you do this and do it the right way, don't go off on your own thing. I'd rather expand on my own ideas, within a framework, you know, but going after things on my own rather than other people's ideas and interpretations. (page 24, Q4, para. 4)

While the interactivity of classes created a social environment conducive to these students' learning, others commented on how the same engagement forced them to more

deeply consider their own ideas, to communicate those ideas, and, as one respondent stated, to "develop your intellectual capabilities . . . . That was the most uncomfortable part" (page 66, Q4, para. 5). This second topic was especially noticeable in the Top Performers, who recognized the learning that took place in that kind of setting, even if it was uncomfortable at times. As one respondent said, "[It was] those times that made yourself ask, 'What am I thinking? How did I get here?' And it was, like, 'I don't really want to know. I just know that I'm here, so just leave it alone'" (page 66, Q4, para. 4). Another Top Performer noted how the setting challenged the intellectual boundaries he had established to that point, agreeing that what made him uncomfortable was:

> Yeah, pushing yourself to see where those limits were. And people kept pushing and saying, “you can do better than this.” And I'm like, “I don't know if I can, I don't want to fail at it so I'm going to stop here because I know I'm safe here.” So anything that went beyond that made me uncomfortable. (page 66, Q4, para. 6)

For two of the respondents, both Poor Performers, their limits were so challenged by the topic and the reflection required by the instructors' pedagogy, that they needed the distance between those first two years in college and their respective focus group interviews to consider the balance of benefit of their experiences. One of the Poor Performer respondents noted how his discomfort in a philosophy course led to his "falling out of religion." He said:

> It was all happening behind the scenes of the class. And in the class it gave me so much to think about and feed off of. At home that would make me feel uncomfortable, like that losing of the faith around people who do have the faith. So that definitely made me uncomfortable. (page 66, Q4, para. 2)

The other respondent found a creative writing course challenging in a few of the assignments, where, as he explained:

> You took something dark from your past and wrote about it. So that was very uncomfortable for me to delve back into that. Challenges like that that push you to do something you're not prepared for -- or weren't prepared for coming from high school -- those things make you think a little bit more, challenge you to take one step further in your mind. (page 66, Q4, para. 3)

Dominant typology focus groups. Responses by the participants in the six non-environmental typology groups were, like the three Performance Groups, similar in focus. The typology group interviews, however, tended in these sessions to be more concerned about their comfort or discomfort with the social environment of college, both in and out of the classroom. Two general perspectives were noted across all the groups: the first focused on the students' comfort with their own ideas when other ideas are present in the environment and the second pertaining to the students' identity development in a new environment.

It should be noted here that, while the environmental MBTI typologies of Extroversion and Introversion were not a part of the qualitative research, there is clear evidence that both typologies respectively influenced the lens by which the respondents saw themselves and their environment when they were students. It is also apparent by their responses that these typologies influenced their reflections on that experience during the focus group interviews. A greater analysis of the two typologies' influence will be discussed in Chapter Five.

The first emergent perspective centered on the individual student's response to others and their ideas. Because of the more intense interaction in some classrooms, the honors classroom most notably for these respondents, the interaction prompted students to consider their own ideas, the security of those ideas, and for many their expected abilities as an "honors student." One student with a dominant Intuitive typology said:

> There was a restructuring of the pecking order, because I went from being a big fish in a small pond to an indeterminate fish in a medium pond. Just that re-orienting; they say if you're the smartest person in the room you're in the wrong room. So I wasn't anymore, and so coming to terms with that and engaging with people who could stand on their own two feet and not immediately acquiesce that was uncomfortable for me. (page 67, Q4, para. 4)

A Judging respondent struggled with the security of her own ideas in the face of others who were "smart" too. She stated: "How do you stand behind what you believe and support it fully but be accepting of others at the same time completely to where you can build relationships with people and interact with them but on a different level?" (page 67, Q4, para. 2). Similarly, a Thinking participant said point blank, "I stopped caring if people thought I was stupid. Because I know I can be very stupid. I've admitted that, but I don't really care if someone else thinks I am" (page 45, Q4, para. 2). Another Intuitive respondent found adapting to a more diverse environment of ideas and people to be challenging, saying her biggest discomfort was:

> . . . having so many teachers, and peers even, who had such different world views and trying to fit what they're talking about and how they're talking about it in

> [with] what you already believe . . . and then realizing that other people do have something to say about issues. (page 67, Q4, para. 6)

The second generalized perspective that emerged from the responses concerns the participant's reflection on the insertion of his or her developing identity in a new environment. In every one of the eight responses coded with this perspective, the participants saw themselves as inherently unprepared for, uncomfortable in, and/or unwelcomed by this challenge. As one Feeling respondent representatively noted, "I didn't ever feel that I really belonged. I felt like an outcast the whole time so I felt uncomfortable the whole time" (page 4, Q4, para. 1). An Intuitive respondent explained his search for friends based on intelligence:

> What I like about honors is that people are at your intelligence level or higher. That's what I really like. Because in high school that was just so stressful to me because people would tell me I was really smart, and it would make me feel really depressed. I felt like I couldn't talk people my age, so I would make friends with people 10 years older than me because I felt like I could actually talk to them. And in honors it is better, because people are at your level or higher. (page 47, Q4, para. 3)

As noted previously, the environmental typology of Introversion appeared to influence these participants' responses. In fact, Introversion was either the dominant or the auxiliary typology for these eight respondents.

Two Intuitive respondents noted their "shyness" around others, with one mentioning her struggle with taking the required Public Speaking course and both of them saying they struggled with simply finding a place to eat lunch: "Anything that

[means] being with a large group of people makes me uncomfortable" one said. Another stated, "For my own personal reasons, I try to stay away from that. Even such things, as I didn't eat at Putnam [dining hall] because I couldn't; I didn't know where to sit" (page 15, Q4, para. 3). A Thinking respondent mentioned how the "me" assignments in honors were the most difficult for him to complete, explaining, "I struggle a lot with self-acceptance and self-appreciation" (page 66, Q4, para. 8). Another Thinking student noted how the honors assignments focused on the "self" made her uncomfortable "in that you realize your insecurities. So that was something odd to deal with" (page 78, Q4, para. 1). For two of these eight respondents, the connection they made with their instructors eased their adaptation to the environment. One Intuition respondent noted, "So you feel like by and large your instructors are pulling for you individually, so that creates a sense of community" (page 56, Q4, para. 3). A Judging participant echoed that, saying "I mean most every teacher knew my name. I spent a lot of time on campus because of that" (page 56, Q4, para. 2).

Finally, a handful of respondents also mentioned how activities outside of the classroom did not assist them in countering the anxieties associated with the totality of their new environment. As one Feeling respondent stated:

> I think the experiences outside of the classroom tended to make me feel more uncomfortable because I didn't seem to fit what was around me. I felt like I was drifting around like a weirdo. So, I tried to stay away from campus when I wasn't in class. (page 24, Q4, para. 1)

Focus group interview question #5. *What would you say was THE best learning experience you had? What made it the best?*

Performance focus groups. Because all of the participants had very similar experiences during at least their first semester in college by virtue of their enrollment in the honors program, most of their responses mentioned in some way their honors courses. Putting that aside as a most likely commonality, coding of the responses focused on the experiences they mentioned or, in many cases, did not mention.

For the Performance groups, a single distinction emerged between the Top Performers and the Poor Performers, with responses from the Moderate Performers reflecting both sides. Generally, Top Performers mentioned experiences in detail, noting specific books, classroom activities, or assignments as being the best learning experience. Poor Performers typically spoke of the class environment in general terms, such as its open-endedness, the interaction between students, and it being different than "all other" courses. Again, responses from Moderate Performers generally were of the same tone and content of the two sides.

Nearly every Top Performer participant spoke of a specific element in relating his or her best learning experience. For example, one respondent mentioned a segment in the first honors course involving Shakespeare's *Hamlet*:

> When we went through Hamlet [in honors] and we looked through all of those struggles Hamlet was going through and all of the philosophical questions he was wrestling over . . . and theological. For me that was the first thing in college, not the only thing, but the first thing that really caught my mind and sparked it. I realized I was loving this, I'm just loving this. (page 5, Q5, para. 1)

Other Top Performers mentioned an essay assignment in which they had to read three books and then write a three-page paper bringing all of the ideas of those three books together and, using their own thoughts about the topic, solve a scenario-based problem. One woman said:

> For me, I've always read literature, but I never had to pull different ideas together to make one thought or one argument. I mean it wasn't just literature; it was having to do with our personal lives and the world we live in but based on ancient literature. I thought it was really cool. (page 5, Q5, para. 2)

One Moderate Performer said that assignment in particular "challenged me to think much outside of the box" (page 67, Q5, para. 2). Other Top Performers mentioned their first exposure to Existentialism when they read Albert Camus,' *The Stranger,* or watching the film, *The Matrix,* and connecting it with a variety of philosophical concepts. Several others mentioned a lecture on metaphysics and Plato's, *Myth of the Cave,* concept using apples or a paradigm-recognition activity called, *Kissing the Inner Frog*.

In their responses, nearly all Top Performer participants remembered the event, the concept, and then the surrounding discussions and applications. Some even talked about how that learning experience bled over into other courses they were taking, providing even greater context to the concept. One Top Performer stated:

> I think honors was the biggest thing because it relates to everything else. Like whenever we were in the first class, I started relating things to math, like the Myth of the Cave. Like, this kind of relates to that. Look at a graph, you can't prove that thing is there, but you can see that is. I think

> that was one of the biggest learning experiences because it stretches you. You can apply it to everything. (page 25, Q5, para. 7)

That same level of detail was not the case with most all of the Poor Performing respondents and some of the Moderate Performers. For these participants, their responses typically generalized their experience in the course or the program, using few if any details. For example, one Poor Performer participant said:

> I'm having a hard time coming up with an actual example of the best learning experience. I've just had an overall great experience in honors. When I came back my second semester, I dropped all my classes except those [in honors or taught by that instructor], because that was the only reason I was going to college then. (page 5, Q5, para. 3)

One respondent said she "really enjoyed honors, the beginning more than the end. I had a lot a good experiences, though" (page 12, Q5, para. 1). Another Poor Performer simply said, "I can't remember anything, it was so long ago" (page 67, Q5, para. 1).

Other Poor Performers and some Moderate Performers mentioned the course and/or the program as being "the most interesting or most engaging" they had (page 46, Q5, para. 6) or that "Honors isn't about the quantity but the quality of your thoughts" (page 25, Q5, para. 6). A Moderate Performer noted:

> Honors was the first class or experience I had where I could voice my opinion, and I wasn't looked at like an idiot or if someone disagreed it wasn't an attack. It kind of helped me grow a lot and form new ideas. (page 25, Q5, para. 1)

Another Poor Performer said, "I got the most from honors class, but from the other side, hearing other people and considering their perspective more and understand them, or trying to (page 25, Q5, para. 2).

Dominant typology focus groups. Across the six non-environmental typologies, only one unique but differentiating element emerged from the focus group respondents. While some of the participants mentioned the self-reflection, identity-building activities of the honors program as being their best learning experience, others were either challenged by them and/or they expressed some other aspect of their experience was better.

The participants' appreciation of the self-reflection activities could be best seen in the comments of those with dominant typologies of Intuition, Feeling and Perceiving. A participant with a dominant Feeling typology focused on how certain subject material caused her to question her religious faith:

> Being in a class where I was told "you can question things" has helped me to grow as an individual more than anything else in the world. One pivotal moment in my college experience was in the Honors 250 class [when] we talked about Kierkegaard, and he talked about in order to have faith in something you must first doubt. And hearing that lecture, that changed me, and it gave me the confidence to know that anything I believe at this moment I should first doubt . . . . And to hear that and to accept for myself, that if I was ever to believe anything I must first doubt it and then I can make the decision to believe it. That changed me and I'm very thankful to have had that experience. (page 16, Q5, para. 1)

Similarly, an Intuitive participant said his best experiences were those where he had to express his ideas. He stated:

> We learned how to express your thoughts, thoughts you had your whole life in a way you can expand on instead of being locked into what it was when you came in here. I think that's been the best learning experience for me. (page 25, Q5, para. 4)

A fellow Intuitive participant agreed: "Kind of makes you feel you are important, that you can have an impact" (page 26, Q5 para. 1). A respondent with a Perceiving dominant typology recalled her first day in college, her first day in honors, and where it led her:

> I really enjoyed how right out, the very first semester, he does "Who am I?" The first day of college, you don't even know where your classrooms are, and "Who am I?" Whoa, I don't even know that! That was really cool. And then being able to see the world in a different way. That was a little different. The whole Justice concept. That was really a big one because it made me think how I treat other people. Is that my justice or the world's or someone else's? It made me look at how I live. (page 37, Q5, para. 1)

Although not in the group of three typologies, one Thinking participant spoke of an assignment called, *Kissing the Inner Frog*, where students are asked through a transformational learning exercise to expose (to themselves) one or more closely held paradigms that keep them from accomplishing something they greatly desire to do but have yet to accomplish. The exercise can become extremely personal with a variety of emotions present during and after the class. This Thinking respondent spoke of the exercise in her answer to what was her best learning experience, adding, "Like, I said

before, I struggle with self-acceptance and appreciation, so learning more about me to be a better me was one of the best learning things I could do" (page 68, Q5, para. 4).

But not all participants expressed their full appreciation of the self-reflective, identity-building assignments and exercises. Those who expressed discomfort with these assignments were most notably participants with Sensing or Judging typologies. One Judging respondent had mixed feelings in her reaction to the *Kissing the Inner Frog* activity, saying, " I hated it, but I liked it. I didn't like to have to face that; it was nice to see I have insecurities but so does everyone else" (page 78, Q5, para. 1). In conversational response to this participant's remarks, a fellow Judging student stated, "That made me very uncomfortable for a little while. Because I was going through a really stressful time anyway and it led to a slight meltdown" (page 78, Q5, para. 2). She did not say whether she saw any benefit to the assignment.

Two of the Sensing participants talked about what one of them called these "me" assignments. The first said:

> I kind of liked that project we did in honors where we had to find 20-30 things we had to share about our personal selves. But that was incredibly unpleasant for me because I'm not one of those people who like to share things about myself. That was a tough thing, though; it was tough getting it out there. (Page 67, Q5, para. 7)

A fellow group member followed his comments, with, "Yeah, I was going to mention that. Those 'me' assignments were the most uncomfortable things for me because I struggle a lot with self-acceptance and self-appreciation. So like it was really hard for me to do those (page 67, Q5, para. 8).

One Judging participant, however, saw the self-reflection assignments and activities in the honors program as being among his best learning experiences, because, he said:

> . . . because it's really focused on teaching you new ways and new ways to think. But I think it first and foremost has you go look into yourself. Learning things are important, but it makes you know who you really are and to question yourself. (page 78, Q5, para. 3)

One of his fellow group members, however, did not initially appreciate this type of assignments, mentioning in particular the MBTI assessment requirement and discussion. He said:

> I despised it at the time because it made me realize things about myself that I didn't like. But now I'm to the point that I understand my weird quirks, and I use them to my benefit. It's no longer 'why am I doing this?' It's now, 'I know why I'm doing this and I can work with it better. (page 82, Q13, para. 2)

Focus group interview question #6. *What was the worst learning experience? What made it the worst?*

Performance focus groups. Nearly three-quarters of the participants across all of three of the Performing groups blamed their worst learning experience on the incompetency of an instructor, or at least their perception of a teacher's incompetence, in the classroom; yet, in many of their responses, they also spoke of a frustration with themselves. As one woman said, "How could I not understand?" (page 26, Q6, para. 1).

Responses from this larger group of participants, consisting primarily of Top and Moderate Performers, sounded a familiar chord throughout: "In my opinion, the teacher

was inept" (pages 26-27, Q6, para. 7), as one Moderate Performer put it. He continued:

> Our first test we all got Cs as the average. It was frustrating to me, because I've been good at math. I've made As in every other math class I took. But then when I took that one, I couldn't do it. Why? (page 26, Q6, para. 7)

Another respondent had little trouble deciding her worst experience:

> The teacher has a Ph.D., so he knows his stuff, but he just can't teach. There's no way that he was sending out the information and that 90 percent of the class was receiving it. Any person I asked in there all gave me the same look, and that made me feel pretty insignificant. Because I'm, like, "I just don't understand. How can I not understand? The book is in front of me; I go twice a week, for this many hours. How do I not understand it?" It made me feel the worst for an entire semester, because I pass my classes and I get good grades. So to get a C, for me it's like I can't stand that. (page 26, Q6, para. 1)

While some of these Top and Moderate Performers focused on their instructor's teaching failures, others also stated how the subject could have been taught much differently for a better experience. One Moderate Performer said, "It was an amalgamation of every subject you've ever even heard of. And you didn't even know what's important and what's not important. It made me not even care anymore" (page 47, Q6, para. 1). Another spoke of her biology course:

> It was insane because we had to go through so much material that we didn't even really cover. But we were still tested over it. So, I think there would have probably been more of a point if I actually just learned by myself. I don't know

> why we couldn't have just slowed down and learned things. At least learned something well. The instructor didn't really lecture. She would just read things off the PowerPoints. (page 47, Q6, para. 4)

Some respondents' comments were mixed with a sensing of their own gifted abilities. One Moderate Performer spoke of his astronomy instructor: "He was the worst. You could tell he didn't take it seriously. I didn't learn squat in that class, and I sat there and seethed any time math came up because he always got it wrong" (page 69, Q6, para. 1). Speaking of a chemistry course and its instructor, one Moderate Performer said, "I think the worst part of that entire experience is that she treated her students like idiots" (page 47, Q6, paras. 2, 4). Another Top Performer said of a math class:

> I would spend three or four hours on a single problem in that class. And the next day I'd come to class and, no one in the class got it, so she'd start working on the problem in class on the board. She'd go through it about four times, messing up half way through only to finish the fifth time through, saying, "I don't know how to finish this" and just throw it out. "So I just spent three hours working on this and now you're going to throw it out?" That just really pissed me off. (page 69, Q6, para. 3)

One respondent, now a college instructor himself, related his frustration with an economics class and the instructor, stating: "I had macroeconomics that I took my first year. It was awful. The biggest problem was that there was no effort to relate to any of the students. It was total regurgitation. Communication was just awful" (page 69, Q6, para. 7).

For the most part, the remaining quarter of participants, all Poor Performers except for a couple of exceptions, identified how a particular experience where their abilities or creativity were somehow limited or constrained made it their worst learning experience. One respondent spoke of her disappointment in her first honors course, where she requested an alternate assignment that did not require writing an essay:

> For me it was the exasperation I felt from knowing that, as honors students, we were all capable of showing our knowledge in other creative ways. So I was disappointed in this really almost cookie-cutter approach to education that's like, I wasn't asking for special treatment as an honors student, but I was asking for an outside the box approach to our ability to express what we had learned. I felt sad that everything was so black and white and I had to play by that specific game. So that bothered me. (pages 5-6, Q6, paras. 1, 4)

Another participant, also a Poor Performer with a strong Intuition typology, said she wanted to focus on something else and not on what her instructor expected her to do:

> I've always loved history, but I wanted to look at the movements and write papers about why one thing affected others, but it felt like there was just very, very small details that were pulled out of the book rather than the big picture, and I didn't like that. (page 6, Q6, para. 2)

Finally, two of the other respondents, one a Moderate Performer and the other a Top Performer, spoke of their frustrations with their non-honors classmates. One related an experience in a religion class where she was the only one to take a particular stance:

> I made this really big argument, and everyone was really mad at me because I didn't side with the ladies and the guys were mad because I was a part of their

> group. I wasn't on the fence. My teacher was happy, but everyone else was really mad. So I sort of ran away quickly after that. (page 70, Q6, para 1)

A fellow focus group member explained that her worst learning experience was due to her classmates who failed to live up to her expectations of thinking:

> I liked public speaking and I liked the instructor, but it was the other people in the class. There were so many people who had never been exposed to opening their minds to anything else. They were so focused in one area that the debates that should have been very enlightening and enriching and open to a new way to view things, just nothing happened. So I think it was just going from a setting in honors to, like, "open it up, take it further," to where no one wanted to go anywhere with it. (page 70, Q6, para. 2)

Dominant typology focus groups. The highest number of like responses across the typology groups focused on the participants' experience in a required public speaking course. Nearly all of those who mentioned the course were introverts to some degree (Introversion, however, was not necessarily their most dominant type), and thus this type of response should have been expected given the personal challenges associated with that type and nature of the course. One Sensing student summed up most of these responses:

> I like to write and I can tell you anything and everything on paper, but I don't want to get up and talk about it. I don't even think it's stage-fright. I don't know, the social contract confounds me, and I hated public speaking because of that. And it wasn't that I was scared; it was just that I didn't want to be there. (page 12, Q6, para. 1)

Many of the remaining responses were similar to those in the Performer groups, with all coming from participants across the six non-environmental MBTI typologies. Those respondents who blamed the instructor for their worst educational experience came from those with dominant typologies in Sensing, Intuition, and Judging. One Sensing student said:

> We have a professor, while he is very knowledgeable and he's a kind person, he doesn't explain our topics thoroughly. I feel like he's explaining biology to people who already have a basic understanding of biology, and I need a much more thorough explanation. (page 17, Q6, para. 1)

An Intuition participant answered:

> Listening to a teacher talk about how great he is, was probably the worst experience. He talked about all of his athletes, and his high school days, he's just so dumb . . . it's the worst. You can't do anything; you just have to endure. You can give your emotions to other class work. (page 26, Q6, para. 2)

The characteristics of the Judging typology came through clearly in this participant's response concerning an education professor who was "teaching me how to be a teacher and they were doing it completely wrong. I was just supposed to listen to what they were saying and not copy what they were doing" (page 38, Q6, para. 5).

Three other Judging participants focused less on a single instructor and more on a general dislike for teachers who lacked one important characteristic to them. Here is their brief exchange:

> - "I didn't like being in a classroom that didn't care about his or her students or didn't care about the subject."

- "Yeah, a lack of passion really shows. It really turns you off."

- "Especially in college, and it could be a class that you really want to learn about. And they just drone on and on . . . . Don't really care." (page 38, Q6, paras. 7-9)

Again, the participant's sensing of his or her own abilities and the desire to go above and beyond the expected emerged in some of their comments. One respondent with a clear Thinking preference was still agitated after four years:

> Our final project was supposed to be a worldview project, but she didn't know what she wanted. So she said, "I want you to do a video project, and I want you to include these things in there." So I did, but I also had a Prezi (electronic presentation) set up so I could include the historical background, and then we had our video. But she didn't like that. And I spent hours and hours and hours on it, and it was perfect, but I got a B- on it. Everything I had done met her basic criteria, so I couldn't understand how she could have taken away so many of my points. (page 79, Q6, para. 1)

A Judging respondent summed up the view of many of the former honors program students, saying, "The worst experience is that there's no such thing as perfection. Inevitably, you're not going to get a 100 percent on anything" (page 69, Q6, para. 5).

Some respondents realized, however, that their "worst experience" was simply a great challenge, such as this Sensing student who talked about test days in her first-year nursing courses:

> So you have to critically think and you have to apply what you've learned in the classroom. Just to get used to that testing style was an adjustment. It was really hard to get used to, and to come up short. And for me it was to come up short multiple times. I just felt like I was beaten down every time, and I would just fail. I would just cry after tests. (page 33, Q6, para. 1)

Similarly, an Intuition participant associated "worst experience" with the challenge she had writing her first "non-typical" essay in honors:

> The papers were really hard, because you had to analyze, and then to structure, and then re-analyze, and it really made you put a lot into the thought process into writing one of those papers . . . . I don't know if hate would be the word, but it was tough, very, very tough. (page 38, Q6, para. 2)

Focus group interview question #7. *Describe how you learn best. Now describe the perfect learning experience/environment for your way of learning.*

Performance focus groups. The former honors students who participated in the Performance focus groups all tended to like the open discussion, small-group interaction method primarily employed by the instructors in that course; however, Top Performers indicated, in general, a greater willingness to see the value of other methods to learn and utilize the subject matter. Most of the Poor Performers, on the other hand, tended to focus solely on the interactive classroom setting as being their best learning environment or they spoke of their struggle to find the right learning environment or method that, as one woman said kept her "awake and focused" (page 27, Q7, para. 4). As might be

expected, Moderate Performers responded along both lines; however, like the Top Performers, most of them spoke of successfully using multiple ways of learning.

Responses from the Top Performers expressed their general understanding that different subjects need to be approached in different ways. One woman said:

> It depends on the course really. Like in a math course, there's no way anything other than a lecture can work for me. Like I can't do anything else. And then in philosophy or sociology, I would need the lecture for the actual ideas, but discussion would help me fully wrap my mind around the idea or like seeing other people view certain things. (page 70, Q7, para. 2)

A fellow group member of hers put it this way:

> I agree, it's contextual because it obviously depends on the subject matter. And I'm across the spectrum, too. It depends on how I feel like engaging it at the time almost, depending on what the subject matter is. Sometimes it's kinesthetic, but the problem with group discussion, sometimes, is you end up, if it's not facilitated right, getting a consensus of the extraverts. But for something like a philosophy class there's almost no other way to do it. You just have to find the best way to find that high mind and wrestling it out. (page 71, Q7, para. 6)

Like these two respondents, the other Top Performers mentioned an interactive, discussion-based environment has being their favorite. Most all also spoke of a particular method useful to them, whether it was one man's desire for "someone watching you do it and getting that feedback" (page 71, Q7, para. 4); one man's need "to be writing down what they're talking about and [seeing the instructor] writing on the board, because I have to take notes, pay attention and still have some question and answer type things

going on" (page 48, Q7, para. 3); or a woman's preference to watch "someone else demonstrate or talk about it in a way that makes sense" then applying it in some way, which, she said, "is me writing about it in a paper or in real life; I have to be able to do it so I know I can do it" (page 71, Q7, para. 5). With only a couple of exceptions, all of the Top Performers indicated in one way or another their ability to use a multitude of learning methods as they adapted to various learning environments. This respondent explained:

> So I like to sit and take notes, and say I'm in a biology class, sit and take notes over whatever and then go do my lab. The lab helps you bring the hands on, and then you can go to your tutoring if you don't understand. But one thing the teachers are doing that I like are posting YouTube videos on BlackBoard and other kind of websites and other sources of information that will help us understand. So I think a mixture of classroom, and hands-on, and online. It's about just being able to use all of your resources to teach the student . . . . The more they can get [us] to learn on our own, the easier it is for everyone in the classroom to excel. (page 39, Q7, para. 3)

Poor Performers and some Moderate Performers, on the other hand, spoke either of their preference for a learning environment using primarily the open, interactive engagement model or they mentioned their struggle to adapt to other styles or even to find a method that worked for them. For instance, one Poor Performer said of math- or science-based courses that, "It seems those are the ones that can really use more ways of giving [the information] since more people have trouble with those classes than some of

the more thinking, reading, writing classes by nature" (page 28, Q7, para. 4). In speaking of his honors experience, one Moderate Performer noted he liked "being able to sit down as a group of people and talk about it for those kinds of subjects" but in math and those types of courses, "someone has to show me how to do every single different type of problem. So, I have to be shown on that one, but other [subjects] I like to sit down and discuss with people and have other people's input besides mine" (page 49, Q7, para. 2). Finally, a Poor Performer was still struggling to find the right method, stating:

> I'm not sure. I tried for a long time to try to figure out my learning style because I would do the tests and stuff, and I never thought they were right. I really think I'm a musical learner; no, really. I think I can imagine my ideal learning environment; I see it like my own personal Schoolhouse Rock. (page 27, Q7, para. 3)

Dominant typology focus groups. There were no particular themes or topics that surfaced across all of the six non-environmental typologies other than, and similar to the Performance groups, nearly all respondents liked the interactive engagement method of their honors courses and most had found ways to adapt to learning environments that did not employee such a method. One Thinking group participant representatively summarized these respondents' ideas well, saying:

> I think I do best in discussion-based classrooms because I'm an external processor and I have no idea about what I think until I start talking. So, being able to have discussion and make statements in the process of moving to an idea or thought or opinion really helps me to bounce that off and start before I move to another. (page 6, Q7, para. 3)

Those with an Introversion or Extroversion among their MBTI preferences similarly liked the interactive engagement model. A man with an Intuition first preference and Extroversion second preference, said:

> I like having a small classroom stuffed full of people and the instructor lecturing . . . because when I'm in a room with empty space it's sort of distracting to me. But when I have a bunch of people with me all collectively engaged, I feel some kind of unity in that. (page 7, Q7, para. 1)

His fellow Intuition group member with an accompanying Introversion preference agreed but for different reasons, responding:

> That's fascinating because I'm exactly the opposite. I prefer fewer people; I would like a smaller group of people in a classroom. I feel like I flourish in a smaller more interested group than a larger scattered -- seems like the larger it gets the less focused. (page 7, Q7, para. 2)

While most of the respondents in the six non-environmental typology focus groups had similar responses as the above three examples, there were other responses worthy of note by those who preferred the Judging typology, who tended not to like the interactive engagement model, as well as some interesting answers by those within the Perceiving and Feeling groups.

Judging participants generally did not prefer the interactive engagement model used by their honors courses; rather, they indicated a desire to tackle the subject matter on their own. Those with the environmental typology of Introversion wanted to do so in an environment they passively controlled. As one such Judging respondent explained: "I have to have that audio, visual, and doing it myself. If I'm studying then I have to be by

myself" (page 1, Q7, para. 1). Another said, "I seem to forget everything I hear in honors. [Interviewer: So, how do you learn best?] Um, experience. Actually experiencing something. And I need pictures. Not just pictures. I need visual" (page 48, Q7, para. 1). One Judging man needed his time with the material first and then he could discuss:

> I learn best when I get to interact with the material on my own and then reflect on that material and figure out how I think about it or how I understood it. And then I go and compare my understanding with other people and have the group discussion thing. And after that [I] reflect not only on what I thought beforehand and but also the group discussion, and then I can really figure out the material, what it meant. (page 38, Q7, para. 1)

Of the six Feeling participants, four of them spoke of how they wanted something out of the total environment that surrounded them, either in a classroom or as they studied. Typically, that 'something' needed to be, as one Feeling respondent put it, "a really flexible, dynamic, ever-changing flowing creative environment where it's not rigid and structured" (page 6, Q7, para. 1). Others responded similarly, as one woman explained about wanting "some sort of goal to reach at some point," saying, "I want some sort of freedom and encouragement to explore on this path of getting to this point. 'Learn this but get there however you need to get there to do it'" (page 7, Q7, para. 2). Yet another Feeling respondent said:

> If I want to learn something I find I have to absorb myself in the topic. I learned that actually in the philosophy and honors classes, because I would be up late at

> night and I would just go outside and walk around and just think and then go inside and read and then go outside and think. And I would do the same thing the next morning. (page 70, Q7, para. 3)

Finally, the last of the four Feeling group members said her perfect learning environment would be:

> . . . Like a room filled with plants and pillows on the ground and like comfortable clothes and the temperature's not really cold? I mean really. I take a lot of online courses now because I need to create my own environment to learn in, and I feel like I'm doing much better because I don't have all on-campus classes like I did before. I can prepare myself a place to go into the world of learning. (page 27, Q7, para. 1)

Focus group interview question #8. *What about going to college made you the most anxious or stressed?*

***Performance focus groups*.** Responses for this question fell in three primary areas with no particular response associated with a particular performance. The three areas were concerns about their success or failure, anxieties over dealing with people, and issues with money.

As noted by Callard-Szulgit (2003), Noldon and Sedlacek (1996), Robinson (1997), Schwartz (2007), Seifert et al. (2007), and Worrell (2007), honors students often stress over their level of success and/or the threat of failure while in college. The Performance respondents in this study indicated concerns with getting and maintaining good grades and managing their course workload. One Top Performer's answer sounded

a concern echoed in all of the focus group interview sessions, when she said "fearing failure" was her greatest concern:

> Like getting that B on the test. It's coming from a place where you were on top or you were the big fish and then being presented with this bigger arena and challenging material and being scared you didn't stack up. (page 71, Q8, para. 1)

A Top Performer agreed, "Grades, I was always anxious about grades" (page 72, Q8, para. 4). A Poor Performer noted both topics concerned with success and failure, saying they were all tied together for him:

> I'm on a Pell grant, so I haven't had to worry about taking out loans. But there's that feeling of if I don't maintain the grades then I have to drop a class, and then I'd have to pay for that. You can't really quit without there being a consequence. But being an honors student I felt tied to the grades, if you want to graduate that way. So I'm not particularly smart so I have to work really, really hard to keep my grades above that level. (page 29, Q8, para. 1)

Anxiety about being able to handle the workload of college was on the mind of several respondents as well. One Top Performer said he worried about:

> . . . getting behind. Like getting so much homework due and so many readings to do. It takes up my time and you don't get to relax, and that stresses me out. I'm too afraid of getting behind and my grades falling. (page 29, Q8, para. 2)

A Moderate Performer, who is still in college at her transfer institution, spoke of her 21-credit hour workload as well as the load of her part-time job and the time required by her involvement on campus: "I have to keep these grades because I don't want to lose

my A+ [scholarship], and the money would suck, and my parents would kill me, and that's going to affect my GPA and my scholarships when I transfer" (page 29, Q8, para. 3). Another Top Performer said she created much of her own stress by failing to manage her time well. Like many honors students, she attempted to do "everything" she could even though, as she said:

> I'm not a very balanced person. So I have one or two classes that I just love and live for and put all my time and energy into that. And then whatever little time I have left I try to cram everything else into. And so one or two things that I love get done really well and everything else just gets done. (page 8, Q8, para. 1)

A Poor Performer said she envied Apple Corporation founder Steve Jobs because he dropped out of college but then attended classes without having to pay for them or be accountable for homework or grades. She continued:

> When you're in college you don't have that sanctuary from work. You have another book to read, another paper to write. That's challenging . . . and that's a good thing. I'm not saying that's a bad thing. In fact, I do need that, that stress in my life, at least now. But I can't help but envy that no-strings attached college experience. (page 7, Q8, para. 2)

The second area of concern expressed across the Performance groups was the respondents' concerns about meeting and dealing with other people. One Top Performer explained that, "I don’t dislike people so much as I don’t like to be around them. I didn’t like the idea of having to come to a new place with new people." A Poor Performer was concerned about finding people like herself, explaining:

> I was so afraid that I wouldn't have anybody that was like on my level as far as just what I'm into. And then I realized as soon as I got here that, especially in honors, that there were people that I instantly gravitated to. (page 49-50, Q8, paras. 4, 1)

More bluntly, another Poor Performer put it this way:

> I'm not a social person. I don't like being around people. I don't like meeting new people. I don't even like the work it takes to maintain friendships. It's just, I don't know. I am definitely that introvert, 'Give me a book and leave me the hell alone' kind of person. (page 49, Q8, para. 2)

As can be seen in the above response and with responses with some of the other interview questions, the influence of the environmental MBTI typologies of Extroversion and Introversion emerged as a contributing factor, especially for those with an Introversion typology.

The third concern expressed in all three of the Performance groups focused on financial issues. Sometimes the issue was having money while still enrolled in school. One man, a Poor Performer, said he dropped out because he needed a break from school but then, when he wanted to come back, he did not have the money to go: "I didn't know how I was going to pay for books or food or gas or anything," he said. "My parents are like, dude, you're done. Why are you asking for money?" (page 28, Q8, para. 1). A Top Performer, who is still enrolled at his transfer university, said she has consistently stressed over money during her college years, trumping all of her other concerns and

causing her to work a 30-40 hour job. A first-generation student like many two-year college students, she said she would love to not work; however:

> How am I going to afford this? That's my number one [anxiety]. I have to [work this job], or it's not going to happen. I mean I get stressed over papers, but I'm going to get that done. But paying for it, that's what stresses me out. (page 59, Q8, para. 1).

Dominant typology focus groups. Respondents among the six non-environmental typologies expressed similar anxieties about going to college. In all, nearly three-quarters of them indicated concern about balancing course workload with financial and work obligations. This Judging group participant summed many of the responses, saying, "I took a lot of credit hours, and I worked a lot of hours. It's trying to balance everything and still make decent grades" (page 80, Q8, para. 4).

No single typology grouping had a significantly higher or lower percentage of this type of response; however, some responses were worthy of note because the participants mentioned how college, work, and other parts of their lives were linked. Such linkages, perhaps created by attempting to do too much at one time, clearly stood out for some respondents. A Feeling group participant explained her thoughts entering college, saying "How do I afford this? How do I find the time to have a job that I can work enough hours to financially support myself and still have time to go to school?" (page 17, Q8, para. 2). A Thinking group member agreed:

> You have to work. You can find time to do homework, and you know you're going to get it done somehow. You know it would be easier if you didn't [work], but if I work part-time am I going to able to afford food and

> afford rent? It would make classes a lot easier [if I didn't work], because I could take more classes. Would I actually be able to do all of that and still be able to afford school, though? (page 59, Q8, para. 2)

Yet another Thinking participant said her "inability to prioritize" forced her to "pull away from some relationships" because, as she stated, "I couldn't hang out with [my friends] any more and do school" (page 59, Q8, para. 6). Finally, a nursing/Emergency Medical Technician student with a dominant Sensing typology and obviously confident in her abilities responded:

> Mine had nothing to do with work, because, like I said, I worked in high school and was used to it, and college was a break for me on the working end of it. But because it was a break I decided to fill my schedule up. So I was going to two different schools full-time, and I had clinicals and had a full-time job. So that was my stress; part of it was making everything flow together, with all my homework, tests, and clinicals and having three hours of sleep each night. I heard something one time that said, "You have good grades, a social life, or sleep. Welcome to college, pick two." So that's how I looked at it; you know pick two out of those three. (pages 39-40, Q8, paras. 3, 1)

The other one-quarter of participant responses varied between concerns about meeting new people, the lingering questions of whether he or she would succeed in this new learning environment, and worries over the "unknown."

One Intuitive respondent with a nearly equal preference for Introversion said her top anxiety entering college was "meeting new people." She continued: "Shy people don't

like to get out of their comfort zone. I don't have the social skills. That was definitely the worst: being open to people and talking to people" (page 17, Q8, para. 1). A Feeling participant said she worried about making new friends, stating, "I had so many high school friends and I had to let them go. And I was worried if I would have close friends again. I was just most anxious about being accepted again and not just being alone," (page 80, Q8, para. 2).

While some spoke of their abilities to "handle it all," others questioned whether they would succeed. "I was worried about making decisions for myself," one Perceiving participant said, "because I was so used to, 'Hey, mom, can I go do this?' Then it shifted to 'I'm going to go do this.' So now I know where I'm supposed to be. That was a huge step for me" (page 80, Q8, para. 3). An Intuitive respondent said he "always worried" about incorrectly understanding a concept or completing an assignment that did not meet expectations of the instructor:

> Every time I turned in an assignment I was always like, what if I read it wrong or did the completely wrong thing? And then I get it back it's like, "Well, it's good but it's not what I wanted." And like with the honors essays they're always strict in length, and I would always come up short, and I would put in filler and I worried that [the instructor] would say, "This is clearly filler and you didn't do enough. (page 71, Q8, para. 2)

Two of the participants spoke of their concerns about, as one of them said, "the fear of the unknown." For that Thinking group participant, the unknown factor was her not knowing what she wanted to eventually do as a career. She explained her feeling of transferring: "The stresses involved with that. I was really anxious about that, not

knowing what I wanted to do when I came up here. Not having a direct plan. That probably had the most stress on me" (page 72, Q8, para. 7). Finally, the unknown factor for one Perceiving group participant, however, was whether the "busy work" she was experiencing would be worth it:

> I think the main reason was this frustration towards assignments being given for the sake of just having assignments. We mentioned busy work earlier and this nonsense just to fill up the time that didn't contribute to my learning or education in any shape or form . . . . It just was a time sink, and it just wasn't worth it to me. That really stressed me out, knowing as I was doing this work that I could be doing anything else with my time right now, and I could be learning a million things that would be so much more beneficial to me than this. (page 7, Q8, para. 1)

Focus group interview question #9. *What aspects of college made you the most comfortable?*

Performance focus groups. One-on-one relationships with instructors and courses where the student had the freedom to express her or his opinion were the two primary responses from the Performance groups. While these responses were prevalent across all three of the groups, Poor Performers, with one exception, focused primarily on the desire for a close relationship with instructors.

Many participants indicated in some way that either an instructor made them particularly comfortable or that a learning environment in which the teacher created one-on-one relationships with students did. Among these respondents was a Top Performer who mentioned the instructor in her required student success course by name, saying

"[he] made me comfortable." She continued: "He calmed a lot of nerves. He's really cool, but also he knew everything about college. That eased me a lot. I didn't have a lot of nerves in taking that next step" (page 8, Q9, para. 2). A Moderate Performer explained that, in her experience, "having those professors who would sit down with me and be, like, 'this is where we're coming from' or explaining the directions better. Just having that kind of support system from the faculty made me more comfortable" (page 72, Q9, para. 1). Another Top Performer stated that, if it had not been for instructors who provided the personal attention she needed, she would not have eventually completed her associate or bachelors degrees:

> Knowing where I came from, if I hadn't been introduced to [the personal attention] right off I wouldn't have survived. I would have dropped out. Definitely having that focused time and knowing you have someone willing to spend time with you to get you to where you need to be or get you to understand where they were coming from was really nice. (page 72, Q9, para. 2)

Nearly every Poor Performer mentioned in some way their preference for an instructor who gave them more personal attention than others or, as one participant described what made her comfortable: "A professor who really cared about your well-being and cared about you" (page 60, Q9, para. 2). Two particular responses stand out, however; both stressed the importance of communication between the instructor and student.

The first respondent mentioned his appreciation for instructors who, by the very act of communicating, eased his stress, saying, "If you felt like you could really talk to

him and he would take the time to talk about it, then that took off a lot of the pressure" (page 60, Q9, para. 1). Responding to the group's discussion about communication between instructors and students, the second respondent of note here spoke of an experience at her transfer institution in which the lack of communication made her uncomfortable:

> I have one class this semester, and there's no communication with the professor. If you come to his office or you email him, he's going to give you a smart-aleck response or tell you, or give you the vibe, that he doesn't have time for you. It's stressful! Every other student I talk to in class is stressed. Everybody hates the class. So, definitely, communication between students and professors. You don't have to answer every single one of my questions, but don't tell me you can't answer at least one of my questions that I have to know in order to understand this [subject]. (page 60, Q9, para. 5)

The one other primary response among the Performance groups concerned the participants' experience with or desire for a less-structured learning environment where they had the freedom to express their own ideas. For example, one Top Performer said she liked "teachers who didn't expect you to adopt whatever they had and then write it down on the essay test. Any of those who did that made me feel more comfortable to express my opinion" (page 8, Q9, para. 3). One Moderate Performer said college was a freeing experience for him after high school, stating, "When I got to college and I had the freewill to go, I actually loved it. I had the freedom to choose to learn, and I think that

made me want to learn more and made me actually continue to go to school" (page 72, Q9, para. 3).

Dominant typology focus groups. Participants in each of the typology groups most often listed having instructors who dealt with them on a personal basis and being with like-minded people among aspects of their college experience that made them most comfortable with the experience. In general, a majority of the respondents said these aspects were the benefits of attending a small college campus and participating in an honors program. In particular, a greater percentage of Feeling and Perceiving respondents identified both of these aspects as being important to them. Those with an Intuitive and Thinking preference tended to focus on the honors program's interactive engagement model, while Judging and Sensing students had little to say as whole.

Most respondents from the Feeling and Perceiving groups indicated they were made most comfortable during college by what they perceived to be attributes of a small campus in a small community. One woman with a dominant Feeling typology said "a friendly atmosphere" made her most comfortable. "If I had gone straight to [a large university] then that would have been uncomfortable. Yes, definitely the atmosphere, where the professors are friendly and participating with individual students if they can" (page 18, Q9, para. 1). Another Feeling woman said, given her first-generation student experience, that the smaller campus and like- but open-minded classmates eased her anxieties and brought out the best in her:

> I felt I could be myself around them, and we talked about these cool things that I couldn't talk to others about at home. I have felt like people here have been more open to talk to me and to be friendly and not quite so

> stuck up, maybe. People here in the different offices are more willing to help, and professors have been willing to help. All of my professors have genuinely seemed to be interested in the success of their students. And that has made me feel very comfortable. (page 18, Q9, para. 3)

A man with a dominant Perceiving typology echoed the appreciation for his honors program classmates who approached issues and ideas like he did. He said, "I mean this college is tiny, and not saying people here are stupid, but the well of students with different views, diversity, the well is not as deep." He noted that only in the honors program was he able to find people "that I felt comfortable around, and [with whom] I was able to go from rampaging at night to intellectually deep thoughts the next second" (page 29, Q9, para. 1). An Intuitive typology group participant had a similar response:

> I really liked how small this campus is. Being able to walk down the hallways and see people I know all of the time. Or being able to grab a teacher in the hallway and say "hey can you help me with this?" Or I even ate lunch with my teachers several times. That made it a lot easier for me to be in college to have that close-knit-ness of it. (page 40, Q9, para. 1)

The honors program was mentioned most often by participants in the Intuitive and Thinking focus groups, with several noting specific aspects of the program as making them comfortable. One Intuition participant said the program provided "the tools and ability to figure out who I was, maybe not figure out, but decide who I think I was. I always think back on honors as when I just began to want to be a better person" (page 37, Q9, para. 2). A Thinking group participant said the honors courses were the only classes where she "didn't feel insane," explaining:

> . . .the only comfort I felt was in the honors classes because I was more engaged, and I felt interested and excited to go to that class because I felt like I was actually learning something that made a difference somehow or that meant something. It felt relevant to my life on so many levels (page 8, Q9, para. 3)

Finally, another Intuitive woman explained the honors courses were so different than anything else she had experienced in school that, while it should have made her uncomfortable, the differences made her more relaxed and less anxious. She pinpointed the interactive engagement model of teaching the course in particular:

> It's not your typical lecture classroom or lab, where everything is structured. It was an open discussion, kind of like what we're having here. He guided it and kept it on track. But other than that, it helped each of us learn, first of all, about each other. But what I took out of it was that everybody has a different viewpoint or different thought or different emotion or spirituality, whatever you want to call it, and you get to learn that there are a lot of different things in the world . . . . So I think that was the biggest, the coolest thing about honors, and I couldn't wait to get to honors. Because it was that way every class [period], no matter what we were discussing. (page 37, Q9, para. 4)

Focus group interview question #10. *When you entered college, did you have a clear idea of your future career? Did your career plans become any clearer during college? Why or why not?*

Answers to this question were, in many ways, similar to those for Question 2, "*Did you know why you were coming to college when you first came? If so, how sure*

were you of that reason? If not, why did you come?" While the researcher sought answers in Question 2 concerning purpose and motivating factors, Question 10 sought to reveal the participant's specific career plans while a student, if any, and the influence of those plans on the student's college experience.

Performance focus groups. Almost half of the Top Performers indicated they did have specific career plans when they entered college as freshmen, as did one Moderate Performer. All of the Poor Performers said they did not. In total, most of the participants indicated they did not have a clear idea of their career path. For all of those without a clear idea, their reasons ranged from not giving the question much thought to a continuing struggle with what they wanted to do and where their interests and abilities would eventually lead them. The data here are gathered first by those who had a clear idea of their career path, those with an idea but which quickly changed, and then those who had no idea of their career path, all sorted by Performance category and accompanied by their reasons when given.

The perceived clarity of these three Top Performers' and one Moderate Performer's career plans can be heard in their responses, with one Top Performer stating she "always wanted to be a teacher since she was two or three years old" (page 34, Q10, para. 1), one Moderate Performer saying she "took an EMT (Emergency Medical Technician) class in high school and fell in love with it" (page 40, Q10, para. 2), one Top Performing senior biochemistry major relating he had "always known that [he] had wanted to go into the sciences " (page 73, Q10, para. 4), and another, a commercial banker today, equally as sure, recalling that, "I always felt I enjoyed the business world, so I was pretty confident about that career" (page 73, Q10, para. 3). While there were

other Top and Moderate Performers who had some idea about their career path, none of them said their path was very clear and all of them ended up changing course as freshmen or sophomores.

Those respondents who had some career plan going into college but whose plans quickly changed included some Top Performers, most of the Moderate Performers, and two Poor Performers. One Top Performer who is working on her bachelor's degree said, "I wanted to go into pharmacy when I first went to college, and that quickly changed because I realized how many different subjects I loved and wanted to actually go into" (page 73, Q10, para. 1). Another Top Performer, now a graduate student in history, related how she still struggles with this question:

> I knew I wanted to be in the humanities, and knew that's where I wanted to go. But at this point, I should be knowing what I want to do, and I have no idea. And people ask you every day the closer you get to having a graduate degree, they're, like, "Do you know what you're going to do?" and I'm like, "no." And I have seven different options, and this is my narrowing. I think the further you get the more options they give you, so it gets more and more confusing about what I'm going to do. (page 73, Q10, para. 5)

Yet another one simply answered, "It became clearer, yes; I realized I wasn't going to become an actor" (page 8, Q10, para. 4).

A Moderate Performer said he knew going into college what he wanted to do, and, he continued, "I briefly flirted with doing it but now I'm not doing it. And I tried a few things in between" (page 73, Q10, para. 7). Yet another Moderate Performer

responded, "I did . . . But it became extremely muddy" (page 50, Q10, para. 1). One Top Performer said, "I've changed what I wanted to do so many times," but when he started out he wanted to get a business degree and become an entrepreneur and "own a bunch of businesses . . . . But then I decided that was a pretty dry outlook on life." He continued:

> I guess what I always wanted to do was be a writer, although I've never written anything except Facebook posts. But I've always been attracted to writing and communicating. So, I'm going to the University of Arkansas, and I'm in the journalism/PR degree, and that's something I get excited about. (page 8, Q10, para. 2)

The two Poor Performers who said they had an idea of what they wanted to do but then quickly changed away from that idea also said they were still in pursuit of what exactly they wanted to do. Both women were still taking college courses but on a part-time basis. One of them said, "Sometimes I feel like I know what I exactly want to do and then sometimes it's, 'Is that really what I want or should I do something else? Should I do something riskier?' So I'm all over the place" (page 30, Q10, para. 4). The other woman said her initial career idea was based off something she "found interesting" and that paid well, adding "And then I realized I do not want to do that for the rest of my life. I wanted to do journalism and stuff I consider fun like teaching small children. Well, not *small* children; they're annoying" (page 50, Q10, para. 2).

Finally, there were respondents from all three of the Performance groups who said they had no career plans when the entered college. One Top Performer said, "No, I don't think I particularly had a thought in mind. I'm a dabbler, being really in to things and then being burned out by them and running away from them as fast as I can" (page 30,

Q10, para. 3). Another Top Performer now working on his bachelor's degree said when he entered college he had no idea what he wanted to do as a career although he often told people that he did:

> I would say things that I thought I was interested in just so I had an answer when people asked me what I wanted to do. But as far as what I wanted to spend my life doing as a job, I could never commit to anything like that. I'm still kind of fuzzy on that, but college has definitely helped me realize what I'm passionate about and what it is I want to do. (page 30, Q10, para. 5)

One Moderate Performer's response expressed the frustration many of the focus group participants had with this important decision:

> I don't even care anymore. I don't know what I want to do. I don't feel passionate about anything. I am just kind of going through the motions. I've kind of been stuck on Physical Therapy. I might as well get paid well if I'm going to be miserable anyway. (pages 50-51, Q10, para. 5, 1).

Another Poor Performer pinpointed her problem, saying, "My problem is that I am interested in practically everything. So, I can't really choose something. One week I'll be really into one thing and then another thing. People try to recruit me into different things all the time" (page 51, Q10, para. 3).

Among the Poor Performers, the responses were often short with little explanation. For example, one respondent said, "I didn't know what I wanted to do when I went in, and college didn't really help me figure that out either" (page 73, Q10, para. 8), and one participant succinctly answered the three parts of the interview question with,

"Mine is really simple: My answers are no, no, and I still don't know" (page 73, Q10, para. 2).

Dominant typology focus groups. While responses from participants across the six non-environmental typology focus groups ranged from the "very sure" to the "I had no idea and still have no idea," statements made by the Feeling and Perceiving respondents clearly reflected a seemingly constant struggle with the question.

One indication of this struggle was a dissimilar array of possible career choices from the same individual at the same moment in time. For example, one Feeling participant said upon entering college she was "really split" about this decision, adding:

> It's funny, I was thinking about going into occupational therapy, music, and law enforcement; I was all over the place. And I really didn't know what I wanted to do, because I really enjoyed all three of those things and the experiences I had with them. (page 19, Q10, para. 2)

Another Feeling woman said she, too, did not have a clear idea of what she wanted to do, and, she continued:

> There are so many things that interest me, it's like really hard to pinpoint one thing I want to do with the rest of my life. I'm still struggling. I have learned what I like and dislike. But as far as a specific career path, no. (page 60, Q10, para. 4).

A Perceiving participant, now a junior at her transfer institution, said her experience in college has helped her narrow her options, but she was still not sure:

> You do start to develop the idea that "I like history a lot more than I like biology." So that sort of thing. And you get a lot more in depth, so it's a

> lot easier to figure exactly what interests you. But when I entered college, I had no idea. I'm not for sure now -- I'm in my junior year -- about the path I'm on. I'm not sure, but it is something I'm interested in a lot. You definitely develop it as you go along. (page 61, Q10, para. 1)

Similarly, a man with a dominant Perceiving typology who, while having transferred to a university, has dropped out of his studies for a year, said he continues to search for an academic subject/career area that he enjoys:

> As you progress, you realize there's more to this [going to college] than an intermediate step as I thought, so I might actually ought to pursue something I just genuinely enjoy rather than what it might pay. In the end, you kind of want what you enjoy to pay. You're never going to get there if you don't explore that. I had the idea it was going to lead me to a job, but as far as like the clarity, it was more that this doesn't have to be a means to an end, but it may be more like it leads to a master's in the field I like. (page 61, Q10, para. 3)

Other typology group participants echoed this same struggle to find a career path, but they were not as concentrated in their respective typologies as those in the Feeling and Perceiving groups. Two responses of note, however, mentioned the influence of the honors program on the process they used in their search for a career path. For example, one woman with a dominant Thinking typology stated she "didn't have a clue" during her first semester and was "leaning toward teaching middle school" during her second semester. She continued:

> But half way through the process, things changed, because I started thinking things through and seeing things that didn't really appeal to me anymore. And then, through the honors program actually, biology with honors, I had to teach my biology teacher's class for a day. And that's when I figured out I wanted to teach college level courses, but business courses. (page 40, Q10, para. 2)

Likewise, a man with Intuition typology preference said his experience in honors prompted him to switch career paths from agriculture to the humanities:

> When I came into college I wanted to teach agriculture, for no other reason than I had fun in FFA when I was in high school and that was where I fit in. But after honors, especially, I realized that I didn't even really like agriculture. I realized what I really loved was literature and the world of ideas and things like that. So I changed my mind and decided to teach high school English instead of agriculture. And after I decided to teach English that is what I wanted to do with the rest of my life. And there was no question of doing anything else. (page 40, Q10, para. 1)

Other participants had a variety of response types, from those who simply said, "Yeah, right!" or "No" that they did not have a clear idea of their future career, to those who did but quickly changed their decision to something else or to nothing at all. As one Sensing participant said, "I actually did have an idea. In my mind I went, 'this is what I'm going to do and this is what I'm going to go to college for.' And in my first semester, it all completely changed" (page 60, Q10, para. 3).

Focus group interview question #11. *Describe your expectations about grades in college. What was it like to receive your first "bad grade"?*

Performance focus groups. Responses to this question varied widely across the three Performance groups, with no categorized response emerging in one or more particular group. Across the spectrum, however, the responses generally reflected either the participants' (as honors students) great concern with grades or, in some cases, their attempt to find a more realistic view about grades.

Responses indicating a participant's high level of concern about grades included those from each performance category. For example, one Moderate Performer said she was always expected to get good grades in high school:

> . . . because I was smart, and then I got here, and in my first semester I got a C in my math class and I was really dramatic about it. I thought I was smart . . . . Then my imaginary 4.0 was gone and then my life, too, and it was like I wasn't going to be able to do anything ever. (page 9, Q11, para. 3)

A participant in the Poor Performer group expressed her surprise at a bad grade but also her difficulty in knowing how it came about:

> There was a lot of stuff going on in my life to affect my grades. English has always been something I did well at, and I always made As, but I remember getting my paper back and got a C, like, what? I was so confused. And I actually got a couple of Ds in that class; I finished out with a C. I was still very disappointed because it's English, something I've always been all right at. I guess the reaction was, "I don't know how this happened. I don't know how this happened." (page 20, Q11, para. 2)

Whether held by parents, peers or the students themselves, the expectation of getting good grades was often mentioned in the participant responses. One Top Performer said:

> I expect out of myself As and Bs. Like a C for me is, “what are you doing?” There was no possible way for me to get [a grade] up and, it was a 78, it was stupid. I wanted to cut my throat. That's what I felt about my grade. I couldn't even look at it. (page 31, Q11, para. 2)

Another Top Performer mentioned her parents' expectations and the perceived consequences for getting a C on a paper, saying:

> I almost had a panic attack. I was so afraid my family was going to disown me. When I was in high school, if I got an A-minus I was on probation. If I got a B I was grounded and they took my keys. So, I guess it was kind of drilled into my head, 'you have to have good grades.' So, I like freaked out. I burned that paper. (page 51, Q11, para. 3)

One Moderate Performer who called herself an overachiever spoke of the "mind games" she played with grades, attempting to keep a balanced approach toward grades while constantly dealing with her need to make top grades. She explained:

> For me, [a bad grade] would be where I felt like I could have gotten a better grade but for some reason I didn't. And that always gives me a sick feeling in my stomach. I think that was because my first college class was in high school in chemistry, college chemistry, and I ended up getting a C in it. So I started college as a loser. I always have that behind me, so I'm always trying to, it's a sick overachiever mentality; it's like if you're not

> getting an A, I hate it . . . . My experience is awful with grades. I hate them . . . . It's so stupid. And I get good grades! And there's an exclamation point behind that. I hate them; I really do hate them. I think it's designed to make you insane, and it's worked on me. (page 31, Q11, para. 4)

One Top Performer spoke about how he had attempted over the course of his college career to maintain a realistic view about his grades. Instead of focusing on getting all As, the man wore, as he said, the fact that he was "a B student as a trophy." He continued: "I'm relaxed, I don't take my grades too seriously, but I'm making it above average. But there's a part of me that goes, 'if you spent an hour a night studying you'd probably get that A'" (page 9, Q11, para. 1). A Poor Performer said he stopped worrying about grades at some point, adding, "As long as I learn something and the class is relevant, the grade is whatever. It's just a number. I don't let that sort of thing define me" (page 74, Q11, para. 4)

Finally, a couple Performance group participants, both Top Performers, spoke of their actions after receiving a bad grade. For example, one man immediately questioned his time management skills after getting his first bad grade in college. He stated:

> I realized that, man, I have to sit down and buckle down. I had to wake up. I mean when you go to school for 12-13 years and you're like, 'Hey, I don't have to do anything to pass,' then you have to switch your habits all of sudden. That's what it was like. It's been a life-changer. (page 31, Q11, para. 1)

Dominant typology focus groups. Responses from the Dominant Typology participants also varied across the spectrum of the six non-environmental typologies, with

some group members expressing their great anxiety over grades while others talked about how they handled bad grades when they did come. Two typology groups, however, the Feeling group and the Thinking group had more participants speak of their near obsession over grades than respondents in the other groups.

Among the seven Feeling participants, five mentioned the pressure they felt to maintain high grades if not straight As. One woman with a dominant Feeling typology described her first bad grade experience in college as:

> Devastating. Absolutely, devastating. I felt like I failed. But I learned eventually that, it's still a bit of a failure, but it's a reason to push harder to be more successful. Expectations of grades, I do get a little bit apprehensive about it. (page 41, Q11, para. 1)

One group member responded, "It was horrible," but she, too, learned from the experience. "I freaked out, but it made me wake up. You have to set aside a time to study. You just can't wing it," (page 2, Q11, para. 1). Another Feeling group participant said she cried after her first bad grade. "No really, I cried. I think the first bad grade I received was in my last semester. I took English 210, and on my first writing assignment I got a C on it. And that broke me." But the experience motivated her in the end. She said:

> I took what was supposed to be the hardest English instructor on this campus, and she said at the beginning of class that 'you won't get an A in this class,' so I was bound and determined to get an A, and I did. (page 19, Q11, para. 1)

Another majority of like-themed responses came from the Thinking typology group as well. Instead of sadness, the threat of a bad grade brought anger to this

Thinking participant, who is still in college and pursuing his bachelor's degree at his transfer institution. He explained his reaction when a bad grade threatened and, at times, still threatens:

> I've always got good grades, and so I expect myself to get good grades. Like, I've never had a B in my life. But I know it's probably coming up sometime, and I'm not ready for it. Like I'm crazy when it comes to that because I feel like a failure if I get anything less than an A. I will get very angry, but my personality is, like, I'll get an A and if (a bad grade) starts getting closer and closer then that becomes all that really matters. (age 81, Q11, para. 4).

Another Thinking group member became upset at the instructor, not himself, for a grade he felt was not his fault. Nearly 10 years after the incident, the man said:

> I didn't get too many bad grades, but one I was very upset about was in chemistry or physics, maybe astronomy . . . . It was not clear, the objectives were not clear, and I ended up with a B, and it was the only B I received in the first few years of college. (page 74, Q11, para. 3)

Frustration over grades peaked in a moment of "horror" for this man with a dominant Thinking typology. The experience came when he earned a bad grade in a remedial math course, a course he did not think he needed because he had been accepted into the honors program. He added:

> I have always hated math; it's always been a challenge for me. And there was one time I just had to keep going again and again and again [to complete his math

> modules]. I don't get this. You just have this moment of horror. It's really stressful. (page 51, Q11, para. 2)

Focus group interview question #12. *Looking back, did you ever feel a part of or engaged in your college experience? If so, what exactly made you feel engaged? What reasons would you give for not feeling a part or engaged?*

***Performance focus groups*.** Responses from the Performance participants fell in two different topic categories: Those who felt engaged because of the learning environment and those who did not feel engaged. Only a couple of Performance group members spoke of activities and the social setting outside of the classroom as making them feel engaged. Generally, those who felt engaged because of their academic engagement or their social interaction were from the Top and Moderate Performers. Those who did not feel engaged by any means were primarily Poor Performers; however, there were exceptions in each of the three topic categories. As with some of the other interview questions, the influence of the Extroversion and Introversion environmental typologies was often heard in the responses.

Every participant who felt engaged because of the learning environment associated his or her level of engagement with a particular course, classroom environment, or instructor. Top Performers responded in a variety of ways, including one man who said, "between honors and my math classes, they got me the most engaged" (page 75, Q12, para. 2), another man who appreciated "those instructors who made me feel more engaged are those who encouraged you to form your own opinions" (page 10, Q12, para. 6), and a woman who agreed, saying "Yeah, it's fun when a teacher argues

with you, gets you riled up, but doesn't just trample you. That's fun" (page 10, Q12, para. 7).

Some of the more thoughtful responses came from Top Performers and two of the Moderate Performers. One Top Performer said her feeling of overall engagement in college came from specific courses, namely those taught by a particular instructor. She said:

> I felt this weird split when I was first in college. It was like honors and non-honors, more like courses [this instructor] taught and didn't teach. Something about his approach, and I appreciated him as a teacher. In other classes I just didn't feel as engaged. (page 10, Q12, para. 2)

A fellow group member echoed her response, indicating, in her view, that whether or not she was engaged depended on the instructor. She stated, "Whether or not I was engaged was dependent on them. There were a couple of them that made me feel engaged and passionate. It was their approach that made me feel like I was learning" (page 10, Q12, para. 4).

A Moderate Performer, however, voiced a differing view of the instructor and student's role in creating an engaging environment:

> I think being engaged is up to me. It's whether I cared or not. If I'm engaged in a class it's because I liked that class. If not, it's because I didn't care what was being taught. Just get out of there. Just get it done. Do the bare minimum. (page 32, Q12, para. 3)

A fellow Moderate Performer group member indicated that when she felt engaged during her college experience it was solely because of the classroom setting and by a course that demanded something of her. She continued:

> As a student, I've always felt like a piece of crap on the outside; I've never felt a part of anything going to college. I don't know what people do if you lived on campus, but the classroom is it for me. If it didn't happen there, then, no. (page 32, Q12, para. 4)

One Top Performer had a similar response, noting how much his classes meant to him:

> College felt like someone turned on a faucet with all of the things I could learn. I just started soaking it in. I loved doing that so much, that was what engaged me. If you looked at me before college and, like at this point where I am now, I'm a completely different person. Maybe not completely, but I'm pretty freaking different. It was those first two years of college that I sat down and I was absorbing everything. It's what changed so much of me about when it came to what I wanted to do with my career; it was because of the high volume of knowledge that I was getting and the different ways of thinking. It was like honors, some of the most profound classes I took in college, that really blew my mind and made me want to go even further into that absorption. (pages 74-75, Q12, paras. 3, 1)

A few respondents said the social environment outside of the classroom made them feel engaged, including one Top Performer who said:

> Being a student ambassador was pretty important in that. You kind of feel like you have the pulse of the campus a little bit. You've got the scoop. You get to feel pretty engaged when you're bringing a new concept in and breaking new ground. (page 74, Q12, para. 1)

One Moderate Performer agreed that her involvement out of the classroom was important, noting in particular her participation in the campus anime club and the new student welcome week steering committee. But it was through her experience as a student tutor by which she felt most engaged and connected with others. She stated:

> I really liked having the tutoring job, because I liked helping people get "it." I really loved seeing people understand a concept after awhile, and people would see me on campus and wave, and I would be happy that they were doing better, and just making new friends on campus. (page 75, Q12, para. 2)

Those who did not feel engaged were all Poor Performers with one exception, one Moderate Performer. The Moderate Performer said that, during college, she "always felt like I was on the outside looking in" (page 2, Q12, para. 1). Among the Poor Performers, one of them said, "Honestly, I didn't really care if I was engaged or not" (page 20, Q12, para. 6). One woman responded specifically about her honors experience, saying, "I hated everything we did in there. I hated what we talked about; I hated what we read. Everyone else just loved it, but I couldn't stand it," (page 52, Q12, para. 4).

Finally, another respondent in the Poor Performer group primarily blamed her instructors for her personal lack of engagement. She said:

> I know I could have made it a better personal experience by having a positive outlook on things. But, on the other hand, you know, I do wish, I genuinely wish, some of my teachers had been more engaged in taking what I was doing more seriously. Like, I don't want to feel like I'm just here so you can earn your paycheck. I want to feel like my time is valuable to you. Because I will respect your lecture, I will respect your work, and even if I desire a more creative assignment or whatever, I will do what you ask me as long as I know that you care. Because that's what we want, we want to be engaged, we want to leave changed . . . . I hope every instructor can become more excited about what they're teaching so I can become excited about what they're teaching, too. (pages 10-11, Q13, para. 2, 1)

Dominant typology focus groups. As with some previous questions, the participants' individual preference toward Extroversion or Introversion preferences influenced many of their responses. Extraverts, the minority in each of the focus groups, spoke of the connections they made off-campus more than the Introverts, who typically focused on the engagement they felt while in the classroom. A few, however, did not feel engaged at all during their college experience.

Sorting responses according to the six non-environmental typologies revealed only one more common theme, that the participants with an Intuition or Perceiving dominant typology who were also Introverts indicated more than others about how, over time, they overcame their natural tendency to focus inward. When they were able to do

that, they said, they then became more engaged in the totality of their college experience and not just in the subject matter of their courses.

One of the Intuition respondents explained his path to engagement, which started after a first semester during which, he said, "I felt I didn't fit in here." He continued:

> But then I realized it was me, it was not how I thought other people were perceiving me. So I started getting engaged, with some help from staff on campus, and I got to a point of getting really involved with SGA. I got involved with numerous other student organizations. And it actually made my college experience 10 times better and made me more successful. Had I not taken the step to get out of my little box and stretch out and learn new things like I was doing that first semester, I wouldn't have had as much success. (page 41, Q12, para. 1)

Two other participants in the Intuition group agreed, both saying their involvement as a course peer leader allowed them to meet new people and to further their interests in their coursework at the same time. One woman said:

> [I] peer-led for four different honors classes and two different IDS [freshmen success] classes. I did that for free, but I really loved it. I liked teaching the kids things, especially honors. Watching the ah-ha moments, because there was one about every two seconds. (page 41, Q12, para. 2)

The other woman followed, saying, "Yeah, peer leading was pretty great. I guess I felt engaged in my college experience just because it was my entire life at the time" (page 42, Q12, para. 1).

Perceiving participants also spoke of breaking out of their "box" to become more engaged. One man said, given the pressures he felt about going to college along with his hesitancy about meeting new people and not having a clear career path, "You start questioning, like, 'why actually am I doing this again?' You realize there's more to it than this, there are people you start interacting with that become more important to you, and you get closer" (page 62, Q12, para. 1). A fellow group member echoed his comments, stating, "It was definitely hard for me to feel engaged because I didn't have many ties on campus, and I didn't have a clear direction of what I wanted to do; it was just something I was doing" (page 61, Q12, para. 1). Later in the session she said that her first feeling of being engaged was when she "made a connection with a person in a class," adding, "that's when you break out and form those study groups [out of class]" (page 61, Q12, para. 3).

Finally, while not an Intuition or Perceiving participant, one man who was a participant in the Thinking focus group and very much an Introvert explained his transition in college:

> I lived off campus for the first year, so my expectation was to just go to work, to school and home. Because I didn't have a clear direction about what I wanted to get out of those first two years, like how does this point me to my career, so that can be demoralizing the first couple of semesters . . . . I became more engaged when I once freed myself of it needing to be a means to an end. If I could just treat it for what it was, whether that was engaging in my philosophy classes or just with my fellow students. There was more to get out of it than I anticipated. When I was disappointed [in the activity] then it was disengaging. When I found

there was more to it, it gave me my second wind, if you will. (page 62, Q12, para. 2)

Focus group interview question #13. *What else would you like to say?*

The few answers to this question were incorporated, if and where appropriate, in the data presented for the other questions.

Summary

The quantitative portion of this study sought to address Research Questions 1 and 2, a total population of 244 honors students, 104 males and 140 females, was considered. Using an ANOVA for both research questions, the null hypotheses were not rejected, as the data indicated no significant difference existed between the sample's individually identified dominant MBTI personality type and, first, the group's average retention in college (RQ1) and, secondly, its average level of success in college (RQ2). Likewise, after extending the study to include the student's identified dominant and auxiliary MBTI typologies, again, the null hypotheses were not rejected based on the evidence that no statistically significant variance was found in the data between the typologies and the students' retention and success in college.

In the qualitative portion, 68 former members of the honors program attended one of 11 focus group interviews held, with 25 students participating in the performance group interviews and 43 in the six typology groups. Five interview sessions were tied to Research Question 3, the Top, Moderate, and Poor Performance groupings, with the remaining six interviews focused on Research Question 4 and the six non-environmental MBTI typologies (excludes Extroversion and Introversion) of Sensing, Intuition, Thinking, Feeling, Judging and Perceiving.

From the student responses generated by these focus group interviews, five major themes regardless of performance group or MBTI typology emerged in how these two-year college honors students retrospectively saw their college-era experiences. Overall, the students felt they were academically prepared for the rigor of college, but for some it was not entirely what they had expected. Some struggled more with the learning environment than they did with the social environment; for others, the issues were switched. Most of them, regardless of grouping, wrestled with the personal, cultural, and intellectual expectations they felt placed upon them as honors-level students. In terms of persistence, the students indicated being influenced by factors ranging from the external forces in their lives at the time to the internal desires that were aligned with or opposed to their college goals. Finally, their level of having developed a well-defined passion or purpose often meant the difference between success, stagnation/mediocrity, and failure, at least in terms of meeting their college and career aspirations.

This evidence subsequently provided the information and data for the conclusions and recommendations presented in Chapter Five, all based on the categorized evidence in relation to the MBTI data and the psychosocial student development theories at the foundation of the entire study (Creswell & Clark, 2011; Krueger & Casey, 2014; Silverman, 2013; Yin, 2011). Implications for future practice and recommendations for further research will also be discussed.

Chapter Five: Conclusions and Recommendations

The purpose of this study was to examine how academic leaders coordinating a comprehensive collegiate honors program might be able to use psychosocial student development theory and research in the use of personality types to support college honors students whose attitudes and behaviors unique to them as honors-level students put them at risk of losing the collegiate and career opportunities ahead of them.

To achieve this purpose, four research questions have guided the researcher in this mixed methods study:

1. What difference, if any, exists between MBTI personality typology and retention rates in college?

2. What difference, if any, exists between MBTI personality typology and success in college, as determined by a 3.5 GPA or higher attainment level at the completion of a student's degree program, upon transfer, or upon withdrawal?

3. From a sample of students who were retained/not retained in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors and/or attitudes associated with honors students did the students report experiencing?

4. From a sample of students who succeeded/did not succeed in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors/attitudes associated with honors students did the students report experiencing?

The researcher used quantitative methodology to answer Research Questions 1 and 2, while the qualitative methodology of focus group interviews generated the data for Research Questions 3 and 4.

For the quantitative portion, the researcher employed a one-way ANOVA (Bluman, 2010) to consider the retention and academic success data drawn from the institution's student information management system. The ANOVA was selected as the most appropriate method to analyze the data because it examines equality of sample means for a single quantitative outcome variable and a categorical explanatory variable with more than two levels (Bluman, 2010). The data came from the population of 244 traditional-age honors program students enrolled in the two-year public institution from 2007-2012. Each of these students had completed the MBTI personality typology assessment instrument within the first two months of their first semester in college.

The researcher utilized focus group interviews to generate the data necessary for the qualitative portion of the study. Participants in the focus group sessions were all part of the sample identified in the quantitative study. After being given information about the focus group interviews and then upon their acceptance of the invitation to participate, the now former honors students were coded according to their academic performance while at the institution and according to their dominant (strongest) MBTI typology. There were then selected by a first-to-respond basis to participate in either one of the three performance group sessions (Top Performers, Moderate Performers, or Poor Performers) or in one of the six non-environmental MBTI typology sessions (Sensing, Intuition, Thinking, Feeling, Judging or Perceiving). A total of 11 focus group interviews were conducted, as two additional sessions were needed to provide additional data for

two of the three performance groups. A total of 68 former students participated, 25 in the performance group interviews and 43 in the six typology group sessions.

The analysis provided clear evidence of any and all interpretations of the data while making such interpretations open to anyone. Evidence was based on a sufficient amount of data provided by the focus groups. After first coding the data, dividing the response data into similar responses, labeling each grouping, the researcher then grouped the codes by thematic similarities (Creswell & Clark, 2011); however, a more detailed "Five-Phased Cycle" approach suggested by Yin (2011) was employed later by compiling the data, then dissembling them, followed by reassembling and arraying, interpreting, and concluding (p. 177). From these conclusions, the themes noted in the qualitative findings emerged.

Findings

Quantitative. The following are the findings from the quantitative portion of this mixed methods study.

Research question 1. What difference, if any, exists between MBTI personality typology and retention rates in college?

From the one-way ANOVA of the data (Bluman, 2010), no significant difference was found between the individually identified dominant MBTI personality types and the group's average retention in college. Because of this, the analysis, which said there would be no significant difference at the probability level of 0.05, failed to reject the null hypothesis, and the alternative hypothesis, which conjectured there would be a significant difference at that level, was not supported.

After finding no significant difference between the individually identified dominant MBTI typology and its average retention rate (RQ1), the researcher extended the quantitative analysis to see if using a combination of typologies, the individual's dominant and auxiliary types, would statistically show a significant difference. As noted in McCaulley (2000), an individual must develop both the dominant and auxiliary typologies to create a balanced personality and to deal more comfortably with the external and internal events of his or her life. But again, after extending the study to include the student's identified dominant and auxiliary MBTI typologies and after using the ANOVA to analyze the data (Bluman, 2010), the analysis failed to reject the null hypothesis based on the evidence that no statistically significant correlation was found in the data between the typologies and the student's retention.

Research question 2. What difference, if any, exists between MBTI personality typology and success in college, as determined by a 3.5 GPA or higher attainment level at the completion of a student's degree program, upon transfer, or upon withdrawal?

Using the one-way ANOVA (Bluman, 2010), the analysis of the data found no significant difference between the population's individually identified dominant MBTI personality types and the group's academic success as determined by its overall average GPA in college. Because of this, the null hypothesis, which said there would be no significant difference at the probability level of 0.05, was not rejected, and the alternative hypothesis, which conjectured there would be a significant difference at that level, was not supported (Bluman, 2010).

After finding no significant difference between the population's individually identified dominant MBTI typology and its average academic success or average GPA

(RQ2), the researcher once more extended the quantitative analysis to see if using a combination of typologies, the individual's dominant and auxiliary types, would statistically show a significant difference. But again, after extending the study to include the student's identified dominant and auxiliary MBTI typologies and after using the ANOVA to analyze the data (Bluman, 2010), the null hypothesis was not rejected based on the evidence that no statistically significant correlation was found in the data between the typologies and the student's success in college as measured by GPA.

Qualitative. The following summarizes the findings from the qualitative portion of the mixed methods study as they inextricably pertain to and provide answers for Research Question 3, "From a sample of students who were retained/not retained in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors and/or attitudes associated with honors students did the students report experiencing?" and for Research Question 4, "From a sample of students who succeeded/did not succeed in the study's population, grouped according to their academic performance and their dominant MBTI typology, what student behaviors/attitudes associated with honors students did the students report experiencing?"

Emergent themes. Five overall themes coming from the coding and labeling of the focus group data emerged (Creswell & Clark, p. 208, 2011), each separate and distinctive yet intrinsic to the understanding and functioning nature of the other four. Each theme provides a generalized view of the behaviors and attitudes of the college honors students studied; however, differences were observed at times between participant responses among the varying performance groups and among the six different dominant MBTI typology groups. The five emergent themes were:

- *Academic preparation*. Nearly all respondents felt they were academically prepared for the rigor of college, but for some it was not entirely what they had expected.
- *Learning and social environments*. Some struggled more with the learning environment than they did with the social environment; for others, the issues were switched.
- *Expectations as honors students*. Most of the students wrestled with the personal, cultural, and intellectual expectations they felt were placed upon them as honors-level students.
- *External and internal challenges*. In terms of persistence, the students indicated being influenced by factors ranging from the external forces in their lives at the time to the internal desires that were aligned with or opposed to their college goals.
- *Passion and purpose development*. Their level of having developed a well-defined passion or purpose often meant the difference between success, stagnation/mediocrity, and failure, at least in terms of meeting their college and career aspirations.

Academic preparation. Nearly all respondents felt they were academically prepared for the rigor of college, but for some it was not entirely what they had expected.

Responses to interview questions 1, 4, 5, 6 and 12 provided most of the evidence toward generating this theme. Respondents in the performance groups typically felt prepared academically for their first semester in college, with the Top Performers most often noting the merits of their experiences associated with gifted student status, e.g.,

advanced placement, dual credit and honors courses, etc. Top Performers also expected and wanted challenges, finding motivation in the struggle. They, too, wanted to be engaged by instructors in a one-on-one manner.

Moderate and Poor Performers felt they were prepared to enter college but soon realized they were not. Some felt they were poorly prepared for college-level studies and blamed their high school preparation, whether in the form of the school itself or merely the quality of their own work or lack thereof. Respondents in these groups liked a challenge and engagement in class but, for most, it needed to be on their own terms.

Among the MBTI typology groups, respondents with dominant typologies of Sensing, Intuition and Thinking saw themselves as being academically prepared, but nearly all felt their expectations were unrealistic concerning how they would ultimately perform. Those with Judging or Perceiving typologies generally felt the most unprepared, with some noting a near obsession with excellence or their anxieties associated with being able to "do it all" and to do it well.

Assignments given in school with a primary or secondary goal of self-reflection or identity-building were most engaging to those with a dominant typology of Intuition, Feeling, or Perceiving. Most Sensing and Judging respondents, however, were challenged and unappreciative of these type of learning activities; most were unable to connect the assignment with the a larger concept or even the learning objectives of the course. Sensing and Judging respondents tended to have greater criticism of instructor foibles and/or course structure and rigor. Respondents in the Sensing group, were more likely to struggle with handling academic setbacks.

Intuition and Perceiving typologies spoke often of their hesitancy toward but their increasing enjoyment of courses and instructors that engaged them academically and personally in and out of class. Students with a dominant Thinking typology mentioned specific examples of being engaged in a learning experience, but for most students it was about the subject material alone.

Learning and social environments. Some struggled more with the learning environment than they did with the social environment; for others, the issues were switched.

Interview questions 1, 4, 7, 8 and 9 provided most of the evidence for this theme. Nearly all of the former honors students in the Performance group interviews said they preferred the interactive classroom setting common to their honors program to those more dependent on lecture. Top Performers responded in ways that indicated better adaptation to all learning environments, while Poor Performers and some Moderate Performers demonstrated varying levels of frustration with environments not to their liking.

Within the classroom, Top Performers and most all Moderate Performers noted their appreciation for the ideas of others, with some expressing such interaction and engagement with their classmates as among the most positive of their learning experiences. Poor Performers varied here; some felt the interaction with others was a distraction to their own academic pursuits, with a handful even indicating that their learning was hindered by the "lessor" intellectual abilities of others. Other Poor Performers enjoyed the interaction and the "freedom" to express their own opinions and thoughts with others.

Not unexpectedly, Top Performers felt comfortable within the college learning environment and, for the most part, their new social setting surrounding that learning environment. With only a few exceptions, nearly all among the Performance groupings saw the social environment as a greater hurdle than the learning environment, and one that often affected their academic pursuits. Many of them struggled with their change of position in their new social setting, finding their academic prowess that brought significance in high school had to be either re-earned or re-oriented in the new environment among others having to do the same.

Similar responses came from most of the dominant MBTI typologies. Interview participants with a Sensing, Intuition, or Thinking typology adapted well to the collegiate learning environment, even though most agreed their preference was for the open-discussion, interactive classroom particularly present in their honors courses. Judging and some Perceiving respondents, however, were not as fond of the interactive classroom as their peers, with some indicating annoyance at the requirement to discuss the subject material using their own ideas and reacting to those of their classmates.

While there were definite differences between those with a typology (dominant or otherwise) of Extroversion or Introversion, those with the Feeling and Intuition typologies seemed the most affected by the social environment. Many of these respondents spoke of "never belonging" or that they struggled constantly with the social environment that enveloped their academic life; however, some resented attempts to "force" them into social interaction. Thinking and Judging types often indicated discomfort with the social environment, too, but instead of shyness as being the primary

cause, their responses indicated frustration with their classmates and even instructors for a perceived lacked a seriousness or ability.

Expectations as honors students. Most of the students wrestled with the personal, cultural, and intellectual expectations they felt were placed upon them as honors-level students.

The development of this theme came primarily from responses to interview questions 2, 3, 8, 10 and 11. Among the three Performance groups, nearly all expressed the influence of parental, social, and cultural expectations on their attitude toward college and their performance in college. While some students expressed these expectations had positive outcomes, others felt they only added to other frustrations and/or pressures, such as those stressors associated with financial stress, relationships, family commitments, and coursework.

Parental or family expectations were among the most mentioned by the Performance group participants, regardless of grouping. Some felt the expectations of family helped to motivate and to keep them on track; others pointed out that their family's expectations actually caused them to behave in ways in opposition to what was expected, including dropping out all together. Participants in the all the groups, especially among the Top Performers, repeatedly mentioned the social and/or cultural expectations that said, as honors students, they *should* go to college. Respondents in the Moderate and Poor Performer groups most often indicated this expectation in association with their personal financial needs or goals.

Many Top Performers also mentioned the expectation they needed "to live up" to the honors student status, with some indicating this expectation, social, familial, or

personal, caused more anxiety than any other in their life at the time. Retrospectively, the respondents wished they had been able to enjoy the learning experiences presented to them more instead of worrying about "getting all As" or maintaining the honors image.

Among the dominant MBTI typology responses, issues associated with the respondents' expectations of personal success in college were clearly evident. As with the Performance groups, the typology participants often mentioned family expectations, especially those in the Feeling and Intuition typologies. While most felt their familial expectations in a way that would expand their opportunities, some, mostly first-generation students, said their families feared how college might change them. For these students, their family's expectations presented a hindrance but, in many cases, it also motivated the student toward success despite the hurdle.

Thinking and Judging participants most often expressed the expectation, or its associated frustrations when challenged, that they would be able to maintain their honors-level status throughout college. A preoccupation with getting good grades was most often mentioned by those with a Thinking or Feeling typology.

Most notably, participants in each of the typology groups indicated how their own expectations about their intellectual abilities and their previous study behaviors often proved unrealistic as they tackled the rigors of the college classroom. In particular, those with a Thinking, Intuitive or Judging dominant typology expressed how they expected to be able to "handle it all" and how this expectation worked in both positively and negatively ways. When faced with experiences proving their expectations to be unrealistic, however, many within these three typologies were ready to quit college all

together. For the most part, Sensing, Feeling, and Perceiving respondents did not express this level of frustration.

External and internal challenges. In terms of persistence, the students indicated being influenced by factors ranging from the external forces in their lives at the time to the internal desires that were aligned with or opposed to their college goals.

Responses to interview questions 2, 3, 4, 10 and 12 provided most of the evidence toward generating this theme. Generally, respondents from each of the three Performance groups noted in some way various external and internal challenges they faced while going to college. As might be expected, Top Performers overcame those challenges or, at least, met them with a will to persist despite their influences. Moderate and Poor Performers generally spoke of their challenges as well as their success or failure in meeting them more often than Top Performers. Poor Performers, those not retained in college, often focused on specific challenges and the causes that contributed to their leaving college.

Among the challenges external to the student noted by the Performance groups, financial obstacles and concerns were most often mentioned. This included the need for the student to work while enrolled, sometimes as much as 40-50 hours per week. The challenge, as many of the former honors students said, was to not only stay in school while working but to do honors-level work as well. Top Performers were least likely to work as many hours as their Moderate and Poor Performer colleagues; yet, many worked several hours per week and maintained a high GPA while completing their degree. Poor Performers said they had to make a choice between working long hours to pay for their

tuition and living expenses and being able to focus on their coursework, honors-level or not.

The internal challenges faced by the Performance group respondents were at times directly tied to their external challenges, including finding the will or motivation to persist while working and going to school. Participants in each of the Performance groups said they experienced either a chronic lack of motivation or, for some, what they indicated was a crippling insufficiency to move through such obstacles and challenges. For a handful of respondents, all from the Moderate and Poor Performer groups, this lack of motivation when coupled with the expectations of family and peers for them to succeed led to anxiety attacks, depression, and eventually academic failure. For all, there was a clear relationship between their having a clear educational path and/or career goal and their desire to continue with college. For those without such clarity, they needed to rely on other motivating factors to maintain their persistence in college, such as their personal expectations or that of their family and society.

Respondents in each of the dominant MBTI typology groups indicated, like most in the performance groups, great concern over being able to balance time, finances, and maintaining grades at a level expected of an honors student. Family and social expectations exacerbated these internal challenges, often leading the student to leave their studies for a time (with some at the time of the study having not yet returned). External motivating factors, however, seemed to have least effect on those with dominant typologies of Sensing, Intuition and Judging, while those most susceptible were among the Feeling and Perceiving groups. From their responses, Intuition, Thinking and Perceiving typology participants expressed a greater internal desire or motivation to

persist through difficult times, while Feeling typology respondents indicated periods of a severe lack of desire or motivation over the course of their college experience.

Passion and purpose development. Their level of having developed a well-defined passion or purpose often meant the difference between success, stagnation/mediocrity, and failure, at least in terms of meeting their college and career aspirations.

Participant responses to interview questions 2, 3 and 10 provided most of the evidence for this emergent theme. A clear distinction could be seen in the responses from the three Performance group concerning this theme. Top Performers consistently indicated in retrospect that they had a clear or developing understanding of why they were attending college when they were freshmen. On the other hand, most Poor Performers described their struggle to understand their passions and to have a clear idea of their reasons for attending college. Moderate Performers varied, as might be expected. In general, the greater the student's clarity in understanding and articulating his or her passions as an individual and of his or her purposes in achieving those passions, the greater the individual's sense of motivation toward persisting in his or her academic studies. This seemed to be true even though the student may have changed his or her desired occupation and, thus, educational path toward a major at the baccalaureate degree level.

Such distinctions were also observed among the responses from participants in the MBTI typology group sessions. In general, respondents wrestled with the identification of their passions and purposes according to their identified typology. For instance, Feeling and Perceiving respondents said in retrospect that they either did not have a clear

reason for attending in college and they had struggled to find what they wanted to do in life. Feeling and Perceiving respondents along with students from the Sensing group, who indicated a higher likelihood to be stymied by academic setbacks, were more likely than the other typologies to consider of quitting college, as a whim of frustration or in reality. In actuality, a greater number of Feeling and Perceiving typology participants did not complete their two-year college degree within three years.

Sensing, Intuition, Thinking, and Judging types had, in general, a more detailed vision for their future, including how they were going to reach their goals. From those individuals participating in the focus groups, those of the Thinking and Judging typologies were also more likely to complete an associate degree within three years, yet they also indicated their desire to get a degree regardless of the subject matter.

Being passionate, or the failure to be so, was also mentioned by participants in explaining their engagement levels in class and in the social environment outside of the classroom. Respondents from every typology group indicated their need to find a reason to be in a course and nearly all respondents said they preferred the interactive classroom where they were active participants not mere spectators. General education courses often frustrated these participants, they said, because they could not "become passionate" about the subject matter unless it either challenged them intellectually or creatively, or they were able to link its objectives to their passions and purposes. In particular, respondents from the MBTI typologies of Feeling, Intuition and Perceiving expressed their applause for some courses for connecting to their passions or, in opposition, their disdain for others that failed in this respect. Yet, as noted above, Feeling and Perceiving respondents were

also more likely to struggle to find a reason for attending college and to know what they wanted to do beyond it.

Conclusions

Academic administrators as well as researchers in the subject area have requested research and information of this type since the beginning of the honors program movement in the 1980s (Haas, 1992; Pritchard & Wilson, 2003; Radomski, 2006; Rinn, 2005; Robinson, 1997; Schroer & Dorn, 1986). Most recently, Scager et al. (2011) called for additional research in meeting the support needs of honors students, urging the academic community to work toward a better "fit between the learning environment and the abilities, interests and motivation of the students" (p. 34). Noting that this task is a difficult one because honors students are not a homogeneous population, Scager et al. (2011) urged researchers to seek out different ways and different means to support these students with very different needs.

From the quantitative analysis. To consider the use of a "different means" of supporting honor students, i.e., the MBTI personality assessment, the researcher quantitatively considered student data alongside MBTI data from a population of honors students enrolled at a small, public, two-year college in the Midwest between 2007 and 2012, the researcher employed an ANOVA (Bluman, 2010) to determine whether any significant difference existed between this population's individually identified dominant MBTI typologies and the group's retention data, as specified in the study's Research Question 1. No significant difference was found, and the null hypothesis was not rejected. Likewise, the researcher, in seeking to answer Research Question 2, employed an ANOVA (Bluman, 2010) to determine whether any significant difference existed

between the population's MBTI typologies and its average GPA data. Again, no significant difference was observed. Even when the quantitative analysis was extended to include the dominant and auxiliary MBTI typologies and to relate them to the population's average retention and average GPA, no significant difference was observed (Bluman, 2010).

Clearly, the data analysis involved in the quantitative portion of the study points out that MBTI typology data did not provide a trustworthy means of statistically considering significant differences among this particular population of honors students, both in terms of their retention and success in college.

In considering the appropriateness of the study's design in terms of the quantitative analysis, the researcher observed that the quantitative analysis could have lacked for sufficient data, especially when the 244-student population was categorized by the six possible dominant typologies (the environmental typologies of Extraversion and Introversion excluded) and, later, by the 21 possible dominant and auxiliary typology combinations. McKay (2009), who, with a similar purpose as this study, sought to determine predictors of student success in an honors program, also observed this problem with an insufficiently sized data pool. He said of previous research in this area, "Studies must include large sample sizes to reduce anomalies inherent to non-random sample selection. Even with sample sizes of 135 and 130, significant predictors varied by cohort" (McKay, 2009, p. 78. In order to correct for these issues, his study in 2009 was with a 1,000-student sample. Savage, Raehsler, and Fiedor (2014) noted other researchers previous to McKay with similar aims utilized sample sizes as large as 39,277 and even 80,000.

The researcher also observed that, in seeking to observe a statistical relationship between an honors student's personality typology and his or her retention and success in college, he chose to utilize non-numerical MBTI data, i.e., the dominant and, with the extension, auxiliary typologies assessed by the MBTI instrument and represented by the non-environmental dichotomies of Sensing (S) or Intuitive (N), Thinking (T) or Feeling (F), and Judging (J) or Perceiving (P). This choice proved problematic, as it was soon noted that the planned use of a statistical method to determine the level of correlation between the population's individually-identified MBTI typology and the group's retention status and academic success (final GPA with the institution) would not be possible without numerical data associated with or representing the MBTI typologies. Because of this, the researcher had to average the population's retention data and GPA data and then conduct a one-way ANOVA to determine if there was a significant difference within the population between the six non-environmental MBTI typologies and the group's academic success data (Bluman, 2010).

From the qualitative analysis. The original purpose of the qualitative analysis portion of this mixed methods study was to provide supporting evidence to the quantitative data (Creswell & Clark, 2011) should an analysis of the data show a significant difference among the related means (Bluman, 2010). Since the null hypotheses were not rejected for both Research Question 1 and 2 after an ANOVA analysis of the data (Bluman, 2010), the subsequent or sequential collection and analysis of the qualitative data stood separate or autonomous from the quantitative data (Creswell & Clark, 2011).

From the data generated by the 11 focus group interviews conducted with a sample of honors students from the original population considered in the quantitative portion of the study, a list emerged of several attitudes and behaviors associated with being an honors student and previously identified by researchers as jeopardizing their opportunities for success in college. Robinson (1997) noted these attitudes and behaviors included perpetuating poor study skills and time management caused by being able to "wing it" in high school; feeling pressured by a higher level of competition among a new set of peers; struggling to accept one's first grade lower than an A (often called "grade shock"); not being able to discern one's strengths and weaknesses and learning preferences; not being able to accept the need to ask for assistance; and not having the skills or past experiences to cope with the challenges of college. Callard-Szulgit (2003) contended a major issue with honors students was having to prioritize time commitments across their many interests and commitments, while Schwartz (2007) stated that a key issue among this group was their being to handle the personal, familial and social expectations for someone of honors-level capabilities.

As noted above, five themes emerged from the qualitative data generated by the focus group interviews (Creswell & Clark, 2011). These themes, academic preparation, learning and social environments, expectations as honors students, external and internal challenges, and passion and purpose development, fall within Chickering's seven vectors of student development (Chickering & Reisser, 1993). Academic preparation can be found within Chickering's vector concerning students developing competence in intellectual skills (Chickering & Reisser, 1993). The learning and social environments theme resonates with the vectors concerning the student's movement autonomy toward

interdependence and his or her development of mature interpersonal relationships including increased tolerance and appreciation for others (Chickering & Reisser, 1993). The theme concerning the student's expectations of being an honors student can be associated with the vector that explains how students must clarify their own self-concept (Chickering & Reisser, 1993). Passion and purpose development closely echoes the ideas in the vector concerning the student's development of purpose in vocational and personal interests, while the study's theme centered around the student's external and internal challenges hints at Chickering's vector where students must develop a personal integrity demonstrated by the clarification of their core values and beliefs (Chickering & Reisser, 1993).

Given the evidence provided by the qualitative portion this study, the researcher agrees with Chickering and Reisser's (1993) statement that success in reaching and passing through these vectors/themes will help determine the quality of the student's college experience, translating into retention and graduation. In addition, Chickering and Reisser's (1993) recommendation that students, in this case honors students, can not just achieve these vectors/themes by mere experience and shear personal will; rather, the researchers note that external support systems must be in place to assist them in their development of and passage through these vectors (Stewart, 2008).

These findings of the qualitative portion of this study are also in keeping with those of McCaulley (2000), King and Howard-Hamilton (2000), Horton et al. (2009), and others noted in the review of literature.

An unexpected outcome of the qualitative study, and certainly not a focus of the qualitative study's interview questions, was the emergent and common appreciation of the

interactive classroom. From the qualitative data generated by the focus group interviews, many, if not most, participants in each of the Performance groups and MBTI typology groups mentioned the benefits they experienced from the open discussion/small group interactive teaching-learning model within the honors program at their institution. As described by the former honors students now focus group participants, the practices found in this learning environment included the six practices noted by Seifert et al. (2007) in their survey of American honors programs. These six practices, course-related interaction with peers, academic effort and involvement, a high number of reading materials, use of higher order questioning techniques by the instructor, and instructor skill and clarity, were among 20 identified by Chickering and Gamson (1999) as "good practice measures" important to providing an engaging learning and social environment conducive to the student's successful passage through Chickering's seven vectors of student development (Chickering & Reisser, 1993).

From the literature and the psychosocial theories used in this study's conceptual framework, Astin's (1999) student involvement theory and Tinto's (1993) model of student departure provide theoretical support to the interactive teaching-learning model respected by the honors students in the study. In particular, Astin (1999) said a focus on maximizing effective student involvement among traditional-age college students improves the student’s engagement in the classroom as he or she interacts with content matter, in the learning environment as he or she engages resources on campus, and in the developmental phases, such as those outlined by Chickering (1969), through individualized approaches in advising, career counseling, and leadership development.

In his theory of student departure, Tinto (1993) focused on the actions of others and how those actions shaped the formal and informal communities in which students operate (Skipper, 2005). These communities fall in two primary areas, academic and social, and thus closely aligned with two of the five themes of this study and are closely aligned with the research and findings of Wolfensberger (2012) and (Tinto 1993).

Implications of Conclusions: From the immense amount of research concerning the struggles of college students to remain in school, complete their degree, and move toward the career and life-choices they desire, it is clear that the academy continues to wrestle with how best to address these struggles and to ultimately and significantly reduce the personal, social and economic costs of student failure (Lanier, 2008). It is also clear from the literature that, in comparison to studies about college students in total, researchers have focused relatively little on the attitudes and behaviors that put the more academically-capable students, our honors students, at risk of failure, too.

From this limited study, two implications can be immediately seen. First, honors students have struggles similar to other college students, but they also have unique hurdles created because of their higher intellectual and creative capabilities (Grobman, 2006; Satterfield, 2006; Scager et al., 2011; Siegle et al., 2010; Singell & Waddell, 2010; Waugh et al., 1994). These struggles emerged from the qualitative portion of this study in five areas: academic preparation, learning and social environments, expectations as honors students, external and internal challenges, and passion and purpose development. Each of these should be considered separately for their effects on the honors student, but advisors and instructors of these students should not ignore how linked and integrated they are in their influence (Cosgrove, 2004; Barefoot, 2011; Lanier, 2008; Noldon &

Sedlacek, 1996; Rinn & Plucker, 2004; Robinson, 1997; Scager et al., 2011; Slavin et al., 2008).

If as Lanier (2008) contended, academic administrators have little evidence, or even the means to discover the evidence, that higher order learning associated with the honors program setting is actually occurring, then it follows that educators have even less knowledge about the struggles of honors students in achieving these outcomes as well as the attitudes and behaviors that put this students at risk. Aligning with the conclusions of Barefoot (2011) and Schwartz (2007), the findings of this study provides evidence for yet another call to college administrators to focus their retention and student success efforts on increasing the tools and training of their academic advisors.

The second implication from this study's conclusions concerns the expanded use of the MBTI for assessing and, with additional research, predicting at-risk characteristics of honors students. From the evidence provided by the qualitative portion of the study, clearly some associations can be seen between certain attitudes and behaviors held by honors students and their dominant MBTI typology. While these associations are still not yet strong enough to "predict" student outcomes, they can be used to provide possible avenues of discovery as advisors and counselors work with honors students in dealing with the personality-influenced obstacles they feel are before them (McCaulley, 2000).

Because of the complexity of the human personality, however, advisors and students, as well as future researchers, must be aware that a single MBTI typology can not predict nor diagnose all the ills experienced by any individual. For that reason, advisors and students must consider the whole of the individual's personality and the

environment in which it is operating. It is also for that reason that additional research is required.

Recommendations for Future Research

As noted above, a weakness of this study was the insufficient number of honors students considered in the population studied. Given the study's design, the sample or population size would need to be large enough to provide the ANOVA (Bluman, 2010) with a sufficient number of data points for retention and GPA and among each of the six dominant MBTI typologies or, when the dominant and auxiliary typologies are paired, among each of the 21 possible pairings. Preferably, the data would also be distributed among the groups as equally in number as possible to prevent unequal population variances (Bluman, 2010). Finding such numbers would require studying data from either a large honors program or a smaller one over a longer length of time.

Another possible approach to the MBTI data would be to use the numerical score given for each of the four type dichotomies. When completing the MBTI assessment, the individual's responses to the instrument's questions determine his or her placement along a 60-point numerical range for one of the dichotomies (Myers & Briggs Foundation, 2003). This placement lies between a maximum score of 30 for one of the two types and a maximum score of 30 on the other opposing type in the dichotomy (Myers & Briggs Foundation, 2003). The "score" indicates the individual's stronger type in this dichotomy; however, this numerical representation of the individual's type does not indicate numerically the equally important though lessor presence of the opposing type (Myers & Briggs Foundation, 2003). In other words, one may have a Sensing typology score of 25 but he or she also has some natural tendency toward Intuition as well (Myers

& Briggs Foundation, 2003). Utilizing these "typology scores" in a statistical analysis may provide a better quantitative approach to this data.

Another alternative approach to using MBTI data would be to utilize all four of the typologies generated by the MBTI assessment tool to represent an individual's natural tendencies. In using all four of the types, a broader, deeper and more delineating analysis could be conducted; however, such breadth and depth would also require data from even larger pool of honors students (Bluman, 2010).

In considering the appropriateness of the design in terms of the qualitative portion of this mixed methods study, the researcher observed that the focus group interview was an effective method of obtaining and then gleaning information from the thoughts of the respondents; however, given the findings and the analysis that led to those findings, a better grouping of participants may have yielded better more definite results.

As planned, the researcher grouped participants in the focus groups in two sections, by Performance group (Top, Moderate, and Poor Performers) and then by dominant MBTI typology (Sensing, Intuition, Thinking, Feeling, Judging, and Perceiving). Having the two groups was helpful but somewhat confusing in the analysis. With the purpose of the research aimed at determining whether the use of personality typology in would serve to understand and then predict the attitudes and behaviors that put college honor students at risk of failure, it seems in hindsight that only one group consisting of the six dominant MBTI categories would have been a better decision.

Also, the researcher observed from analyzing the transcripts of the focus group interviews that participants tended to mimic or "ditto" each other's comments at times. Even though additional information was gleaned from subsequent respondents, the initial

response from among the participants often set the parameters or frame of the others' responses. It seems, again in hindsight, that designing focus groups in this study around an even distribution of each of the six MBTI typologies (i.e., two from Sensing, two from Intuition, two from Thinking, etc.) may have generated a better discussion and thus a greater variety of responses as participants sought to build an argument around their views and in opposition to others. Although this would increase the complexity of the analysis because individuals would need to be identified by their particular typology within the group, the ultimate nature and response content of each typology could be better differentiated from among the others.

Summary

The overarching goal of this mixed methods study was to consider how college educators could better support their honors students on the path to meeting the students' educational and career goals. The study was in keeping with the call for more knowledge about honors students, such as that made by Scager et al. (2011), who stated, "A better understanding of the interaction between students' motivational, creative and intellectual aptitudes on the one hand, and the learning environment and teaching methods on the other hand, could lead to better learning in honors groups" (p. 35).

From the outset of the study, the researcher sought to understand how psychosocial student development theory, such as that developed by Chickering (1969) and Astin (1999), might be able to frame and inform the use of personality typologies, such as the MBTI assessment tool developed by Myers and Briggs (2003) and advanced by McCaulley (2000), to support honors students whose attitudes and behaviors unique to them as honors-level students put them at risk of losing the educational and career

opportunities that lie before them. After a thorough review of the literature, this became the study's conceptual framework under which the research questions and methodology were aligned.

Four research questions guided the study, two using an ANOVA in a quantitative analysis and two using a focus group interviews in a qualitative analysis. The study focused on the entire population of 244 honors students who attended a small, public, two-year college in the Midwest. The first two research questions asked, in Research Question 1, if there were significant differences between the students' average retention rates and the students' individually identified dominant MBTI typologies and, in Research Question 2, if there were significant differences between the students' average GPA when exiting the institution and, again, their dominant MBTI typologies. The last two questions sought evidence from a sample of honors students in the quantitative portion's population, grouped according to their dominant MBTI typologies, about the behaviors and/or attitudes they experienced in college that, in answer to Research Question 3, may have affected whether they stayed in school or not and, secondly for Research Question 4, may have affected their level of academic success as determined GPA.

Findings for Research Question 1 and 2 indicated there were no significant differences, first, between the population's average retention and it's dominant MBTI typologies, and, second, between the population's average GPA and the same dominant typologies. In qualitative portion of the study, five themes emerged from the analysis of the focus group interview data. The five themes were academic preparation, learning and social environments, expectations as honors students, external and internal challenges,

and passion and purpose development. These themes were in line with Chickering (1969) and Astin's (1999) theories that framed this study. When considering the focus group responses from which they emerged, they also encapsulated many of the at-risk characteristics of honors students that emerged from the literature review.

Two implications for practice and for theory in working with honors students were noted. The first implication is that honors students have unique attitudes and behaviors created because of their higher intellectual and creative capabilities and exhibited in the academic and social environments found in college. These attitudes and behaviors put the students at risk of not completing college or working at a level at which they are capable. Because of this, educators, advisors and counselors should consider how in-class and extracurricular strategies focused on these attitudes and behaviors can ameliorate their negative effects and, when channeled correctly, even enhance their positive influences toward assisting the students in meeting the educational and career goals they seek to achieve.

The second implication is how the MBTI assessment tool can serve to provide information for educators, advisors and for the students themselves as they encounter the learning and social environment of college. The qualitative study's findings indicated that certain typologies, as identified by the MBIT, may be influencing a student's attitudes and behaviors. Knowing this information would assist the advisor as well as the student in understanding the personality framework or pattern by which he or she is approaching the learning and social environment being engaged (King & Howard-Hamilton, 2000; Parsons et al., 2008; Richardson & Arker, 2010).

Finally, the data drawn from the focus group interviews also provided information about the influence of the interactive classroom model employed during the enrollment period of this honors student population. The focus group respondents repeatedly identified the one-on-one and small group engagement present in the interaction classroom as being a key to their academic and social acclimation into college life. Such engagement brought the subject matter to the discussion table, created a safe place for individual views and arguments, and provided an equally safe place for the students to exhibit their unique abilities, all of which aided in the critically important development of the self and individual identity of students (Chickering, 1969; Astin, 1999).

If, as Tinto (1993) said, the extent of the student's integration into these communities determines his or her college persistence, then an interactive teaching-learning model like that experienced and appreciated by the honors students in the study may assist them in more than just their development as students. It may also work to mitigate the at-risk attitudes and behaviors associated with being an honors student. In doing so, such support and experience may also increase the likelihood of the students' retention and success in college and subsequently, through the opportunities afforded them by such success, the attainment of their career and life goals in a world that will need their unique skills and abilities.

Appendix A

Please note that Lindenwood University Institutional Review Board has taken the following action on IRBNet:

Project Title: [435094-1] Using Psychosocial Development Theory and Personality Typology in Identifying At-Risk Characteristics of College Honors Students

Principal Investigator: Dennis Lancaster

Submission Type: Revision

Date Submitted: August 9, 2013

Action: APPROVED

Effective Date: November 4, 2013

Review Type: Full Committee Review

Should you have any questions you may contact Tameka Tammy Moore at tmoore@lindenwood.edu.

Thank you,

The IRBNet Support Team

www.irbnet.org

Appendix B

To: Dennis Lancaster

[redacted]

[redacted]

Approval Date: 10/09/2013

Expiration Date of Approval: 10/08/2014

RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)

Submission Type: Initial

Expedited Category: 7.Surveys/interviews/focus groups

Study #: 14-0138

Study Title: Using Psychosocial Development Theory and Personality Typology in Identifying At-Risk Characteristics of College Honors Students

This submission has been approved by the above IRB for the period indicated. It has been determined that the risk involved in this research is no more than minimal.

Study Description:

The purpose of this proposed study is to examine how academic leaders, coordinating a comprehensive collegiate honors program, can use psychosocial student development theory and research in the use of personality types to support college honors students whose attitudes and behaviors (unique to them as honors-level students) put them at risk of losing collegiate and career opportunities.

Investigator's Responsibilities:

Federal regulations require that all research be reviewed at least annually. It is the Principal Investigator's responsibility to submit for renewal and obtain approval before the expiration date. You may not continue any research activity beyond the expiration date without IRB approval. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.

You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented (use the procedures found at [redacted]). Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB following the adverse event procedures at the same website.

This study was reviewed in accordance with federal regulations governing human subjects research, including those found at 45 CFR 46 (Common Rule), 45 CFR 164 (HIPAA), 21 CFR 50 & 56 (FDA), and 40 CFR 26 (EPA), where applicable.

Appendix C

Myers-Briggs Type Indicator®
Profile

JANE SAMPLE / ENFP
October 28, 2009

This profile is designed to help you understand your results on the *Myers-Briggs Type Indicator®* (MBTI®) assessment. Based on your individual responses, the MBTI instrument produces results to identify which of sixteen different personality types best describes you. Your personality type represents your preferences in four separate categories, with each category composed of two opposite poles. The four categories describe key areas that combine to form the basis of a person's personality as follows:

- **Where you focus your attention—Extraversion (E) or Introversion (I)**
- **The way you take in information—Sensing (S) or Intuition (N)**
- **The way you make decisions—Thinking (T) or Feeling (F)**
- **How you deal with the outer world—Judging (J) or Perceiving (P)**

Your MBTI type is indicated by the four letters representing your preferences. Based on your responses to the assessment, your reported MBTI type is ENFP, also described as Extraverted Intuition with Feeling. Your results are highlighted below.

Reported Type: ENFP

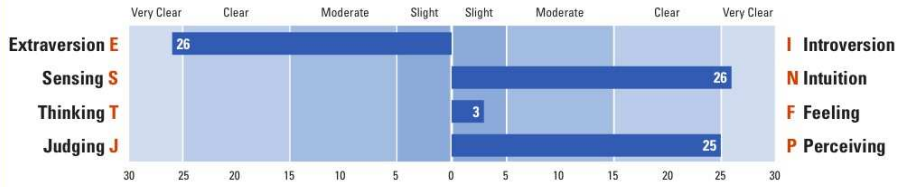
Where you focus your attention	**E**	**Extraversion** People who prefer Extraversion tend to focus their attention on the outer world of people and things.	I	**Introversion** People who prefer Introversion tend to focus their attention on the inner world of ideas and impressions.
The way you take in information	S	**Sensing** People who prefer Sensing tend to take in information through the five senses and focus on the here and now.	**N**	**Intuition** People who prefer Intuition tend to take in information from patterns and the big picture and focus on future possibilities.
The way you make decisions	T	**Thinking** People who prefer Thinking tend to make decisions based primarily on logic and on objective analysis of cause and effect.	**F**	**Feeling** People who prefer Feeling tend to make decisions based primarily on values and on subjective evaluation of person-centered concerns.
How you deal with the outer world	J	**Judging** People who prefer Judging tend to like a planned and organized approach to life and prefer to have things settled.	**P**	**Perceiving** People who prefer Perceiving tend to like a flexible and spontaneous approach to life and prefer to keep their options open.

Your responses to the MBTI assessment not only indicate your preferences; they also indicate the relative *clarity* of your preferences—that is, how clear you were in expressing your preference for a particular pole over its opposite. This is known as the *preference clarity index,* or pci. The bar graph that follows charts your pci results. Note that a longer bar suggests you are quite sure about your preference, while a shorter bar suggests you are less sure about that preference.

Myers-Briggs Type Indicator®
Profile

JANE SAMPLE / ENFP
October 28, 2009

Clarity of Reported Preferences: ENFP



PCI Results Extraversion 26 Intuition 26 Feeling 3 Perceiving 25

Your type professional can give you more insight into your profile results as well as elaborate on the type description provided for you in the chart below. Does the description of your reported type seem to fit you? Many people find that their MBTI results describe them quite well. For others, changing a letter or two may help them discover an MBTI type that more accurately captures their personality. If you feel the characteristics do not fit you quite right, the person who administered the MBTI instrument can help you identify a better-fitting type.

Type Description: ENFP

ISTJ	ISFJ	INFJ	INTJ
ISTP	ISFP	INFP	INTP
ESTP	ESFP	**ENFP**	ENTP
ESTJ	ESFJ	ENFJ	ENTJ

- Curious, creative, and imaginative
- Energetic, enthusiastic, and spontaneous
- Keenly perceptive of people and of the world around them
- Appreciative of affirmation from others; readily express appreciation and give support to others
- Likely to value harmony and goodwill
- Likely to make decisions based on personal values and empathy with others
- Usually seen by others as personable, perceptive, persuasive, and versatile

Each type, or combination of preferences, tends to be characterized by its own interests, values, and unique gifts. Whatever your preferences, you may use some behaviors that are characteristic of contrasting preferences. For a more complete discussion of the sixteen types, see the *Introduction to Type®* booklet by Isabel Briggs Myers. This publication and many others to help you understand your personality type are available from CPP, Inc.

CPP, Inc. | 800-624-1765 | www.cpp.com

Appendix D

CPP Permission Number 19316

CPP

Sample Item Request Form

Date 6/28/2013

Name Dennis L. Lancaster

Address 9744 CR 8590, West Plains, MO 65775

Telephone Number [redacted] Fax Number [redacted]

Email Address: [redacted] CPP Customer Number 294095

Specific title, form, and edition of the instrument for which sample items are needed: Sample Profile pdf,
Myers-Briggs Type Indicator ® Profile Copyright 1998, 2004 by Peter B. Myers and Katharine D. Myers.

Sample items will be published in: Dissertation Thesis Research Project Other

Title of Project or Article or Publication: Using Psycho-Social Development Theory and Personality Typology in Identifying At-Risk Characteristics of College Honors Student

Terms and Conditions for Research Use

If permission is granted by CPP, Inc. ("CPP") the following terms and conditions will apply:

1. CPP will issue pre-selected sample items for the assessment requested. Only these sample items may be used.
2. Permission is limited to only the one-time use specifically described above.
3. You agree to use a credit line supplied by CPP whenever sample items appear.
4. This permission does not include any commercial or for-profit use of the sample items.
5. There is no fee associated with this permission.
6. You assume responsibility for any misuse of the sample items you use pursuant to this agreement. CPP shall not be responsible for your use or misuse of the sample items.
7. You agree that the sample items as provided by CPP and used by you pursuant to this agreement remain the property of CPP.
8. You agree not to adapt, modify, translate, alter, or change the sample items in any way.

I hereby request permission from CPP for sample items as described above and agree to the terms outlined above for such research use:

Signature [signature] Date 6/28/13

CPP, Inc., ~~hereby extends you permission~~ under the terms stated above for the sample items you have requested.

CPP Authorized Signature THADDEUS STEPHENS, VP & GENERAL COUNSEL

July 10, 2013
Date

9/09

Appendix E

Sample Invitation Letter

(*Date*)

(*Name of invited participant*)
(*Street address or email address*)
(*City/State/ZIP, if by letter*)

Study Title: Using Psychosocial Development Theory and Personality Typology in Identifying At-Risk Characteristics of College Honors Students

Dear (*Name of invited participant*),

As you may or may not know, I am currently enrolled in the doctoral program in higher education leadership at Lindenwood University, St. Charles, MO. As a part of this program, I am conducting a research study, and I would like to invite you to participate.

In this study, I am considering the at-risk characteristics of college honors students and how the use of the Myers-Briggs Type Indicator (MBTI) may assist educators in understanding and assessing these characteristics. If you decide to participate, you will be asked to be part of a focus group interview (a group discussion with 7-9 other people having experience in a college honors program) about your college experience. In particular, you will be asked questions about your preparation for college, your expectations, the challenges and triumphs you experienced, your level of comfort in tackling your courses, and your best and worst learning experiences.

The meeting will take place at (*name and address of site*) at (*time, month and day*), and the session should last about 90 minutes. The focus group interview will be audio-recorded so that I can accurately reflect on what is discussed. A transcriptionist and I (and, if appropriate, my dissertation committee) will be the only individuals to review the recordings. After the recordings have been transcribed and analyzed, they will then be destroyed.

Please know that, if you should feel uncomfortable at any time in answering any or all of the questions, you do not have to answer. Although you probably won't benefit directly from participating in this study, we hope that others in the higher education community and society in general will benefit by being able to assist other college students in reaching their desired goals.

Participation is confidential. Study information will be kept in a secure location. The results of the study may be published or presented at professional meetings, but your identity will not be revealed. Participation is anonymous, which means that no one outside of the research team will know what your individual answers are.

The third-party interviewer and others in the group will hear what you say, and it is possible that your fellow group members could tell someone else. Because you will be talking in a group, we cannot promise that what you say will remain completely private, but we will ask that you and all other group members respect the privacy of everyone in the group.

Taking part in the study is your decision. You do not have to be in this study if you do not wish to be. You may also leave the study at any time or decide not to answer any question you are not comfortable answering. *(For those still enrolled in college . . .)* Participation, non-participation or withdrawal will not affect your grades in any way.

I will be happy to answer any questions you have about the study. You may contact me at [redacted] or my faculty advisor, (Dr. Sherry DeVore, [redacted]sdevore@lindenwood.edu) if you have study related questions or problems. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) by contacting Dr. Jann Weitzel, Vice President for Academic Affairs at (636) 949-4846.

If you would like to participate, please email me at [redacted] on or before (*deadline date*). After your email, then I will follow-up with a confirming email message and at a later date with a reminder message. Enclosed with this letter you will also find a sample copy of the consent form you will be asked to complete and sign when you attend the focus group discussion. Please become familiar with the form's contents and be prepared to complete it when you arrive at your appointed session.

Thank you for considering this opportunity for both of us to learn more about honors education and how we may be able to assist other college students in their educational pursuits.

With kind regards,

Dennis Lancaster
[redacted]

Lindenwood University

School of Education

209 S. Kingshighway
St. Charles, Missouri 63301

Informed Consent for Participation in Research Activities

"Using Psychosocial Development Theory and Personality Typology in Identifying At-Risk Characteristics of College Honors Students"

Principal Investigator __Dennis Lark Lancaster_____
Telephone: [redacted]E-mail: dll789@lindenwood.edu

Participant_____Contact info_____

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1. You are invited to participate in a research study conducted by Dennis L. Lancaster under the guidance of Dr. Sherry DeVore. The purpose of this research is assess the attitudes and behaviors of college honors students that may put them at-risk of not succeeding in reaching their academic goals.

2. a) Your participation will involve
   - Gathering with other honors students and responding to a series of discussion questions. These questions are designed to elicit responses from you and your fellow focus group members concerning the research.

   - Participating in a focus group interview sessions conducted by an individual trained to lead the group in responding to the discussion questions. He or she is not part of the research project.

   b) The amount of time involved in your participation will be between 1-2 hours.

   Approximately 70-90 participants will be involved in this research. Each focus group session, however, will involve no more than 10 participants.

   1. There are no anticipated risks associated with this research.

4. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about college honors students and honors education and may help college educators to better serve this population of society.

5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

6. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Dennis L. Lancaster ([redacted]) or the Supervising Faculty, Dr. Sherry DeVore, ([redacted]. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature Date	Participant's Printed Name
Signature of Principal Investigator Date	Investigator Printed Name

Revised 1-21-2010

Appendix F

Focus Group Interview Plan and Protocols

The following plan will help to ensure a focus group interview process that is consistent in setting participant expectations, providing a level of comfort in participating and providing honest and informative answers, and assuring confidentiality for the information they provide. Most importantly, a close execution of this plan will help to ensure qualitative data of integrity and thus useful to the proposed study.

The following steps will be taken:

1) Each student will be sent a letter that invites them to participate in the focus group interviews. The letter will also provide an introduction to the group sessions, subsequent interview, and the purposes for the sessions. Along with the invitation, a review copy of the Adult Consent Form will be attached for their review.
2) Upon gathering at the meeting site, participants will be welcomed by the researcher and the one or two volunteers who will lead the interviews.
3) Once in place, the researcher will provide an overview of the session and explain its purposes. The researcher will also introduce the group leaders, explain the need for the note-taker and the audio recording technology, and ask the participants if they have additional questions.
4) After providing the overview, the researcher will leave the meeting room.
5) The group leader will then ask the participants to sign their Adult Consent Forms if they still wish to participate. Those who do not sign the form will thanked for coming and then be asked to exit the meeting. Signed forms will be gathered and later given to the researcher for documentation.
6) Before beginning the questioning, each group leader will read the following statement:

    [Explain that this introduction is being read aloud and verbatim in order to ensure consistency across focus group sessions.]

    Welcome and Instructions

    Thank you for agreeing to participate in a discussion about student learning, your experiences in college, and especially your experiences as an honors program-eligible student, no matter if you completed the honors program in full, in part, or not at all.

During this session, we want to ensure you that your views will be listened to and that your views are highly valued. Please know that your identity will not be disclosed to anyone outside the research team. We are interested in the experiences and attitudes of students, not of particular individuals.

I am going to ask you some questions about your experiences of being in college as an honors student. I hope these questions will stimulate discussion among you as a group. I will not be contributing to the discussion; rather, I am here to moderate the discussion, to make sure all responses are heard, and to keep track of time.

Please ask me to repeat a question should need me to do that. Again, I am here to prompt discussion, not to participate in it.

As part of the research process, it is important that we record the discussion, both in written note form and in use of a digital audio recorder. Please speak clearly and remember that the recorder will not pick up physical actions. Please try to voice everything, but not at the expense of interrupting each other. If you speak over another person, the transcribing of your responses will be very difficult to decipher.

Do you have any questions before we begin?

If not, let's begin.

7) The group leaders will be given these instructions:

- Read the questions exactly as written. Do not elaborate.
- Do not lead the respondent to a point. Only seek clarification, if needed.
- If responses lag significantly, prompt additional responses by repeating the question or encouraging others to speak.
- Watch the time; keep to a schedule so all questions can be answered within the two-hour time limit.
- When finished with the questions, thank the group for their participation and insights.

8) As the group leaves the meeting site, the researcher will thank them as well and will provide them with a small gift of appreciation.

9) Following the session, the researcher will seek the assessment of the group leader(s) about how the session went and what small changes might improve the overall experience toward meeting its purposes better.

[1] Winlow, H., Simm, D., Marvell, A., & Schaaf, R. (2013).

Appendix G

Survey Questions for Focus Group Interviews

The focus group interviews will questions of three categories of honors students:

1) Top Performers, or honors students who completed their associate degrees with the Specialization in Honors and with a cumulative GPA of 3.5 or higher within three years of admission into the institution;

2) Moderate Performers, or honors students who completed their associate degrees but who did not complete the requirements for the Specialization in Honors and/or who had a cumulative GPA between 2.5 and 3.49 within three years of their admission into the institution, and

3) Poor Performers, or honors students who either did not complete their associate degree within three years of their admission into the institution, who earned a GPA of less than 2.5, and/or who are not currently enrolled.

The focus group participants will be asked these questions:

1. When you first stepped foot on campus, would you say you were prepared for college? Why or why not?
2. Did you know why you were coming to college when you first came? If so, how sure were you of that reason? If not, why did you come?
3. During the course of your time on campus, did you ever consider quitting? What would have been your reasons?
4. Were there any experiences in the classroom that caused you to feel more or less uncomfortable? How about on campus but outside of the classroom?
5. What would you say was THE best learning experience you had? What made it the best?
6. What was the worst? What made it the worst?
7. Describe how you learn best. Now describe the perfect learning experience/environment for your way of learning.
8. What about going to college made you the most anxious or stressed?
9. What aspects of college made you the most comfortable?
10. What else would you like to say?

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Vita

Dennis Lancaster is currently the Interim Dean of Academic Affairs at a southwest Missouri college campus and over the past two decades has served in several capacities including Acting Chancellor, Director of the Honors Program, and Special Projects Coordinator. Teaching is important to Dennis, and he maintains his assistant professor of letters status and continues to teach and connect with students each semester. Dennis obtained his bachelor's degree in English Literature from Drury University in 1984, and a master's degree in Journalism from the University of Missouri in 1996. For the past 32 years, Dennis has been married to Rita, and they have four children, Seth (and daughter-in-law Beth), Leslie, Kori, and Nicholas, and three grandchildren, In his spare time, Dennis enjoys traveling, writing, and working to restore his family's 100-year-old farmhouse and grounds.