

THE USE OF NON-COGNITIVE CONSTRUCTS TO PREDICT SUCCESS OF FIRST-YEAR
STUDENTS IN A COLLEGE OF BUSINESS

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ABSTRACT

This study examined the relationship between academic hardiness, emotional and social competencies, academic success (as measured by grade point average), and persistence, in a sample of 178 first-year College of Business students at North Dakota State University. Students were administered the Emotional and Social Competency Inventory – University Edition (ESCI-U) and the Revised Academic Hardiness Scale (RAHS) within the context of their first-year experience course as part of an on-going assurance of learning project at the College. Additional data was collected at the end of the semester relating to the students cumulative GPA as well as persistence data (did students re-enroll the following semester).

Regression analysis was conducted to evaluate how well the data from the instruments, separately, predict student GPA and persistence. The outcome of the analyses indicates that all components of academic hardiness (commitment, control-effort, control-affect, challenge; as measured by the RAHS) were predictive of student GPA. Further, the component of commitment was predictive of a student's persistence. Emotional and social competencies (as demonstrated as a composite score of the ESCI-U) were found to be predictive of a student's GPA but not predictive of a student's persistence in this study.

The findings of this dissertation study support targeting curriculum specifically to these two constructs, to further develop these skills and attitudes in students. The benefit of this would be the impact that development of these skills and attitudes can have on GPA (and persistence, in the case of RAHS – commitment), but additionally these skills and attitudes are sought out by organizations that are hiring graduates.

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CHAPTER 1. INTRODUCTION

Employees who are involuntarily separated from employment are often released due to poor attitudes or interpersonal difficulties (Lozada, 1996); almost half of new hires fail within 18 months on the job (M. Murphy, 2012). Although college graduates may obtain employment because of the skills they learn during an academic career, without the ability to relate to others in the workforce, they can rapidly come to be a poor outcome. Hiring organizations are looking for individuals who are “‘high-quality . . .’ with general intellectual depth, [and] solid interpersonal and communication skills . . . (Trauth, Farwell, & Lee, 1993, p. 294). These relational skills are those that help when building relationships with other individuals, based on interaction and communication (Brungardt, 2011), and can lead to one’s success at work (Goleman, 1995).

These employers’ needs give credence to curricular focus in post-secondary education to these interpersonal skills in order to satisfy the needs of such employers (Beard, Schwieger, & Surendran, 2008; Trauth et al., 1993). These skills [Authors sometimes use the phrase *soft skills* when referring to these interpersonal skills.] are not typically used to measure success of students in higher education. “Soft skills are attitudes and behaviors displayed in interactions among individuals that affect the outcomes of such encounters” (Muir, 2004, p. 96). These skills are the interpersonal, emotional, and social competencies (ESC) that are utilized by an individual in communication and relationships with others. Other competencies necessary in the workplace include problem-solving, team-building, effective communication, relationship building, stress reduction, and constructive confrontation skills (Pine & Tingley, 1993), competencies that are related to how an individual interacts with others.

There is good reason why organizations want to hire individuals who demonstrate emotional and social competency. Organizations that employ people with higher levels of these affective and interpersonal competencies generally report a higher profit than organizations where leaders or managers have lower levels of such competencies (Lopes, Grewal, Kadis, Gall, & Salovey, 2006). Gallivan, Truex, and Kvasny (2004) found that, even within the information technology sector which is known for its technical certifications, firms are actively seeking candidates with emotional and social competencies inclusive of communication, interpersonal skills, and leadership. Looking for these competencies in new hires could prove to be a lasting trend in human-resource management because higher profits are the goal of most business enterprises.

Emotional and Social Competencies

In 1955, when first describing the essential skills of an effective administrator in the *Harvard Business Review*, Katz wrote, “The person with highly developed human skills is aware of his own attitudes, assumptions, and beliefs about individuals and groups” (p. 34). Katz’s reference to *human skills* has become a construct formalized by several authors and referred to as “emotional intelligence” [EI] (Bar-On & Parker, 2000; Boyatzis, 2009; Goleman, 1995, 1998; Mayer, Salovey, & Caruso, 2004; Salovey & Grewal, 2005; Salovey & Mayer, 1990). While formal models and definitions of EI vary from author to author, several researchers have included the EI models of Salovey and Mayer (1990), Bar-On (1997), and Goleman (1995, 1998) as the three leading theoretical models in the field (Conte, 2005; Mishra & Mohapatra, 2010; K. R. Murphy & Sideman, 2006; Petrides & Furnham, 2001; Zeidner, Matthews, & Roberts, 2004).

Of these models, each one has a specific definition of what comprises emotional intelligence; each model is described in Table 1. The common threads in these three models are

that understanding and identifying one’s own and others’ emotional state as well as having the ability to manage or influence one’s own or another’s state cumulatively equate to having emotional intelligence. Further, the theoretical models delineate differences between *trait* EI and *ability* EI. Petrides and Furnham (2001) describe trait EI as behaviors that are described through self-report, whereas ability EI is the actual ability to use EI. Salovey and Mayer’s model of emotional intelligence describes ability EI as a true intelligence, or the ability of an individual (Salovey & Mayer, 1990). The Bar-On model is known as a “mixed model” (Cherniss, 2010) among some researchers although Bar-On first described it as a trait EI model. The Goleman and Boyatzis model describes the ability of an individual to *utilize* emotional intelligence; this utilization is referenced in their model as emotional and social competencies (Boyatzis, 2009; Cherniss, 2000; Goleman & Boyatzis, 2008). Although emotional intelligence can serve as an umbrella construct for each model, the actual *transfer* of emotional intelligence into behavior or action can be demonstrated by an individual’s skill in utilizing EI.

Table 1
Components of Three Leading EI Models

Salovey and Mayer, 1990	Bar-On, 1997	Boyatzis and Goleman, 2007
Utilization of Emotion	Intrapersonal	Self-Awareness
Regulation of Emotion	Interpersonal	Self-Management
Appraisal and Expression of Emotion	Adaptation	Social Awareness
	Stress Management	Relationship Management

In the workforce, training individuals to develop these competencies is possible but can be an expensive endeavor. The American Society of Training Developers (ASTD) estimates that organizations in the United States spend over \$134 billion U.S. on all employee training and

development (Paradise, 2007). To make the large investment in training worthwhile, companies seek individuals who are motivated to learn; companies are looking to hire recent graduates who are lifelong learners (Bennett, 1999). In order to become lifelong learners, individuals need to develop insight about their own process of learning and thinking, having the internal attitude, motivation, and drive to continue to learn, independent of the stress or challenges they may confront.

Hardiness

The construct of hardiness is similar to that of emotional intelligence in that it can benefit individuals and organizations with employees' personal and professional development.

Hardiness has been described as an attitude and a skill (Maddi, Harvey, Khoshaba, Fazel, & Resurreccion, 2009), and as a personality style that envelops the dimensions of control, challenge, and commitment (Kobasa, 1979). These three dimensions can influence how an individual grows and develops cognitively and emotionally (Kobasa, 1979; Maddi, Khoshaba, & Pammeter, 1999).

A demonstration of hardiness is shown when individuals believe that, rather than being powerless, they have control over destiny (Kobasa, 1979). Hardiness also includes an attitude of challenge, which can be exhibited through the expression that stress is normative in one's life and that stress or difficulty actually presents a pathway to learning new things (Kobasa, 1979; Maddi, 2006; Maddi et al., 2009). Commitment is the third dimension of hardiness; a hardy individual would feel committed to a stressful situation rather than withdraw or retreat (Kobasa, 1979). These three components of hardiness can be beneficial to hiring organizations. Rather than employees who avoid difficult situations, hardy employees seek challenges, commit to difficult things, and sense some control over their circumstances. Hardiness also provides

support to an employee's performance when faced with stress (Khoshaba & Maddi, 1999).

Identifying and preparing students who hold an attitude of hardiness can allow them to be better candidates for employment and employees in organizations.

Because hardiness can be developed through life experiences, there is a possibility that, under certain conditions, individual hardiness can be further developed and learned (Khoshaba & Maddi, 1999; Maddi et al., 2009). Therefore, the personality and attitudinal manifestations of hardiness may transfer from students' classroom work to students' professional career, which could be of benefit to an employer. An individual who exhibits hardiness is one who has an ability to grow personally and professionally, even when confronted with difficult circumstances (Kobasa, Maddi & Kahn, 1982).

Academic Hardiness

While individuals' general hardiness can be measured by utilizing the Personal Views Survey II (Maddi, 1996), a more applicable measure for undergraduate students preparing for the workforce would be an instrument that measures academic hardiness (Benishek & Lopez, 2001). Developed from the hardiness construct first identified by Kobasa (1979), academic hardiness relates specifically to how an individual student interacts with the university world using the same attitudinal factors of control, commitment, and challenge (Benishek, Feldman, Shipon, Mecham, & Lopez, 2005; Benishek & Lopez, 2001).

Academic hardiness can be measured and applied to a learning and development setting such as post-secondary education. Students who are academically hardy seek out challenging courses, regardless of the effect on their grade point average (GPA). Students who are academically hardy can often find success in sensing that they have control over the outcomes of their effort. Further, academic hardiness allows students to feel a commitment to their own

success and further allows a demonstration of greater retention than students who may be deficient in this construct (Benishek et al., 2005; Benishek & Lopez, 2001).

The First-Year Student

The quality of student learning, persistence, and graduation rates are measures that legislatures and public entities use to determine if higher education is successful (Edwards & McKelfresh, 2002). For individual students, the positive outcomes of persistence and degree completion are reliant upon the instruction a student experiences during the first semesters at a university (Erickson, Peters, & Strommer, 2006). Other non-cognitive factors, such as residence during the first year (Astin, 1984), informal interaction with faculty (Hunter, 2011), personality, motivation (Kappe & van der Flier, 2012), and a host of other variables, have been shown to be factors leading to student success.

For the first-year business student, measures of success can include the student's GPA and persistence (Cox, Schmitt, Bobrowski, & Graham, 2005). While a high GPA and persistence to degree completion are outcome measures that can indicate student success in college, these measures alone do not transfer to success in the workplace. While teaching and training for technical skills must continue, there is an increasing demand for organizations to hire workers who already have well-developed interpersonal skills (Beard et al., 2008) because these skills help individuals retain jobs. Students who major in business-related career fields can benefit from increasing interpersonal competencies (Beard et al., 2008; Tucker, Sojka, Barone, & McCarthy, 2000), which can lead to this career success. Although these interpersonal competencies are not the measures used by universities to determine a student's success, they are being used in the business world to indicate poor outcomes for new hires (Lozada, 1996; M. Murphy, 2012).

Institutional Approaches to First-Year Student Success

Because academic success can be a complex and unlimited series of measures, there have been institutional approaches to support students' success. One of these institutional approaches is the living – learning community (LLC), including a first-year experience (FYE) course. There are several LLC models, and the characteristics of many models include housing first-year students in a shared space; programming responsibilities for the students with residential life and academic staff; supportive resources, such as tutors or increased time with faculty outside the classroom; and community members taking at least one, and perhaps all, of their first-semester courses together as a cohort (Soldner & Szelenyi, 2008; Stassen, 2003). Participants in some LLC models have been found to exhibit positive outcomes (Inkelas & Weisman, 2003; Stassen, 2003), including increased interaction with faculty and peers (Hunter, 2011), greater retention (Stassen, 2003), and greater persistence to the next year of study (Edwards & McKelfresh, 2002). While the entirety of the living – learning community involves several aspects of the student experience, the actual learning community (LC) is the designation of a living arrangement within the living – learning community program.

Career Success for First-Year Students

The successful performance of newly hired college graduates who have been prepared for the workforce in a business field may be attributed to their ability to manage their emotional and social selves, and to carry an attitude of hardiness to their professional growth and development. It would be less resource intensive and more practical for organizations to hire individuals who already possess well-developed emotional and social competencies as well as hardiness, or to hire those who are interested in the challenge of learning new skills if they do not already possess such attributes. However, a student's success at a university is not currently measured

by these attributes; therefore, there is little impetus to measure or develop these competencies in students.

Business colleges may be more inclined to help their students gain these competencies if investigating such competencies indicates a relationship with a student's success as currently measured by GPA or persistence. Gaining insight about emotional and social competencies as well as hardiness within an academic setting can start as early as the first year of university study. Insight, early in an academic career, can allow students to focus attention and learning on their areas of strengths and developmental needs.

Organizations can measure employee success based upon one's performance and retention, yet there is also an increasing awareness that non-cognitive, interpersonal factors weigh heavily on an employee's success. If emotional and social competencies along with hardiness are characteristics that employers desire, these characteristics may need to be developed in higher education. There may be predictive qualities for these constructs, and together, the constructs may lead to a student's success or persistence.

Purpose

Employers are positing that new hires are not successful because they lack interpersonal skills. Meanwhile, business colleges continue to teach students the technical skills they need for their career and to measure success based upon the outcomes of GPA and persistence. There are few accepted measures of a student's interpersonal aptitude or desire to learn that are currently being utilized at the university level as a measure of success, yet these factors lead to success in the workplace.

The purpose of this study was to determine if academic hardiness or social and emotional competencies would predict student success (as measured by GPA) and student persistence.

While academic success and persistence may not be unilateral predictors of career success, these measures may help employers identify appropriate candidates who can be interpersonally successful and persist in their organization. If the two constructs, or components of the constructs, can predict a student's academic success or persistence, that outcome may be an indication that these constructs need to be addressed in post-secondary educational settings.

This research would be important to colleges and universities, and also to human-resource professionals within hiring organizations. Identifying student competencies at the start of the undergraduate experience, and measuring the relationship strength between these competencies and students' academic success and persistence can allow for curricula customization which could further a student's occupational success. At the same time, if these constructs are found to be predictive of student success, institutions of higher education can utilize these for assurance of learning purposes.

Research Questions

The research questions for this study are as follows: can components of academic hardiness (AH) predict student success or persistence? Further, can a student's level of emotional and social competency predict success or persistence? The null hypotheses derived from these research questions are as follows:

H₀₁: AH commitment is not a predictor of a student's GPA.

H₀₂: AH control-effort is not a predictor of a student's GPA

H₀₃: AH control-affect is not a predictor of a student's GPA

H₀₄: AH challenge is not a predictor of a student's GPA

H₀₅: AH commitment is not a predictor of a student's persistence

H₀₆: AH control-effort is not a predictor of a student's persistence

H₀₇: AH control-affect is not a predictor of a student's persistence

H₀₈: AH challenge is not a predictor of a student's persistence

H₀₉: Emotional and social competencies are not a predictor of a student's GPA.

H₀₁₀: Emotional and social competencies are not a predictor of a student's persistence.

The alternative hypotheses are as follows:

H₁: AH commitment is a predictor of a student's GPA.

H₂: AH control-effort is a predictor of a student's GPA

H₃: AH control-affect is a predictor of a student's GPA

H₄: AH challenge is a predictor of a student's GPA

H₅: AH commitment is a predictor of a student's persistence

H₆: AH control-effort is a predictor of a student's persistence

H₇: AH control-affect is a predictor of a student's persistence

H₈: AH challenge is a predictor of a student's persistence

H₉: Emotional and social competencies are a predictor of a student's GPA.

H₁₀: Emotional and social competencies are a predictor of a student's persistence.

Emotional and social competencies can assist students with relational skills, effective communication, empathetic responses, and insight about their own emotional state and the emotional state of others. With these qualities, along with academic hardiness, students may be more successful in their university setting, and this success can likely transfer to their career. The pragmatic importance of such research is related to transitioning students from passive learning to being engaged in learning. This paradigm shift can help students be more successful in the world of business and organizations. If a relationship is found from student's ESC and

academic hardiness to success and persistence, it is possible that this relationship could predict later career success.

Limitations and Delimitations

As with all research, there are limitations and delimitations for this study. Analyzed data are historical data from a population of College of Business students at a Midwestern land-grant university. Although the population is representative of the first-year business students at this particular university, it may not be generalizable to all majors/colleges or universities due to the geographic location and the types of majors that the first-year students had declared. The delimitation of the assumptions made from this dataset is that it may be comparable to future cohorts of first-year students in the College of Business at this university. Other delimiting qualifiers are that this research study is limited to first-year College of Business students, rather than all College of Business students or other college(s) students.

Due to proprietary reasons, one of the instruments utilized has limited information on its reliability and validity, issues that will be addressed in Chapter 4 of this disquisition. Further limitations and delimitations are addressed and indicated at the closure of this research study.

Organization of Study

The format of this dissertation includes generally accepted steps to research, including an Introduction (Chapter 1), Literature Review (Chapter 2), and Methodology (Chapter 3). Results (Chapter 4) and Conclusions, Recommendations and Implications (Chapter 5) also follow.

CHAPTER 2. LITERATURE REVIEW

In 1991, the U.S. Department of Labor (DOL) commissioned a study to determine what workplace competencies would be important for the future workforce. By gathering data from industries, the report identified five competencies, along with a baseline level of personal and cognitive skills, which serve as the foundation for successful employees. The authors of this report stated, “**Employers** [emphasis in original] must orient their business practices to hiring and developing this know-how in employees” (The Secretary’s Commission on Achieving Necessary Skills [SCANS], 1991, p. iii).

The competencies identified by this group were not inclusive of technical knowledge or skills; rather, the competencies included interpersonal skills, relationship skills, flexibility, and working with technology. The foundation that these competencies were built from consisted of two parts: basic and thinking skills, and personal and/or affective qualities. With this study, employers had a benchmark to determine if their workforce was prepared for the future, and to hire employees who would enter the field with these competencies and foundational skills intact.

In addition to the U.S. DOL study, the Canadian Alliance of Education and Training Organization [CAETO] also prepared a report indicating the advanced, essential skill needs in Canada (2003). This report drew similar conclusions as the U.S. DOL study, identifying the essential base skills (communication and interpersonal skills) needed by students entering the workforce.

The Partnership for 21st Century Skills (2008) recommended that educators and businesses should work together to develop a list of necessary skills for people’s success and should work to teach these skills prior to students entering the workforce. The skills identified in this report by both educators and businesses included communication, critical thinking, problem

solving, flexibility, and adaptability in addition to the core skills that involve math, science, and reading. Most companies prefer individuals who, upon hire, possess the emotional and social skills needed to be successful in the organizations (Weber, Finley, Crawford, & Rivera, 2009). Even in industries where technical skills are the most prevalent, employers understand that, in addition to those technical skills, interpersonal and affective skills are increasingly pertinent (Trauth et al., 1993). When identifying the realities that the workplace needs from academia, Carnevale (2008) reported that workplaces seek graduates who have the ability and desire to continue learning, those individuals who already have interpersonal skills, communication skills, and problem-solving skills. The transition to a knowledge-based global economy, rather than an industrial local economy, means that workforce preparation must also transition to meet these needs (Carnevale, 2008).

Universities, in particular colleges of business, are beginning to adapt to these needs. A management information system (MIS) program at Southeast Missouri State University (accredited by The Association to Advance Collegiate Schools of Business [AACSB]) decided that emotional and social competencies were important to its students and integrated these skills by “explicitly setting goals and objectives relating to soft skills in our strategic planning, curriculum development, and pedagogy . . .” (Beard et al., 2008, p. 229). The State University of New York-Oswego campus added a Management 110 course to the curriculum; the course included the topic of communication skills (Cox et al., 2005).

To further ensure success, individuals entering the workforce from college must also have a greater overall depth and breadth of skills and knowledge than ever before (Liptak, 2005). Rapid changes in technology, coupled with a university’s reluctance to increase the time needed for undergraduate students to obtain a degree (Alexander, 2000), mean that university educators

must continually ask themselves, “What must we teach our students today that will not be obsolete tomorrow?” (Bennett, 1999, p. 37). Trauth et al. (1993) asked, “Are we [academe] providing the right type of education for our future . . . professionals?” (p. 293). In their study of MIS firms, Trauth et al. found that respondents recommended that university programs increase the focus on students’ communication skills. Further, employers hiring recent graduates cited that the most important skill needed was the ability to maintain relations with their clients (1993). Unfortunately, the same study also found that academicians rated this skill set as being eighth most important. These findings clearly demonstrate the variance between employer expectations for graduate’s interpersonal skills and what academics sense are the important skills to teach.

This gap between employers’ desire and the academy output is not a new phenomenon. These interpersonal skills were identified and categorized by Thorndike (1920), as the ability to successfully interact socially with others. Thorndike’s research focused on psychological constructs, such as the assessment and measurement of intelligence, as an intellectual (cognitive) capacity. Thorndike posited that there was more to intelligence than just *intellectual* capacity and even named this new construct as *social intelligence*, the ability for individuals to get along with one another and to influence others. The identification of this newly named construct caused a slight proliferation of research dedicated to it, but it was addressed again by Thorndike and Stein (1937), indicating disappointment about the lack of empirical output related to this construct as well as the lack of applicable tools or instruments to measure it. Individuals who lack social intelligence, or the ability to get along with others, could be identified, leading to the potential of improving one’s skills. With enhanced interpersonal skills, individuals could be more successful in the workplace (Goleman, 1995).

Emotional Intelligence

History

Psychologists continued to focus on the construct of intellectual (cognitive) intelligence, with such researchers as Spearman (1927) and Wechsler's (1958) intelligence theory.

Social/Emotional intelligence was underrepresented in the literature until Gardner (1983) published his theory of multiple intelligences. Gardner sensed that intelligence as a whole was being incorrectly measured as one single construct and that, in fact, individuals could express several types of intelligence. Intelligence constructs, such as intrapersonal and interpersonal intelligence, were included in Gardner's multiple intelligence theory; also included were constructs identified as kinesthetic and musical intelligence.

Gardner (1983) defined intra/interpersonal intelligences as the abilities to get along with others, communicate well, and tune into the emotional responses of self and others. Gardner's new theory of multiple intelligences, once again, brought the focus of what was deemed "personal intelligences" to the forefront of psychological inquiry.

Models of Emotional Intelligence

While emotional intelligence (EI) as a construct is relatively new in development, there have been several iterations of the construct to meet the needs of many genres. There are more than 60 measures of EI (Schutte & Malouff, 1999); many researchers have created and commercialized their own instruments to measure emotional intelligence (Cartwright & Pappas, 2008). Large groups and corporations, such as Johnson & Johnson (Cavallo & Brienza, 2001), the United States Air Force (Bar-On, 2010), Fortune 400 insurance companies (Lopes et al., 2006), hospitality corporations (Langhorn, 2004), and colleges of business (Boyatzis & Saatchioglou, 2008; Boyatzis, Stubbs, & Taylor, 2002), have participated in various studies about

how emotional intelligence as well as emotional and social competencies can benefit students, employees, and the bottom line.

While it is important to note that there are several competing models and instruments (Table 2), three models are common touchstones in the literature (Cherniss, 2010): Salovey and Mayer (1990; Mayer & Salovey 1993, 1995); Bar-On (1997, 2000), and Boyatzis and Goleman (Boyatzis, 2000; Goleman, 1995, 1998; Boyatzis & Goleman, 2007). Salovey and Mayer (1990) refer to their model as an *ability* model, which should correlate with measures of cognitive intelligence. The latter two models of emotional intelligence have become known in the literature as *mixed* models or *trait* models. These models differ in concept from Salovey and Mayer's model (1990) and are commonly differentiated from the original theory by all authors writing on this topic. These variations with the model have led to consternation in the EI community, and there continues to be little consensus on the differing models. The similarities and differences for these theories as well as the instruments utilized to measure the varying theoretical constructs are described in Table 2.

Salovey and Mayer model of emotional intelligence

Salovey and Mayer (1990) helped clarify the construct first identified by Thorndike (1920) by naming it *emotional intelligence*. The underlying assumption in their work was that people differed in their levels of perception, expression, understanding, and regulation of affective demonstration. Salovey and Mayer created one of the first instruments to measure their four domains of emotional intelligence (MEIS; Mayer, Caruso and Salovey, 1999). The instrument has undergone several revisions to improve reliability and validity, and is now referred to as the Mayer, Salovey, and Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, Caruso, and Sitarenios, 2003). The MSCEIT is deemed to be a *psychological* measure

of emotional intelligence, and it includes scenarios and pictures of emotional expression that are intended to measure how someone would respond in a situation that requires a degree of emotional command and how well the individual completing the instrument can detect emotions in others via an affective display.

The authors' subsequent research indicates that their instrument measures an individual's *ability* to perceive, understand, use, and manage one's own and others' emotions. The data that are produced by the MSCEIT are measured in two possible ways. One way is through a panel of experts who have already determined the most correct answer for the statements, and the other way is for the individual's score to be measured against the normative scores of others who have completed the instrument. The outcome of the instrument is an individual measure of the overall score for each of the four main categories (Mayer, Salovey, Caruso, & Sitarenios, 2003).

Bar-On model of emotional intelligence

Bar-On's theory of emotional intelligence has been identified as a *mixed-model* (Grubb & McDaniel, 2007) in that it differs from Salovey and Mayer's model because it includes several affective abilities, competencies, and skills relating to an individual's environment (Bar-On, 1997). Bar-On's measurement of emotional intelligence, the Emotional Quotient-Inventory (EQ-i), is a 133-item, self-report questionnaire that is purported to measure an individual's traits of emotional intelligence.

The EQ-i is widely used, perhaps more so than other instruments; however, the model the instrument is measuring is a bit different from the MSCEIT. The Bar-On model, and subsequently the EQ-i, includes intra/interpersonal intelligence, adaptability, and stress management. The EQ-i is a self-report instrument, and critics (Grubb & McDaniel, 2007; Locke, 2005) have noted that it could be easily faked by takers and also may not be a true measure of

someone's capacity to demonstrate emotional intelligence. One example of the "fakability" [*sic*], (Grubb & McDaniel, 2007, p. 43) of a self-report measure such as the EQ-i would be an individual who experiences socio-pathology or psychopathology having the cognitive ability to fake skills such as empathy or interpersonal connections for acceptance or connivance.

The Bar-On model of emotional intelligence (1997, 2000) and Salovey and Mayer (1999), along with subsequent instruments, support that there is more than one theoretical model of what EI manifestations are being measured. Although the MSCEIT (Mayer, Salovey, Caruso, & Sitarenios, 2003), is deemed to measure the EI Ability and the EQ-i is described by Bar-On (1997) to measure the traits of EI, there is an additional model of EI, or how EI manifests in individuals, which is noted by Goleman and Boyatzis.

Goleman/Boyatzis model of emotional intelligence/competency

Daniel Goleman, while supporting the work of Salovey and Mayer (1990) and Bar-On (1997), added additional psychological concepts to their formulations of the construct, and the idea caught on in the mainstream media (Goleman, 1995). Goleman claimed that emotional intelligence is more important than intellectual or cognitive intelligence to the success of individuals in the workplace (1995, 1998). Goleman's model included such concepts as self-awareness of emotions, self-management of emotions, social awareness of emotions, and relationship management. Goleman expanded the construct to include what he indicated were traits and posited that individuals with higher emotional intelligence are generally more successful in their careers (1995, 1998). While Goleman popularized emotional intelligence and brought the construct to the mainstream, he has since attempted to distinguish his theory of emotional intelligence from that of Salovey and Mayer (1990) and Bar-On (1997) by modeling it as emotional and social *competencies* (Cherniss, 2000; Shipp, 2010).

Table 2

Instruments Related to Emotional Intelligence

Instrument	Year	Theorist/Instrument	Competencies Measured	Number of Items	Source
EQ-i	1997	Bar-On	Intrapersonal Interpersonal Adaptation Stress Management General Mood	133 items full version; 51 items short version	Bar-On (1997, 2000)
MEIS	1997	Mayer, Caruso, and Salovey	Emotional Perception Emotional Facilitation of Thought Emotional Understanding Emotional Management in Self and Others	>400	Mayer, Caruso, and Salovey (1999)
MSCEIT	1999	Mayer, Salovey, and Caruso	Emotional Management Emotional Understanding Emotional Facilitation Emotional Perception	294	Livingstone and Day (2005); Mayer, Salovey, Caruso, and Sitarenios (2003)
ECI	2000	Boyatzis and Goleman	Self-Awareness Social Awareness Self-Management Social Skills	110	Cartwright and Pappas (2008); Muyia (2009)
ECI- 2	2002	Boyatzis and Goleman	Self-Awareness Self-Management Social Awareness Social Skills	72	McEnrue and Groves (2006)
ESCI, ESCI-U	2007	Boyatzis and Goleman	Self-Awareness Self-Management Social Awareness Relationship Management Cognitive Competencies	70	Boyatzis and Sala (2004)

Goleman teamed with Boyatzis to expand and refine Goleman's original model (1995) to work in further alignment with business rather than psychology, and he began to reframe his model first as social intelligence (Goleman 1995, 1998) and, more recently, as emotional and social competencies (ESC). Competency was defined by Boyatzis as "a capability or ability" (2008, p. 6) and can be viewed as a "behavioral approach to talent" (2008, p. 10). Emotional and social competencies can be thought of as the actual skills (competencies) that can be utilized to influence interpersonal relationships. "Emotional competence refers to the personal and social skills that lead to superior performance in the world of work" (Cherniss, 2000, p. 7). This definition differs from the construct of EI in that competence is not an intellectual measure but a description of an ability to utilize emotional and social skills. Goleman and Boyatzis indicate that the competencies addressed in their theory and subsequent instruments are learned; therefore, individuals can improve on deficit areas (Boyatzis, 2008; Boyatzis & Goleman, 2007; Boyatzis et al., 2002; Shipp, 2010).

Measurement of Emotional and Social Competencies

The Emotional and Social Competencies Inventory (ESCI) is a 70-item, self-report instrument that was created by Boyatzis & Goleman (2007); it was one of the first instruments to be developed that included a 360-degree assessment of an individual's emotional and social competencies. Boyatzis and Goleman refined this instrument to maximize its potential use for business and created a self-report instrument developed specifically for universities (ESCI-U).

This self-report instrument measures items in five domains: self-awareness, self-management, social awareness, relationship management, and cognitive competencies (Boyatzis and Goleman, 2007). Within the area of self-awareness, the instrument captures a university student's self-report of emotional awareness, what a student is feeling, and how a student is

affected by such feelings. The self-management section includes questions related to how a student manages emotional expression, how adaptable a student is in relation to an emotional experience, and how a student's mood state is affected by emotions. Social awareness measures the student's self-concept of functioning within a social capacity using emotions. The measures in this section allow students to report how well empathy can be used to build or support their relations with others. The relationship-management statements focus on relational skills such as leadership, teambuilding, and inspiring others. The cognitive competency section focuses on a student's ability to identify and assess patterns.

Boyatzis and Goleman (2007) posit that the ESCI-U is a measure of the social and emotional competencies of a business student, or the student's actual *use* of emotions and emotional expression. The ESCI-U is differentiated from other instruments because it is focused specifically towards *business* students (at the undergraduate and graduate levels) and includes cognitive components. The particular competencies measured by the ESCI-U are those that specifically relate to success in a practical business application, including the career areas of business such as accounting, finance, management information systems, management, marketing, and human resources. Due to the focus on these specific industries, this instrument, rather than any others that are available, is ideal for measuring the competencies of university students in a business-school setting.

Benefits of Emotional and Social Competencies

Benefit to organizations

Daniel Goleman suggested that having and using emotional and social skills could contribute more to the success or failure of an individual in the workplace than technical skills. He further described these skills as "emotional intelligence" (1995). Emotionally intelligent

people are better performers in the workplace than their peers who lack emotional intelligence (Law, Wong, & Song, 2004). “Emotional intelligence may contribute to work performance by enabling people to nurture positive relationships at work, work effectively in teams, and build social capital” (Lopes et al., 2006, p. 132). The interpersonal skills demonstrated by people with higher emotional intelligence are what lead people to be successful in the workplace. There is an emergence from several paradigms of workplace thought, that emotional intelligence is extremely important in leadership of future organizations (Dulewicz & Higgs, 2003).

Emotionally and socially competent behavioral practices can be attributed to success in organizations (Bagshaw, 2000; Blattner & Bacigalupo, 2007; Boyatzis, 2009; Carmeli & Josman, 2006; Clark, Callister, & Wallace, 2003; Crosbie, 2005; Dearborn, 2002; Goleman, 1995; Liptak, 2005; Morehouse, 2006; Rahim & Minors, 2003; Schoo, 2008; Tucker et al., 2000). Organizations that employ people with higher levels of emotional and social competencies (or emotional intelligence, depending on the instrument used to measure the construct) generally report a higher profit than organizations where leaders or managers have lower EI levels (Lopes et al., 2006). Organizations that employ individuals with higher levels of emotional and social competencies in leadership roles have more success to lead and manage employees. This success can be due to those individuals’ ability to demonstrate empathy, have greater levels of adaptability, deal better with stress, and have an awareness of their own emotions and how the demonstration of emotions affects others. Emotional and social competencies are also useful skills to utilize to build relationships with others, and leaders who can influence others’ emotional states are also seen as successful (Goleman, 1998). A perfect starting place to measure and facilitate the learning of such competencies would be with undergraduate students early in their academic career.

Benefit to college of business students

Katz (1955) cited three skills needed to be effective in administration: technical, human, and conceptual. The focus of student learning in higher education may lie more on the technical and administrative skill sets (Weber et al., 2009) while overlooking the human skills which need to be learned (Trauth et al., 1993). Business educators were encouraged to go beyond teaching theoretical models for organization effectiveness (Muir, 2004) and to begin teaching how to utilize those theories through the use of interpersonal skills. Theory and technical knowledge were important, however, interpersonal and intrapersonal skills were found to be the most sought from prospective employers (Liptak, 2005). Even in the area of accounting, employers felt that degree programs needed improvement in developing soft skills for their graduates (Gammie, Gammie, & Cargill, 2002). Regardless of the specific business major, it is imperative that business schools integrate affective competencies into their graduates' skill set for career success (Tucker et al., 2000).

Business educators can become defensive when feeling external pressure about what they should cover in the classroom (Trauth et al., 1993). In addition to this pressure, university faculty can sometimes view that competency development of this type should happen in the career or planning/placement office (Boyatzis & Saatchioglu, 2008). The impetus then lies with researchers to show, empirically, that emotional and social competency development is important for students, and that development must start early in a student's academic learning process. If such development does not start in a student's academic career, then the responsibility to train individuals in such skill sets may fall to the organizations that hire these students.

While training may be useful, it can be very expensive for organizations. “Soft skills training commands a large percentage of the dollars spent on training in organizations and is the focus of most leadership development” (Crosbie, 2005, p. 45). Not all companies are willing to spend the resources on this type of training. Trauth et al. (1993) found that only 28% of respondents indicated that their companies offer such training programs. However, training in emotional and social competencies would first require the acquisition of insight by employees (Waters, 1980). Successful training would also require that employees be motivated to learn and take the risks to develop interpersonal skills throughout their careers.

Regardless of the differences among EI models, the construct of emotional intelligence indicates that not only do emotions carry an important role in an individual’s life, but also that a person’s ability to perceive, understand, manage, and utilize emotion in one’s life is not a constant. These differences can vary depending on the contexts within which a person operates (Cherniss, 2010) and, therefore, can manifest as different skills and abilities within such contexts. Because of changing contexts, it is plausible that there are several models that describe this construct as well as several instruments that measure emotional or social intelligence and the competencies related to such constructs.

While the varying models and the authors are known for competing theoretical perspectives, it is useful to indicate that each model can have a place in which it is most effective for explanation. For the purposes of this research, emotional and social intelligence is discussed, measured, and viewed through the lens of emotional and social competencies. This viewpoint is not pitting one theory against another because the “ability” model demonstrated by the original author’s theory is, in many ways, aligned with all other EI models; awareness and management

of one's own or another's emotions is the key concept for the construct of emotional intelligence (Cherniss, Extein, Goleman, & Weissberg, 2006).

Helping students develop insight about social and emotional competencies is the first step for learning such competencies in order to prepare for a career. This insight can provide the impetus for students to build upon baseline competencies. A student who is aware of social and emotional developmental areas can strengthen the baseline competencies through facilitated learning activities within the context of an academic experience. This strengthening can only happen if a student has a desire and will to learn about an area that may be challenging. There are students who avoid challenging topics and difficult coursework due to the fear of receiving lower grades or failing. This avoidance can easily transfer to a future career where the student, now employee, will avoid difficult problems with a fear of failure. Therefore, workplaces may also be interested in seeking candidates who demonstrate an attitude of hardiness.

Hardiness

History

At the time Kobasa (1979) developed her theory of hardiness, existential psychology was attempting to determine the reasons why some individuals, when placed in a high-stress setting, succumbed to physical illness and did not succeed while others purposely sought stressful situations, performing well and thriving with such challenges. Hardiness was theorized as a personal disposition that influences the way in which a person interacts within their environment (Maddi & Hightower, 1999). The hardiness theory explained why some individuals thrive in difficult circumstances and how such individuals grow, psychologically, from such conditions. Hardy individuals were found to possess three underlying factors that allowed them to succeed in psychologically stressful settings, whereas non-hardy individuals did not have these factors or

did not hold them to such a degree. Kobasa (1979) identified these factors as control, commitment, and challenge.

Kobasa's hardiness theory posits that individuals who are hardy feel greater levels of *control* over external situations, have more *commitment* to get through difficult or stressful situations, and see or experience such difficult or stressful situations as a *challenge* that they get through to succeed. This ability to successfully handle stressful situations is also a large component of emotional intelligence theory (Cherniss, 2000) and, therefore, indicates a possible relationship between the hardiness theory and the social and emotional competencies.

Academic Hardiness

Benishek and Lopez (2001) wondered why some students generally avoid challenging coursework and will do whatever it takes to avoid difficult classes that may lower their grade point averages. They also wondered what led students to leave universities, to stop out or drop-out, or to fail coursework. Positive cognition is one theorized factor because individuals who hold generally positive thoughts do not succumb to negative outcomes as often as those who are pessimistic (Seligman, 2002). Students who fail or drop out could be afflicted by negative thinking, although not all students with positive cognition about their academic situations ended up being successful (Benishek & Lopez, 2001). However, the framework of control, commitment, and challenge of psychological hardiness (Kobasa, 1979) were explored to determine if it were also useful to explain these university students' outcomes (Benishek & Lopez, 2001). The theory was applied to students, and those students who expressed hardiness sensed *control* over their outcome and sought *challenging* coursework regardless of how it could affect their GPA. These same students also felt *committed* to growing academically.

Measurement of Academic Hardiness

Measurement is important to fully determine a student's level of academic hardiness. Measurement can allow any student to gain insight about hardiness attitudes and behaviors; it is also one step for learning and developing such attitudes and behaviors in preparation for a career. A student who is aware of commitment, control, and challenge attitudes can build upon that baseline through facilitated learning activities. Benishek and Lopez's (2001) Academic Hardiness Scale (AHS) was developed with the intent of gaining insight about a student's level of academic hardiness. The instrument scale was based on the three indicators of hardiness originally defined by Kobasa (1979): control, commitment, and challenge. Later, in further revision of this instrument, the item "control" was expanded to measure two different ideas: affective control (how well a student can control their own *emotions* when under duress, indicating that there could be a relationship between student's affective states and their academic success) and control of effort (how much effort a student puts forth in this capacity). This instrument was known as the Revised Academic Hardiness Scale (RAHS; Benishek et al., 2005).

Hardiness Benefits

Benefits to organizations

Hardy individuals "have a strong sense of commitment to life and work, and are actively engaged in what is going on around them. They believe they can control or influence what happens, and they enjoy new situations and challenges" (Bartone, Roland, Picano, & Williams, 2008). Organizations can benefit from hiring individuals who express hardiness because they will remain committed to the workplace and this commitment can lower turnover and training costs.

Benefits to college of business students

Sheard (2009) found a modest relationship between student success and hardiness, and added “strong, hardy attitudes in students are desirable . . . in that hardiness facilitates turning stressors to advantages” (p. 191). An academically hardy student is one who is challenged by learning new concepts, is able to commit to learning, and feels a sense of control over the learning environment. These model students can verify the rewarding outcome of teaching.

Further, hardiness was found to be a construct that can be learned successfully (Khoshaba & Maddi, 1999). One hardiness training program that had successful outcomes focused on helping individuals understand options to cope with disruptive stress in their lives by tuning into their cognitive, emotional, and active responses to such stressors (Maddi, 1987). In another study, researchers evaluated the effectiveness of a hardiness-training program on the performance of undergraduates deemed high-risk. The hardiness training course led to greater increases in attitudes and skills of hardiness as well as increased GPA (Maddi et al., 2002). Further studies about hardiness training indicated that hardy attitudes can be increased as well as improving the overall performance of working adults (Maddi, 1987; Maddi, Kahn, & Maddi, 1998). Training in hardiness also increased job satisfaction and constructive involvement with co-workers (Maddi, 2006). If hardiness makes good students and if students are able to learn hardiness, university programs that embed hardiness-learning activities in the curricula could assist students with academic and future career success.

Emotional and Social Competency, Academic Hardiness, and the First-Year Student

Academic success and persistence may be predicted by a student’s emotional and social competencies, as well as hardiness. If this relationship is found, the levels of these constructs in

students may possibly predict the same students' success in the workplace. In order to assist students in further developing ESC and hardiness, insight about such skill sets and the importance of being emotionally/socially competent and hardy can be developed. With insight, students may become motivated to learn specific strategies to move towards competence. One way to assist students in developing this insight would be to help identify a baseline level of competent functioning regarding emotional and social competency, and hardiness, in the first year of study. Working with students utilizing a developmental framework for learning how to increase competencies can further assist with future careers. "By knowing which soft skills are the most important, an individual can enhance their [*sic.*] chances to be recruited" (Weber et al., 2009, p. 359).

Emotional and social competencies can assist students in getting along better with one another, communicating more effectively, expressing empathy to enhance relationships with others, having an awareness of emotional states, and influencing others. These competencies, when further learned and developed in higher education, can carry into careers. Although there is disagreement in the field of emotional intelligence about whether such intelligence and skills are traits or competencies, the universal understanding in every theory is that a person can, to a large degree, improve and develop emotional and affective abilities (Boyatzis, 1982; Cherniss, Goleman, Emmerling, Cowan, & Adler, 1998; Goleman, 1995, 1998). If students can gain insight about emotional and social competencies at an early stage in an academic experience, further learning can occur, through coursework and focused development, to develop these competencies. This development could then allow for greater success in the workplace. Students who graduate from business colleges enter the business and corporate world where they

need these important soft skills (Cook, Bay, Visser, Myburgh, & Njoroge, 2011) in order to be successful.

Hardiness is similar in how it affects college students. While hardiness as a construct is usually deemed a fixed trait rather than a state-like function of an individual [see Luthans, Youssef, & Avolio, 2007, for further discussion of “trait” and “state”-like qualities], there are indicators that, at times, under certain conditions, hardiness can be taught and further developed in individuals (Khoshaba & Maddi, 1999; see also Maddi, 1987). A hardy student seeks challenging coursework, regardless of how it could affect a GPA. A student who is deemed hardy can often find success in sensing control over the outcomes of circumstances. Further, hardiness allows a student to feel a general commitment to success and allows a student to demonstrate greater persistence than a student who lacks this construct.

By providing students with a baseline level of hardiness, faculty members within a college of business can facilitate learning and development through coursework and activities and can expand upon students’ levels of hardiness to prepare for a career. Employers would be more interested in hiring business graduates who demonstrate higher levels of hardiness because it could lower the training and turnover costs, and employers could also receive the benefits of greater output, risk taking, and profitability.

Learning Communities, First-Year Experience Courses, and the First-Year Student

The first semester at a university has students facing many more new challenges than they had in high school (Cox et al., 2005). The first year of post-secondary education is the most crucial year in regards to determining a student’s success; over half the students who drop out of college do so during this time (Tinto, 1999). Because post-secondary institutions are concerned

about student success, factors that indicate signs of success, including persistence rate and academic achievement, are monitored during the first year (Tinto, 1987).

Universities have deployed a number of interventions to increase the success of first-year student outcomes, including the use of learning communities and first-year experience courses or programs. These programs, in various formats, have been shown to increase the persistence and achievement of first-year students (Cox et al., 2005; Edwards & McKelfresh, 2002; Pascarella, Bohr, Nora, & Terenzini, 1994; Pike, 1999; Pike, Schroeder, & Berry, 1997; Soldner & Szelenyi, 2008; Tinto, 1987, 2000; Zhao & Kuh, 2004), leading many institutions to design residence halls to support student learning and development while promoting student integration within the learning environment (Pike, 1999).

Hunter (2011) found that living in a learning community (LC) was a significant contributor to a student's success at North Dakota State University. Hunter's findings were derived from students who were a part of the same sample that were used for this dissertation study. Although student living arrangements were not considered as part of the research questions of this dissertation study, the previous findings of Hunter denote that student participation in a learning community needed further consideration in the study's methodology. This will be addressed further in Chapters 3 and 4 of this dissertation.

CHAPTER 3. METHODOLOGY

The research investigated if there was a relationship and predictive qualities among emotional and social competencies, components of academic hardiness, and a first-year student's success as measured by GPA and persistence. The study used historical data that were collected by the College of Business at North Dakota State University. The data were originally collected for assurance of student learning, from a population of students enrolled in BUSN 189 during Fall 2010. This course was a university-wide introductory course that is required for all first-year undergraduate students. This BUSN 189 course was strategically aligned with learning outcomes in the College of Business and was applicable to majors within the college.

Two quantitative instruments were included in this assessment process. One instrument utilized was the Emotional and Social Competency Instrument-University Edition (ESCI-U; Boyatzis & Goleman, 2007). Another instrument was the Revised Academic Hardiness Scale (RAHS) that was created by Benishek et al. (2005). Although each instrument was provided to the college in paper format, the statements from the instruments, as well as the Likert-type scales used to rate each statement, were entered into an electronic, web-based questionnaire research tool, Survey Monkey (<https://www.surveymonkey.com/>). The questions and responses were entered verbatim from the paper versions. The electronic format was created for ease of student use because students could access the questionnaire regardless of their physical location, whenever they were at a computer with Internet access.

In order to further assist with assessing student learning in this course, other data were collected in addition to these two instruments. One set of collected data was an indicator of a student's academic success. This measure was student GPA (cumulative) at the end of the first semester when the introductory course was taken. Also, a determination was made, based upon

enrollment records, of whether the students persisted at the end of their first academic semester at this university as indicated by enrollment for the spring semester. This determination was utilized as the measure for persistence. While the student's grades and persistence information were provided as part of an ongoing assessment project for the College of Business and while these data points were provided in a way that aligned with the student's instrument scores, the student's names and other identifying information were not available to this researcher.

The students were provided the electronic link to the instrument and asked to complete it as a portion of the assessment of learning for the course. Students were not graded on their scores on the instrument; rather, they were awarded participation points for completing the assessments. After completion, the result of each student's assessment was provided back individually, via a line graph, comparing their outcome on the ESCI-U and RAHS as compared to all the students in the course (reported as mean scores).

Sample

The individuals providing data for this study were first-year College of Business students who were enrolled in the BUSN 189 course during fall, 2010. BUSN 189 is a required course which serves as an introduction to studies in the College of Business. The students, upon entering the university, had declared majors in a College of Business program. The majors represented in the class during data collection included the following: accounting, finance, management information systems (MIS), management, marketing, and business administration.

It is important to note that, although each section of the course received the same curriculum instruction from the same instructor, students in the two sections differed in housing assignments. In section one ($n = 76$), the students all resided together in a business learning community (LC). Students in the second section ($n = 102$) lived in various residence halls or off

campus while they were taking this course. The students' living-arrangement data were also collected during this assessment process.

The resulting sample of first-year students consisted of 178 unduplicated students who participated in the BUSN 189 learning assessment. The first-year enrollment summary offered by the university's Office of the Registrar indicated that there were approximately 2,375 total first-time freshman students enrolled at the university, with approximately 280 full-time enrolled freshmen in the College of Business (reported by academic standing; the students who are counted as freshmen in the College of Business for headcount purposes may not be "first-semester freshmen"; NDSU Office of the Registrar, 2010). Therefore, the sample for this study was all the first-semester, first-year students enrolled in BUSN 189.

Instruments

ESCI-U Reliability and Validity

The ESCI-U is a 70-item, self-report instrument which measures 14 emotional and social competencies (competencies), utilizing a 5-point Likert-type scale: (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Consistently. The instrument is the "university" edition, meaning that it was formatted and developed specifically for students who are currently enrolled in higher education. It is an instrument where students score, or rate, themselves on the above scale. This edition (ESCI-U) was derived from the ESCI, which is the version of the instrument (in a 360° version) that is used in business and industry. The 14 competencies are organized into five domains: self-awareness, self-management, social awareness, relationship management, and cognitive competencies.

Within the area of self-awareness, the instrument includes statements related to individuals' concept of themselves regarding their awareness of their emotions, what they are

feeling, and how they are affected by such feelings. The self-management domain seeks responses related to how individuals manage their own emotional expression, how adaptable individuals are related to their emotional experience, and how individual mood states are affected by emotions. Social awareness measures the person's self-concept of functioning within a social capacity using emotions. The statements include how well an individual can use empathy to build or support relationships with others. The relationship-management domain focuses on relational skills, such as leadership, teambuilding, and inspiring others, including to what extent an individual can manage or influence another's emotional state. Cognitive competencies is the fifth domain, and focuses on an individual's ability to identify patterns within a system or organization. The ESCI-U (Boyatzis and Goleman, 2007) domains are demonstrated in Table 3.

Table 3

Five Domains and Fourteen Competencies of the ESCI-U

Domain	Competency
Self-Awareness	Emotional Self-Awareness
Self-Management	Achievement Orientation Adaptability Emotional Self-control Positive Outlook
Social Awareness	Empathy Organizational Awareness
Relationship Management	Conflict Management Coach and Mentor Influence Inspirational Leadership Teamwork and Collaboration
Cognitive Competencies	Systems Thinking Pattern Recognition

The data compiled from the students' self-report were measured in each of these areas. The resulting data from this instrument allow a numerical or graphic display (or both) that gives a student an idea about where a score falls on the underlying categories (variables). Therefore, students can see a range of possible scores and where the scores fall according to the range. The results provide students with insight about areas of strength and areas with potential growth opportunities. The instrument's results allow the researcher to determine the levels of different emotional and social competency variables with which students feel they align.

While the developer of the instrument is Boyatzis, The Hay Group provides all information related to this instrument, including past completed studies and marketing material developed for this instrument. The Hay Group released a technical report (Boyatzis & Gaskin, 2010) which describes the factor structure, reliability, and validity of the ESCI-U. The authors specifically tested items to improve the ESCI-U's factor structure. Exploratory analysis, "as a principal components factor (sic) analysis with an oblique rotation, using Promax in SPSS" (p. 6), was completed. The authors found 11 factors with eigenvalues greater than 1 in their initial rotation. The same data were run again, setting the threshold at 14 factors (the authors explained fixing the number of factors for their analysis based upon their a priori assumption of the instrument: "since there were possibly 14 factors" p. 6) and keeping all items $>.300$ loadings. With this setting and a Promax rotation, Boyatzis and Gaskin indicate found that the "items loaded into the scales as 14 separate factors, as expected" (p. 7). These authors further indicated that only three items were removed due to low factor loadings and that a "number of items are being slightly reworded to improve the factor loadings in future analyses" (2010, p. 7).

Boyatzis and Gaskin (2010) then set the factors at 14 again using promax rotation. With an accepted factor loading threshold at $>.300$, 14 factors emerged, representing 59% of the

variance (Boyatzis and Gaskin, 2010). Using this method, the authors found support for the 14 competencies that make up the 5 domains of the instrument. Additionally, Cronbach's alphas were computed (Boyatzis and Gaskin, 2010), and the result of this reliability testing indicated that the ESCI-U showed "improved scale reliability as well as better factor structure" (p. 11).

While Boyatzis and Gaskin (2010) did find improved scale reliability and better factor structure, the ESCI-University edition has not been used as extensively as the industry version of the ESCI. A conservative approach to this instrument is warranted because it is proprietary and there has been no other information related to the reliability and validity offered by the distributors of the instrument, The Hay Group. Therefore, for this dissertation study, it was decided that a good option would be to test the factor structure to determine if it is consistent with the findings of Boyatzis and Gaskin (2010).

ESCI-U factorial validity

For this dissertation study, an exploratory analysis using principal component analysis was completed to determine the validity of the factor structure offered by the author of the instrument. Testing for the factorial validity of the overall construct of the ESCI-U can be useful to determine if the underlying structure aligns with what was proposed by a previous author (Byrne, 2001). Although the overall focus of this dissertation study is not to validate or repudiate this instrument, completing these analyses can be useful to determine if the variables' measures are assessing common items or if the scale items are unidimensional (Coughlin, 2005; Mertler & Vannatta, 2002) and to explore the existing data to determine if the variables align with the grouping proposed previously. One of the common methods for extracting variables is through the method of principal component analysis (PCA; Stevens, 2002) which is commonly

used in an *exploratory* process (Mertler & Vannatta, 2002). PCA was also the type of analysis cited by Boyatzis and Gaskin (2010).

The PCA was completed utilizing SPSS 18. Because Boyatzis' model (Table 4) indicated that there are 14 competencies of the instrument, PCA was first completed utilizing the *a priori* assumption that there would be a total of 14 factors; thus, the number of factors in the extraction was fixed at 14. Varimax rotation was used in order to maximize variance for each factor. The use of varimax rotation is also supported in this study as the factors would later be used in a regression analysis based upon the research questions; varimax rotation is appropriate "for subsequent use in regression or other prediction techniques" (Hair, et al., 1998, p. 110). Boyatzis and Gaskin (2010) utilized an oblique rotation (promax), and offered no explanation for the use of this rotation in their technical report (2010). Promax is a method that is not as common as varimax, and is typically used "if there is some prior belief that the underlying factors are correlated" (Mertler & Vannatta, 2002, p. 9). Promax is also used when "the ultimate goal of the factor analysis is to obtain several theoretically meaningful factors or constructs" (Hair et al., 1998, p. 110).

To determine the appropriate threshold for factor loadings, Hair, et al. (1998) indicated that factor loadings meet the $\pm.30$ "minimum level" (p. 111) of practicality. This is the level that was used by Boyatzis and Gaskin (2010) to support the 14 factor structure of the ESCI-U. Hair, et al. (1998) considered loadings that are $\pm.40$ more important, and loadings of $\pm.50$ or greater "are considered practically significant" (p. 111). However, the use of $.30$ as a threshold for factor loading by Boyatzis and Gaskin (2010) is supported by considering the statistical power based upon the size of the sample; the sample size for their study (2010) was $N = 1,394$. The acceptable factor loading threshold to determine practical significance and considering statistical

power for this dissertation study ($N = 178$) would be approximately .40 (Hair, et al., 1998). With this information, and in the spirit of parsimony, this threshold was used in determining factor loading for this PCA.

When PCA was completed using the above guidelines, the outcome indicated a factor structure of 14 factors that came together in 26 iterations. The 14 fixed factors explained a total cumulative variance of 60.512%. Items in each component were checked for loading (.40 or higher), high cross-loadings ($>.40$), or low communalities ($<.30$; Hair, et al., 1998). Items were compared to expected factor loadings, as presented in the ESCI-U instrument 14 competencies. While 14 factors were retained, only 40 items loaded. Thirty items were removed due to not loading at the .40 level on any factor, cross-loading on more than one factor, or not loading where expected based upon the theory (Table 4).

Eighteen factors actually had eigenvalues > 1 ; these 18 factors are evident on the scree plot (Figure 1). Although Boyatzis and Gaskin found 11 factors with eigenvalues >1 (2010), they had set the number of factors at 14, based upon their a priori understanding of the instrument. With this, they report findings of a fairly neat, clean factor structure with the ESCI-U self-report instrument. The findings in this dissertation study did not align with those of Boyatzis and Gaskin (2010).

The cumulative variance explained in this PCA was found to be at an acceptable level for social science research. Hair et al., (1998) indicated “[in social science research] it is not uncommon to consider a solution that accounts for 60 percent of the total variance” (p. 104). The total variance explained in this PCA was 60.512%. Cronbach’s alpha was used to measure the internal consistency reliability of the items which loaded on each factor. The acceptable levels of this measure range from 0 to 1, with “.60 to .70 deemed the lower limit of

Table 4

Factor Loadings for Varimax Fourteen-Factor Solution for Items of the ESCI-U

	α	Factor													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Factor 1:															
Coach & Mentor	.747														
ESCIU68		.716	.137	-.054	.095	-.014	.111	.149	-.029	.109	.077	.080	.149	-.018	.060
ESCIU17		.664	.105	-.001	.265	.197	.038	-.099	.064	.129	-.134	-.025	.147	.115	-.066
ESCIU16		.508	-.074	.283	.147	.168	.066	.158	.036	.007	.088	.164	.200	.164	-.058
ESCIU57		.463	-.074	.117	.211	.289	.232	.300	-.012	.156	.228	.071	.252	-.080	-.042
Factor 2:	-.010 ^a														
Emotional Self-control															
ESCIU46		.088	.756	.227	.116	.097	.119	.047	-.120	.077	.092	.096	.058	-.062	.100
ESCIU63		.141	.754	.187	.002	.084	.085	-.033	-.106	.007	.249	-.014	.012	-.063	-.036
ESCIU52		.079	.737	.094	-.015	-.031	-.002	.259	.190	.075	.106	.135	-.021	.143	-.040
ESCIU39		.082	.724	.193	.150	-.142	-.050	.034	.005	.065	.139	.048	.062	.204	.019
Factor 3:	.058														
Positive Outlook															
ESCIU11		.193	.130	.640	.122	.027	.088	-.217	-.042	.181	.191	.201	.084	.135	-.022
ESCIU23		.041	.247	.601	.267	-.002	.107	.040	-.009	.065	.088	.071	.011	-.015	-.178
ESCIU47		.090	.282	.571	.061	.029	-.067	.158	.014	.396	.089	.121	-.072	-.015	.134
ESCIU53		-.015	.245	.552	.083	.063	.018	.289	.179	-.034	-.052	-.076	.023	.143	-.151

(continued)

Table 4. Factor Loadings for Varimax Fourteen-Factor Solution for Items of the ESCI-U, (continued)

	α	Factor													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Factor 4:	-.164 ^a														
Teamwork															
ESCIU4		-.075	.041	.210	.680	.100	-.032	.153	.027	-.110	.059	.287	.075	.183	-.078
ESCIU18		.341	-.007	.117	.672	.105	.088	.076	.148	.104	.039	.016	-.089	.068	.095
ESCIU49		.104	.122	.099	.607	.066	.022	.220	.126	.275	.097	-.083	.004	-.073	.072
ESCIU10		-.043	.371	.168	.541	.017	-.150	.196	.128	-.050	-.002	-.033	-.087	.095	-.277
Factor 5:	-.118 ^a														
Influence															
ESCIU31		.147	.105	.054	.161	.678	.013	.020	.139	.115	-.006	.148	.103	.226	.005
ESCIU29		.207	-.037	.015	.147	.456	.233	.274	.073	-.054	-.035	.132	.109	.089	.339
Factor 6:	.228														
Pattern															
Recognition															
ESCIU60		.194	.032	-.028	.079	.143	.754	.008	-.075	.099	.084	.095	.137	-.041	-.015
ESCIU54		.127	.104	.173	-.025	.019	.710	.178	.052	.153	.081	.037	.032	.119	.041
ESCIU13		.009	.146	.166	.030	.088	.500	.118	-.061	-.060	.017	.369	.361	.086	.045
ESCIU32		.060	.095	.009	-.052	.187	.418	-.244	-.073	.304	.019	.261	.233	.330	.120
Factor 7:	-.860 ^a														
Empathy															
ESCIU59		.075	.161	.212	.004	.142	.348	.483	-.043	.090	.361	.040	.025	-.138	-.076
ESCIU28		-.018	.225	.116	.273	.221	.020	.469	.237	-.057	.007	.367	-.093	.002	.051

(continued)

Table 4. Factor Loadings for Varimax Fourteen-Factor Solution for Items of the ESCI-U (continued)

	α	Factor													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Factor 8:	.105														
Emotional Self-Awareness															
ESCIU25		.131	.021	.061	.068	.102	.005	-.005	.766	.109	-.022	-.106	-.042	.046	-.087
ESCIU35		-.201	-.042	.031	.132	.149	.108	.032	.711	-.016	.119	.197	.039	.037	-.113
ESCIU2		.034	-.126	.040	.046	.112	-.115	.261	.632	.022	.011	.188	.256	.040	.129
ESCIU62		.013	.064	.269	.100	.085	.313	.020	.480	-.049	.364	-.172	-.055	.214	.265
ESCIU26		.134	.166	.160	.013	.300	-.232	.025	.425	.124	.013	.200	-.010	-.015	.246
Factor 10:	.361														
Empathy 2															
ESCIU64		.110	.210	.011	-.015	-.058	.051	-.014	.036	-.038	.809	.125	.043	-.105	.142
ESCIU65		-.062	.257	.059	.132	.018	.061	.070	.088	.175	.699	.039	.069	.153	-.009
ESCIU58		.165	.109	.070	.117	.275	.038	.322	.033	.081	.540	.096	.059	-.024	-.254
Factor 11:	-.717 ^a														
Adaptability															
ESCIU14		.109	.125	.095	.060	.183	.118	-.045	.074	.159	.158	.584	.183	.166	-.089
ESCIU5		.099	.238	.251	.202	.069	.059	.175	-.017	.144	.095	.568	.063	-.018	.169
Factor 12:	-.311 ^a														
Systems Thinking															
ESCIU7		.179	.034	.203	-.039	.152	.233	-.049	.033	.099	.003	.083	.642	.040	.013
ESCIU69		.296	-.010	.038	-.017	.228	.205	.181	.057	.156	.164	.126	.572	.077	-.099
ESCIU9		.055	.061	-.052	.153	.116	.139	.311	.331	.218	.125	.070	.436	.054	.126

(continued)

Table 4. Factor Loadings for Varimax Fourteen-Factor Solution for Items of the ESCI-U (continued)

		Factor															
		α	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Factor 13:		.619															
Organizational Awareness																	
ESCIU21			.095	.181	.034	.219	.149	-.036	-.127	.125	.051	-.075	.009	.212	.630	.043	
ESCIU41			.246	.157	.252	.068	.001	.245	.277	.030	-.016	.156	.133	-.098	.534	.194	
ESCIU33			.315	.123	.130	.159	.217	.088	.279	.130	.147	.027	.217	.032	.403	-.130	
																Total	60.51%
																Variance	
																Explained	
Items removed	Expected loading		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
ESCIU66	F13	.591	.211	.034	.087	.103	.237	.165	.003	.007	.118	.093	-.113	.265	.133		
ESCIU56	F-A	.413	.160	.278	-.131	.319	.186	-.064	-.059	.061	.068	.124	.125	-.183	.249		
ESCIU70	F11	.368	.143	.289	.001	.096	.241	-.004	.072	.358	-.061	.289	.240	-.160	.038		
ESCIU45	F2	-.112	.375	.269	.094	.325	.159	.135	.100	.007	.195	.128	.037	.186	.148		
ESCIU22	F-A	.075	.097	.581	.239	.195	.058	.177	.128	.084	-.016	.147	.164	.107	.111		
ESCIU27	F-A	.178	.136	.493	.168	.381	.150	.098	.204	.029	.033	.041	.064	-.293	.097		
ESCIU48	F-A	.009	.153	.457	.246	.036	-.002	.203	.103	.374	.008	-.104	.185	-.042	.200		
ESCIU12	F5	-.029	.100	.409	.049	.149	.120	.217	.042	-.122	.020	.104	.289	.254	.140		
ESCIU3	F-C	.211	.023	.250	.569	.327	.182	.080	-.029	.079	.077	.169	.092	.122	.097		
ESCIU19	F-C	.349	.042	.161	.556	.214	.021	-.075	-.015	.222	.053	.089	.048	.090	.175		
ESCIU30	F-B	.057	-.002	.076	.009	.669	.198	.124	.284	.123	.017	-.030	.162	-.018	-.021		
ESCIU44	F-C	.284	-.149	.188	.244	.574	.063	-.025	-.044	.210	.158	.110	.010	.077	.130		
ESCIU8	F-B	.119	.125	-.017	.337	.525	-.084	.158	.298	-.082	.114	-.056	.186	-.028	-.030		
ESCIU34	F11	.048	.301	.121	.086	.333	.298	.011	.121	.192	-.039	.288	.014	.228	-.114		

(continued)

Table 4. Factor Loadings for Varimax Fourteen-Factor Solution for Items of the ESCI-U (continued)

Items removed	Expected loading	Factor													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
ESCIU20	F12	.354	-.034	.062	.065	.104	.417	-.062	.236	.149	.055	.006	.276	-.084	.074
ESCIU42	F1	.220	.052	.147	.287	.027	-.010	.646	.075	.066	.028	-.085	.156	.049	.037
ESCIU1	F-B	-.029	.175	.149	.369	.003	.068	.476	.187	.132	.045	.091	.263	.115	.131
ESCIU67	F-B	.357	.302	.172	-.166	.214	.035	.399	-.070	.144	.171	.095	-.057	-.006	.053
ESCIU51	F-B	.145	.212	.016	.257	.112	.142	.368	.103	.271	.186	.120	.027	-.029	.227
ESCIU50	F11	.220	.221	-.008	.162	.088	.166	-.014	.005	.563	.154	.163	.147	-.042	.026
ESCIU36	F-A	.125	-.008	.326	.088	.399	.123	-.028	.063	.473	-.071	.230	.062	.017	.000
ESCIU38	F6	.194	.001	.089	-.010	-.027	.299	.066	.143	.413	.056	.360	.287	.176	.175
ESCIU55	F3	-.104	-.027	.297	.092	.239	.032	.244	.025	.409	.076	-.065	.104	.235	-.037
ESCIU37	F4	.280	-.038	.216	.168	.074	.186	.298	.214	.386	-.078	.147	-.268	.055	-.167
ESCIU43	F-C	.300	-.096	.206	.082	.314	.084	.109	.027	.371	.137	.103	.055	.295	.274
ESCIU24	F13	.141	.188	.117	.099	.093	.150	.224	.141	.359	.093	-.162	.054	.061	-.185
ESCIU61	F-C	.388	.096	.185	.329	.231	.185	.062	.151	.020	.406	-.066	.095	.097	-.085
ESCIU15	F12	.233	-.066	-.009	.034	.032	.374	-.007	.260	-.033	.057	.479	.084	-.028	.083
ESCIU6	F5	.230	.033	.174	.159	.090	-.046	.157	.042	-.013	.042	.213	.422	.164	.402
ESCIU40	F5	-.013	.473	-.134	.169	.171	.215	.069	-.060	.149	-.012	-.008	.059	.178	.477

Kaiser-Meyer-Olkin (KMO) .824

^a The value is negative due to a negative average covariance among items which violates reliability model assumptions.

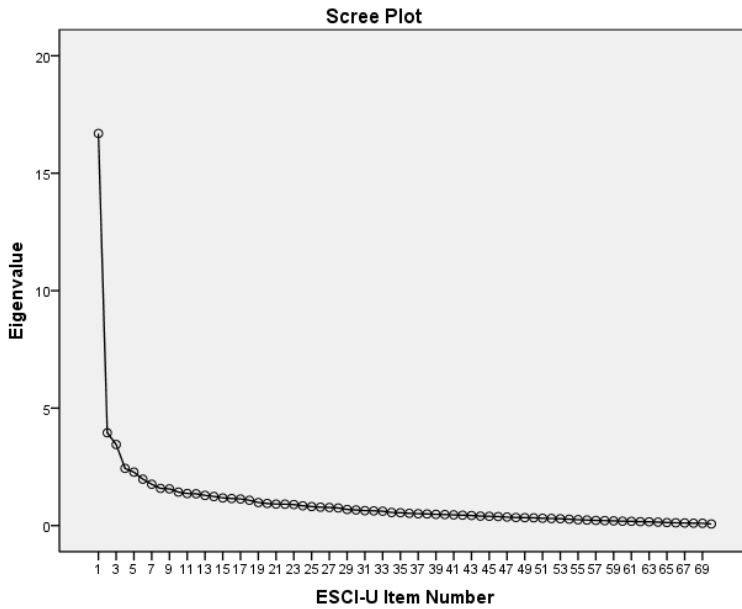


Figure 1. ESCI-U PCA with factors fixed at 14.

acceptability” (Hair et al., 1998, p. 88) Acceptable reliability was in the Coach and Mentor factor ($\alpha = .747$) and the Organizational Awareness factor ($\alpha = .619$), but in no other factors.

The assumptions for internal consistency reliability using alpha reliability testing outline that the parts of the measure must be equivalent (Green & Salkind, 2008). In this instrument, all items were reported on a Likert scale of 1-5 and each of the 14 competencies were to be measured by 5 items. Therefore, the outcome data meets this assumption. Another assumption met is that of error of measurement. This assumption is violated when instruments are measuring cognitive measures that may be a result of “guessing” (Green & Salkind, 2008, p. 327). This instrument overall is not a cognitive related measure; there is less of chance of measurement error due to guessing. While it is clear that some of the items are clearly related and consistent to one another (i.e. Coach & Mentor, Organizational Awareness); several did not indicate internal consistency. While these items are proposed previously to be highly related to

one another (Boyatzis & Gaskin, 2010), it is clear that they are not in this study. Therefore, this 14 factor model does not indicate high enough reliability in all areas to be useful for this study.

This finding was unexpected, especially with the clean competency structure supported by Boyatzis and Gaskin (2010). Certainly, the instrument itself and the supporting documentation that is provided to individuals who use the instrument explain that the 14 competency solution is the best explanation for the model; yet these 14 competencies were not supported in this study. Although the variance explained by the 14 factors was sufficient; the internal consistency reliability was not. Further, many items were dropped from the instrument with this PCA.

Due to these unexpected findings, further study of the instrument structure was warranted. The ESCI-U model (Table 3) indicates that the 14 competencies are organized within 5 domains: Self-Awareness, Self-Management, Social Awareness, Relationship Management and Cognitive Competencies. Because the factor structure did not hold the 14 competency model, it is justified to then consider these 5 domains as the factor structure.

This second PCA was completed utilizing SPSS 18, the number of factors were fixed at 5; aligning with the *a priori* model of 5 domains (Table 3). Varimax rotation was again used in order to maximize variance for each factor. The outcome indicated a factor structure of 5 factors. The 5 fixed factors explained a total cumulative variance of 41.149%. Items in each component were checked for loading (.40 or higher), high cross-loadings (>.40), or low communalities (< .30; Hair, et al., 1998). Items were compared to expected factor loadings, as presented in the ESCI-U instrument 5 domains (Table 5). While 5 factors were retained, only 38 of the 70 items loaded (54%).

Table 5

Factor Loadings for Varimax Five-Factor Solution for Items of the ESCI-U

Factors	α	f ₁	f ₂	f ₃	f ₄	f ₅
Factor 1: Cognitive Competencies	.826					
I identify patterns or trends in seemingly random information		.691	-.006	.174	-.052	-.040
I perceive themes or patterns in events		.625	.128	.153	.145	.084
I interpret a new situation by using an analogy relating it to a different type of situation		.591	.168	-.090	-.028	.274
I perceive similarities among different types of situations		.585	-.037	.220	.101	.171
I see a situation as multiple cause and effect interactions		.578	.113	.099	.107	.013
I see an event as a set of cause and effect relationships		.537	.268	-.031	.214	.209
I use metaphors or analogies to describe themes or patterns		.513	.071	.109	.072	.331
I explain an event in terms of how multiple factors involved affect each other		.499	.275	-.099	.149	.142
I explain complex events through a system of flow diagrams		.492	.084	-.054	.220	.102
Factor 2: Relationship Management	.867					
47 I work well in teams by encouraging the participation of everyone present		-.015	.672	.208	.182	.052
I lead by bringing out the best in people		.173	.637	.286	.030	-.028
I coach and mentor others		.251	.631	.046	-.066	-.002
I personally invest time and effort in developing others		.371	.591	-.032	.157	.306
I lead by building pride in the group		.241	.575	.344	.179	.025
I lead by inspiring people		.344	.556	.121	.141	-.063
I provide on-going mentoring or coaching		.299	.527	-.059	-.145	.328
I work well in teams by encouraging cooperation		-.113	.516	.271	.220	.183
I provide feedback others find helpful for their development		.322	.505	.131	.106	.087
I lead others by creating a positive emotional tone		.182	.503	.130	.197	.374
I care about others and their development		-.067	.447	.168	.294	.294
I work well in teams by soliciting others' input		.127	.424	.187	.192	.090
Factor 3: Self-Management	.826					
I see opportunities rather than threats		.130	.199	.613	-.010	.156
I remain composed, even in trying moments		.156	.048	.599	-.173	.443

(continued)

Table 5. Factor Loadings for Varimax Five-Factor Solution for Items of the ESCI-U (continued)

Factors	α	f ₁	f ₂	f ₃	f ₄	f ₅
Factor 3: Self-Management (continued)						
I see the positive in people, situations, and events more often than the negative		.046	.200	.567	.005	.140
I seek to improve by setting measurable and challenging goals		.231	.287	.540	.266	-.016
I see possibilities rather than problems		.335	.208	.536	-.104	.022
I view the future with hope		-.052	.096	.522	.243	.119
I control impulses for the good of others		.225	.010	.491	.254	.258
I seek ways to do things better		.102	.276	.469	.169	.073
I adapt overall strategy, goals, or projects to cope with unexpected events.		.316	.173	.460	.085	.171
Factor 4: Self-Awareness						
	.719					
I am able to describe how my feelings affect my actions		.073	-.092	.062	.726	.025
I describe underlying reasons for my own feelings		.128	.081	.010	.698	-.019
I show awareness of my own feelings		-.008	.126	.021	.576	.014
I understand the connection between what is happening and my own feelings		.168	.041	.174	.445	.287
Factor 5: Social Awareness						
	.732					
I understand reasons for another's actions		.121	-.029	.015	.018	.662
I understand others by putting myself in their shoes		.199	.160	.131	.152	.582
I understand others' perspective when they are different from my own		.081	.017	.228	.171	.559
I understand others from different backgrounds		.079	.297	.070	.233	.525
Total Variance Explained						41.149%
Items Removed						
		Expected Loading				
I try to resolve conflicts by finding a solution that addresses everyone's interest.	f ₁	.065	.243	.357	.406	.235
I explain how certain things affect others resulting in a particular outcome	f ₁	.304	.176	.059	.480	.228
I work well in teams by being supportive	f ₂	-.089	.355	.433	.291	-.032
I try to resolve conflict by openly talking about disagreements with those involved	f ₂	.004	.392	.100	.484	.125
I work well in teams by being respectful of others	f ₂	-.384	.273	.483	.198	.165
When resolving conflict, I de-escalate the emotions in the situation	f ₂	.205	.253	.213	-.022	.445
I convince others by getting support from key people	f ₂	.369	.350	.044	.306	.056

(continued)

Table 5. Factor Loadings for Varimax Five-Factor Solution for Items of the ESCI-U (continued)

Items Removed (continued)		Expected Loading	f ₁	f ₂	f ₃	f ₄	f ₅
Factors			f ₁	f ₂	f ₃	f ₄	f ₅
	I convince others by developing behind the scenes support	f ₂	.349	.257	.229	.183	.020
	I convince others by appealing to their self-interest	f ₂	.270	.043	.394	.245	.042
	I convince others by engaging them in discussion	f ₂	.321	.358	.232	.330	-.070
	I anticipate how others will respond when trying to convince them	f ₂	.244	.056	.322	-.007	.233
	I lead by articulating a compelling vision	f ₂	.428	.430	.196	.142	.008
	I try to resolve conflict by finding a position everyone involved can endorse	f ₂	.165	.320	.217	.218	.379
	I resolve conflict by bringing it out into the open	f ₂	.351	.247	.030	.470	.026
	I adapt by applying standard procedures flexibly	f ₃	.481	.082	.274	.150	.079
	I adapt by smoothly juggling multiple demands	f ₃	.406	.108	.378	.176	.092
	I initiate actions to improve	f ₃	.442	.327	.321	.136	-.143
	I seek to improve by taking calculated risks to reach a goal	f ₃	.494	.259	.133	-.114	.155
	I act appropriately even in emotionally charged situations	f ₃	-.012	-.005	.625	-.112	.410
	I control impulses appropriately in situations	f ₃	.020	-.064	.530	.098	.518
6	I remain calm in stressful situations	f ₃	.085	-.002	.479	-.224	.546
	I strive to improve my own performance	f ₃	.227	.337	.322	.251	.117
	I believe the future will be better than the past	f ₃	.156	.200	.321	.242	.000
	I adapt to shifting priorities and rapid change	f ₃	.380	.298	.194	-.038	.234
	I understand the informal structure in the team or organization	f ₄	.298	.436	.120	-.064	.345
	I acknowledge my own strengths and weaknesses	f ₄	.122	.149	.269	.372	-.014
	I understand others by listening attentively	f ₅	.003	.191	.357	.441	.223
	I adapt overall strategy, goals or projects to fit the situation	f ₅	.555	.286	.233	-.021	.094
	I understand social networks	f ₅	.186	.161	.348	.164	-.146
	I understand the team's or organization's unspoken rules	f ₅	.097	.259	.179	.147	.276
	I understand the values and culture of the team or organization	f ₅	.254	.383	.291	.238	.140
	I understand the informal processes by which work gets done in the team or organization	f ₅	.266	.195	.360	.103	.265

KMO = .824.

The internal consistency reliability was improved in this PCA over the previous PCA of the 14 competency model. However, even with this improved reliability, thirty-two items were removed (46%) due to failing to load on any factor, cross-loading on more than one factor, or not loading where expected based upon the theory (Table 5). The findings in this study of the 5 domains of the ESCI-U did not align with the model originally described by Boyatzis and Goleman (2007) (Table 2).

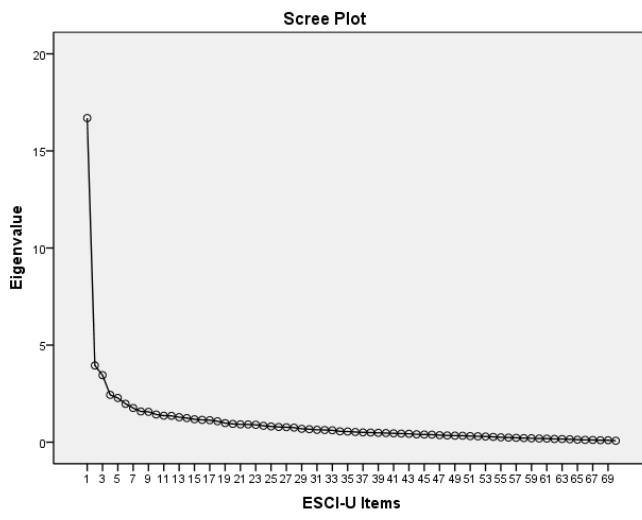


Figure 2. ESCI-U PCA with factors fixed at 5.

With this PCA of the 5 factor structure of the ESCI-U, the reliability is found to be acceptable (Hair, et al., 1998) with all five factors (Table 5). However, 46% of the items tested were dropped with this factor structure. Of the remaining factors, factor 2, relationship management, lost 13 of the 25 items (52%) due to failing to load on the expected factor, not meeting a minimum threshold for loading, or by cross-loading. Factor 3, self-management, only had nine of the expected 20 items load (45%). Factors 4, self-awareness, lost one of the five items (20%) and factor 5, social awareness, lost four items of the ten (60%) attributed to these domains in the model. Instability of the measure was an issue that Boyatzis dealt with in

previous versions of this instrument. He reported, “competency scales do not often appear valid as separate measures” (2006, p. 3). This indicates that the competency scales study may be better utilized as one measure, rather than separate measures.

Hair, et al. (1998) note that “by examining a number of different factor structures derived from several trial solutions, the researcher can compare and contrast to arrive at the best representation of the data” (p. 103). Dropping almost half of an instrument’s items does not appear to be the best representation of this data. Therefore, based on the information Boyatzis has offered (2007) and using the guidance of Hair, et al., (1998), it makes sense to then consider the instrument itself as one single factor. The ESCI-U is an instrument that was designed to measure Emotional and Social Competencies (Boyatzis and Goleman, 2007). PCA was attempted again with the number of factors set at 1 to represent the overarching measure of the instrument, emotional and social competencies.

There was no rotational method employed because of the single factor structure. The findings from this PCA (Table 6) represent 23.848% of the total variance. Only 11 of the 70 items failed to load $>.400$ (16%). Cronbach’s alpha determination of internal consistency reliability was found to be $\alpha = .950$.

Table 6

Factor Loadings for One-Factor Solution for Items of the ESCI-U

Factor 1	f_i
I lead by building pride in the group	0.663
I personally invest time and effort in developing others	0.639
I lead others by creating a positive emotional tone	0.624
I seek to improve by setting measurable and challenging goals	0.617
I understand the values and culture of the team or organization	0.601
I lead by articulating a compelling vision	0.588
I strive to improve my own performance	0.574

(continued)

Table 6. *Factor Loadings for One-Factor Solution for Items of the ESCI-U (continued)*

Factor 1 (continued)	f_i
I adapt overall strategy, goals or projects to fit the situation	0.570
I lead by bringing out the best in people	0.566
I adapt overall strategy, goals, or projects to cope with unexpected events.	0.563
I try to resolve conflict by finding a position everyone involved can endorse	0.560
I provide feedback others find helpful for their development	0.559
I try to resolve conflicts by finding a solution that addresses everyone's interest.	0.552
I lead by inspiring people	0.552
I convince others by engaging them in discussion	0.550
I initiate actions to improve	0.549
I understand the informal processes by which work gets done in the team or organization	0.538
I adapt by smoothly juggling multiple demands	0.537
I see an event as a set of cause and effect relationships	0.537
I understand the informal structure in the team or organization	0.536
I perceive themes or patterns in events	0.533
I control impulses for the good of others	0.532
I work well in teams by encouraging the participation of everyone present	0.530
I see opportunities rather than threats	0.523
I see possibilities rather than problems	0.515
I convince others by getting support from key people	0.512
I adapt to shifting priorities and rapid change	0.511
I explain how certain things affect others resulting in a particular outcome	0.510
I seek ways to do things better	0.509
I understand others by listening attentively	0.501
I understand others by putting myself in their shoes	0.497
I adapt by applying standard procedures flexibly	0.496
I remain composed, even in trying moments	0.493
I convince others by developing behind the scenes support	0.491
I understand others from different backgrounds	0.487
I resolve conflict by bringing it out into the open	0.486
I work well in teams by encouraging cooperation	0.486
When resolving conflict, I de-escalate the emotions in the situation	0.486
I use metaphors or analogies to describe themes or patterns	0.484
I care about others and their development	0.483
I work well in teams by soliciting others' input	0.475
I perceive similarities among different types of situations	0.473
I seek to improve by taking calculated risks to reach a goal	0.466
I provide on-going mentoring or coaching	0.464
I try to resolve conflict by openly talking about disagreements with those involved	0.461

(continued)

Table 6. Factor Loadings for One-Factor Solution for Items of the ESCI-U (continued)

Factor 1 (continued)	f_i
I coach and mentor others	0.461
I see the positive in people, situations, and events more often than the negative	0.458
I convince others by appealing to their self-interest	0.448
I control impulses appropriately in situations	0.446
I explain an event in terms of how multiple factors involved affect each other	0.445
I work well in teams by being supportive.	0.442
I see a situation as multiple cause and effect interactions	0.438
I understand the connection between what is happening and my own feelings	0.436
I interpret a new situation by using an analogy relating it to a different type of situation	0.425
I believe the future will be better than the past	0.422
I understand the team's or organization's unspoken rules	0.416
I understand others' perspective when they are different from my own	0.409
I view the future with hope	0.403
I act appropriately even in emotionally charged situations	0.402
	Total Variance Explained 23.85%
Items Removed	Loading
I identify patterns or trends in seemingly random information	0.398
I acknowledge my own strengths and weaknesses	0.391
I remain calm in stressful situations	0.389
I anticipate how others will respond when trying to convince them	0.387
I explain complex events through a system of flow diagrams	0.372
I understand social networks	0.354
I describe underlying reasons for my own feelings	0.335
I work well in teams by being respectful of others	0.312
I understand reasons for another's actions	0.284
I show awareness of my own feelings	0.268
I am able to describe how my feelings affect my actions	0.267

KMO = .824

While the 23.848% of cumulative variance explained is not desirable, it does allow for as many factors as necessary (one) to represent the most variables. This is described as an alternative method to ensure the practical significance of the instrument, rather than only basing practical significance upon cumulative percentage of variance explained (Hair, et al., 1998).

Although this study was not focused on validating the ESCI-U instrument, the outcome of the principle component analyses suggested that the factor structure of this instrument could benefit from further study. The factorial validity of the instrument, when factored by the 5 a priori domains or the 14 a priori competencies, does not hold together as well as preferred. However, the one factor solution indicates a high level of internal consistency reliability. Therefore, adequate support exists for using the one-factor ESCI-U for this dissertation study.

Revised Academic Hardiness Scale Reliability and Validity

The Revised Academic Hardiness Scale (RAHS) is an 80-item instrument that measures the total score of a student's "hardiness" based on the three underlying criteria of commitment/control-effort, challenge, and control-affect with a Likert-type, four-point scale (Benishek et al., 2005). These hardiness criteria were first established by Kobasa (1979). Benishek and Lopez (2001) updated the criteria to measure academic hardiness, and the Academic Hardiness Scale (AHS) was created to measure student hardiness. Benishek and Lopez entered this research trying to determine why some students generally avoid challenging coursework and do whatever it takes to avoid difficult classes that may lower their grade point averages. The authors also wondered about students who would leave universities or fail their classes. The Academic Hardiness Scale, as originally developed, was based on the three indicators of hardiness originally defined by Kobasa (1979): control, commitment, and challenge. Later, Benishek and Lopez expanded their instrument and suspected that "control" was actually a measure of two different ideas: control-affect (how well emotions are controlled when a student is under duress) and control of effort (how much effort a student puts forth in this capacity).

The RAHS instrument is used for learning-assessment purposes in the College of Business. The instrument is “designed to assess cognitive, motivational and affective self-perceptions experienced by students when faced with academic challenges” (Benishek et al., 2005, p. 71). Each of these separate criteria can be sorted from the students’ responses and reported to the students in much the same way as the ESCI-U. The outcomes of such assessment during a student’s academic career can “be used to develop and implement strategically designed educational plans to capitalize on students’ strengths and to develop skills geared towards addressing the weaker domains” (Benishek et al., 2005, p. 74).

RAHS reliability

The published research that describes the creation of the RAHS as well as subsequent usage of this instrument indicates that adequate reliability and validity are found in all areas of potential threats. Researchers report the internal consistency reliability of the instrument as listed in Table 7 (Benishek et al., 2005). The results of this study (2013) are also in Table 7, indicating adequate reliability.

Table 7

Cronbach’s Alpha RAHS (Benishek et al., 2005) and Current Study (2013)

	Benishek et al. (2005)	Current Study (2013)
<u>Factor</u>	<u>α</u>	<u>α</u>
Commitment	.91	.92
Control-Effort	.91	.89
Control-Affect	.81	.88
Challenge	.88	.87

RAHS validity

The items on the Revised Academic Hardiness scale were first developed and tested based on Kobasa's (1979) theory of hardiness. The statements were created utilizing a deductive model of scale development, wherein members of the research team generated items that would appropriately represent the four factors that they were testing (Benishek et al., 2005). Further, discriminant validity was indicated, as low correlations "between the RAHS and a dissimilar measure" were found (p. 70). Further validity testing was completed in the form of convergent validity; support for convergent validity of this instrument was found by Benishek et al. (2005) through correlating the composite score of the RAHS and another instrument's construct that was deemed similar (cognitive risk tolerance).

Procedures

This study was completed with data collected from 178 students in a first-year experience course in the College of Business at North Dakota State University. The data were collected for assessment purposes during the Fall 2010 academic semester from students in the introductory course (BUSN 189) that all College of Business students are required to take during their first year at NDSU. Participants completed several instruments related to assessment; two of these instruments were the Emotional and Social Competency Instrument-University Edition (ESCI-U) and the Revised Academic Hardiness Scale (RAHS).

Due to the length of the assessment instruments, there was concern for possible survey fatigue of the participants. To attempt to alleviate potential validity concerns related to this, the instrument itself was broken up into several small sections with a brief explanation between sections, informing students what they have just completed as requesting that they stand up and stretch at that time. Further, it was explained throughout the instrument that it was important that

the students remained alert because they would be receiving feedback about their results, and this feedback will only be useful if the information they provided was accurate (see Appendix).

Further, an indicator which showed elapsed progress ran along the header of the page during the survey, so students could get a sense of how far along they were and how much to go until they were completed with the instrument.

After the students completed the online instruments, the data were downloaded from Survey Monkey directly into an Excel spreadsheet. The data collected from these instruments were analyzed and discussed in each section of the course, later in the semester. Each student was provided a profile of their own self-reported responses on these two instruments, which also included a profile of the mean scores of the entire course responses.

Data Analysis

Student names were removed from the data prior this researcher's use, and the data were analyzed using the statistical software SPSS 18 after the Institutional Review Board at North Dakota State University deemed that the data provided for this study were not human subject's data and, therefore, could be used freely for this study. Once initial analyses were completed, descriptive statistics were reported. Such data reporting included means and standard deviation which help describe the sample and the responses as well as the spread of responses from the means. Regression analysis was completed in order to answer the research questions and test the hypotheses as follows.

Research Questions and Hypotheses

This study had two main research questions: can components of academic hardiness (AH) predict student success or persistence? Further, can a student's level of emotional and social

competency predict success or persistence? The null hypotheses derived from these research questions are as follows:

H₀₁: AH commitment is not a predictor of a student's GPA.

H₀₂: AH control-effort is not a predictor of a student's GPA

H₀₃: AH control-affect is not a predictor of a student's GPA

H₀₄: AH challenge is not a predictor of a student's GPA

H₀₅: AH commitment is not a predictor of a student's persistence

H₀₆: AH control-effort is not a predictor of a student's persistence

H₀₇: AH control-affect is not a predictor of a student's persistence

H₀₈: AH challenge is not a predictor of a student's persistence

H₀₉: Emotional and social competencies (as measured by the composite score of the ESCI-U) are not a predictor of a student's GPA.

H₀₁₀: Emotional and social competencies (as measured by the composite score of the ESCI-U) are not a predictor of a student's persistence.

The alternative hypotheses are as follows:

H₁: AH commitment is a predictor of a student's GPA.

H₂: AH control-effort is a predictor of a student's GPA

H₃: AH control-affect is a predictor of a student's GPA

H₄: AH challenge is a predictor of a student's GPA

H₅: AH commitment is a predictor of a student's persistence

H₆: AH control-effort is a predictor of a student's persistence

H₇: AH control-affect is a predictor of a student's persistence

H₈: AH challenge is a predictor of a student's persistence

H₉: Emotional and social competencies (as measured by the composite score of the ESCI-U) are a predictor of a student's GPA.

H₁₀: Emotional and social competencies (as measured by the composite score of the ESCI-U) are a predictor of a student's persistence.

To answer the research questions and to test the hypotheses, the scores of the separate hardiness scales (challenge, commitment, control-affect, and control-effort) were regressed with the student's cumulative GPA as the dependent variable (DV). Regression analyses were also completed to test the predictive quality of the components of the RAHS with the dichotomous DV indicating whether the student persisted to the following semester. For the remaining hypotheses, ESCI-U composite scores were regressed with students' GPA as the DV and also completed with the ESCI-U composite score and the dichotomous DV of persistence.

CHAPTER 4. RESULTS

Chapter 4 provides the results of the statistical testing and analysis which were outlined in Chapter 3 of this disquisition. Restatement of the purpose, review of the instruments used, demographic data of the population, research questions and hypotheses, and a summary of findings are included in this chapter.

Restatement of the Purpose

The purpose of this study was to determine if academic hardiness or social and emotional competencies would predict student success (as measured by GPA) and student persistence. These constructs may help employers identify potential employees who can be interpersonally successful and persist in their organization. If the constructs, or components of the constructs, can predict a student's academic success or persistence, this outcome may be an indication that these constructs need to be addressed in post-secondary educational settings.

This study is based on the constructs of academic hardiness (Benishek et al., 2005) and emotional and social competencies (Boyatzis & Goleman, 2007). Relationships between students' social and emotional competencies, their GPA, and their persistence, were examined and are discussed later in this chapter. Further, relationships between students' four scale scores of Academic Hardiness were examined in relation to GPA and persistence.

Sample

This study was completed with data collected from 178 students in a first-year experience course in the College of Business at North Dakota State University. While there was one sample of students for this study (N=178), there were two distinct groups of students in the sample. One group consisted of students who were part of a learning community (LC) in a residence hall on campus (n=76). The LC was specifically for majors in the College of Business. The other group

of students was those who had different living arrangements, whether on-campus, off-campus, in a residence hall, or at fraternity/sorority house (n=102). For this study, the data from these students were compiled in one group and were referred to as “other” living option.

The demographic data that were collected from the students included age, sex, and race/ethnicity. Because this course is mandatory for first-year business students at North Dakota State University, the assumption was made that the population of students for this study was ranked as freshmen. In fact, 97.2% of the students who were in the population identified themselves as freshmen, and 91% identified their race as Caucasian. Males comprised 57.9% of the population, and females were 42.1%. The age of the population represented an expected distribution with 93.9% between age 18 and 19. The group was rather homogenous in nature and was representative of the area where the school is located. There were 178 total students (cases) included in the assessment data (N = 178).

Research Questions and Hypothesis Testing

This study had two main research questions: can components of academic hardiness (AH) predict student success or persistence? Further, can a student’s level of emotional and social competency predict success or persistence? Ten null hypotheses were derived from these research questions.

There were two instruments that aligned with the research questions in this study. As reported in Chapter 3, Methodology, the ESCI-U outcomes were tabulated from the instrument as one measure. This single ESCI-U measure was used in testing the appropriate hypotheses below. The Revised Academic Hardiness Scale (Benishek, et al., 2005) is an instrument that is comprised of four separate scales: commitment, control-effort, control-affect, and challenge. Therefore, prior to testing the hypotheses by regressing these singular items of the RAHS, it is

appropriate to first determine if these items are at all correlated (Green & Salkind, 2008), and if there is in fact a linear relationship between these items. Descriptive statistics and the correlation coefficients are reported in Tables 8 and 9.

Table 8

Intercorrelations for Persistence and RAHS

Variable	1	2	3	4	5
1. Persistence	-				
2. RAHS – Commitment	.196*	-			
3. RAHS – Control-Effort	.049	.643**	-		
4. RAHS – Control-Affect	.088	.267**	.443**	-	
5. RAHS – Challenge	.103	.480**	.459**	.452**	-

Note: Persistence coded as 1 = continuing student, 0 = did not enroll in Spring semester. Living arrangement 1 = Learning Community, 0 = Other. * $p < .01$, ** $p < .001$.

Table 9

Means, Standard Deviations, and Intercorrelations for Cumulative GPA

Variable	Mean	SD	1	2	3	4
Cumulative GPA	2.53	0.95	.532**	.363**	.191*	.272**
Predictor Variable						
1. RAHS – Commitment	59.13	9.07	-	.643**	.267**	.480**
2. RAHS – Control-Effort	60.93	7.79		-	.443**	.459**
3. RAHS – Control-Affect	52.21	8.11			-	.452**
4. RAHS – Challenge	51.81	7.50				-

Prior to testing the null hypothesis, it is pertinent to note that while the sample of students were all enrolled in the same course, there were two distinct living arrangements. In section one ($n = 76$), the students all resided together in a business learning community (LC). Students in the second section ($n = 102$) lived in various residence halls or off campus while they were taking this course. Hunter (2011) previously studied the same sample of students that was used in this

dissertation study. Her findings indicate that the residing in the learning community (LC) had a significant impact on a student's grades in the course. Consideration for this finding was included in this study by controlling for the living arrangement by creating a dummy variable (Dummy LA). This new variable was coded to separate the LC from other (1, 0). While notation of this variable has not been included in the hypotheses and null hypotheses, it is mentioned at this time to ensure that it was controlled for within each of the following hypotheses tests. It is fully described in first test and from there only brief mention, to avoid redundancy for the reader.

Null Hypothesis One: RAHS – Commitment is Not a Predictor of a Student's GPA

There were essentially two groups in the sample; one consisted of students who lived in a learning community (LC, $n = 76$). Hunter (2011) found that, with this specific group, the living arrangement was positively correlated with the GPA. Therefore, to test this hypothesis, multiple regression was conducted while controlling for the living arrangement by creating a dummy variable (Dummy LA). This new variable was coded to separate the LC from other (1, 0), and was the first step in the hierarchical regression. The second step of the included GPA, using the "enter" method. RAHS – commitment was then entered as the next independent variable (IV), with student cumulative GPA again as the dependent variable (DV). The results from this regression indicate that the overall model significantly predicts student cumulative GPA. Before the DV of cumulative GPA entered the model, it was evident that living in the learning community (LC, coded as DummyLA for this regression model) was significant. A summary of the hierarchical regression is presented in Table 10 and indicates that RAHS – commitment was a significant predictor of a student's cumulative GPA, even when controlling for living arrangement ($\beta = .515, t = 7.940, p < .000$).

Table 10

Hierarchical Regression Analysis RAHS – Commitment Predicting Cumulative GPA

Step and Predictor Variable	B	SE B	β	R^2	ΔR^2	p
Step 1:				.034	.029	.013
Constant	2.374	.093				.000
Dummy LA	.357	.143	.186			.013
Step 2:				.290	.282	.000
Constant	-.751	.402				.063
Dummy LA	.166	.125	.086			.187
RAHS – commitment	.054	.007	.515			.000

Note: N=178.

All tolerances were $< .1$, indicating that multicollinearity was not violated (Mertler & Vannatta, 2002). The findings indicate that once the DV of cumulative GPA was entered as a variable, living in the LC no longer was significant to the model. This indicates that the model is significant without controlling for LC, and therefore, a linear regression analysis was completed between the independent variable of RAHS – commitment and cumulative GPA (Table 11).

Table 11

Linear Regression Analysis RAHS – Commitment Predicting Cumulative GPA

Predictor Variable	B	SE B	β	R^2	ΔR^2	p
Constant	-.784	.402		.283	.279	.000
RAHS – commitment	.056	.007	.532			.000

Note: N=178.

This model was statistically significant ($p < .000$) and accounted for 28% of variance in a student's cumulative GPA. The null hypothesis was therefore rejected, because RAHS – commitment was found to be a predictor of cumulative GPA for the sample regardless of living arrangement.

Null Hypothesis Two: RAHS –Control-Effort is Not a Predictor of a Student’s GPA

Since the same sample of students was investigated with this hypothesis test, controlling for the living arrangement was again completed in the methodology. Regression results indicate that the overall model significantly predicts student cumulative GPA, accounting for 15.9% of variance in a student’s cumulative GPA. A summary of the regression is presented in Table 12 and indicates that both the living arrangement and RAHS – control-effort significantly contributed to the model.

Table 12

Hierarchical Regression Analysis RAHS – Control-Effort Predicting Cumulative GPA

Step and Predictor Variable	B	SE B	β	R^2	ΔR^2	p
Step 1:				.034	.029	.013
Constant	2.374	.093				.000
Dummy LA	.357	.143	.186			.013
Step 2:				.159	.150	.000
Constant	-.256	.523				.625
Dummy LA	.321	.134	.167			.017
RAHS-control-effort	.043	.009	.354			.000

Note: N=178.

RAHS –control-effort was found to be significant to the model ($\beta = .354, t = 5.102, p < .000$) with the sample, even when controlling for the living arrangement. All tolerances were < 1 , indicating that multicollinearity was not violated (Mertler & Vannatta, 2002). The null hypothesis was rejected; RAHS – control-effort was found to be a predictor of cumulative GPA.

Null Hypothesis Three: RAHS – Control-Affect is Not a Predictor of a Student’s GPA

Since the same sample of students was investigated with this hypothesis test, controlling for the living arrangement was again completed in the methodology. Regression results indicate

that the overall model significantly predicts student cumulative GPA. The model accounts for 7.6% of variance in a student’s cumulative GPA. A summary of the regression is presented in Table 13 and indicates that both the living arrangement and RAHS – control-affect significantly contributed to the model.

Table 13

Hierarchical Regression Analysis RAHS – Control-Affect Predicting Cumulative GPA

Step and Predictor Variable	B	SE B	β	R^2	ΔR^2	p
Step 1:				.034	.029	.013
Constant	2.374	.093				.000
Dummy LA	.357	.143	.186			.013
Step 2:				.076	.066	.001
Constant	1.098	.461				.018
Dummy LA	.386	.140	.201			.007
RAHS–control-affect	.024	.009	.205			.005

Note: N=178.

RAHS – control-affect was found to be significant to the model ($\beta = .205, t = 2.821, p = .005$) with the sample, even when controlling for the living arrangement. All tolerances were < 1, indicating that multicollinearity was not violated (Mertler & Vannatta, 2002). The null hypothesis was rejected; RAHS – control-affect was found to be a predictor of cumulative GPA.

Null Hypothesis Four: RAHS – Challenge is Not a Predictor of a Student’s GPA

The same sample of students was investigated with this hypothesis test, controlling for the living arrangement was again completed in the methodology. Regression results indicate that the overall model significantly predicts student cumulative GPA. The model accounts for 11.6% of variance in a student’s cumulative GPA. A summary of the regression is presented in Table

14 and indicates that both the living arrangement and RAHS – challenge significantly contributed to the model.

Table 14

Hierarchical Regression Analysis RAHS – Challenge Predicting Cumulative GPA

Step and Predictor Variable	B	SE B	β	R^2	ΔR^2	p
Step 1:				.034	.029	.013
Constant	2.374	.093				.000
Dummy LA	.357	.143	.186			.013
Step 2:				.116	.106	
Constant	.466	.482				.335
Dummy LA	.395	.137	.206			.004
RAHS–challenge	.036	.009	.287			.000

Note: N=178.

RAHS – challenge was found to be significant to the model ($\beta = .287, t = 4.023, p < .000$) with the sample, even when controlling for the living arrangement. All tolerances were < 1 , indicating that multicollinearity was not violated (Mertler & Vannatta, 2002). The null hypothesis was rejected; RAHS –challenge was found to be a predictor of cumulative GPA.

Null Hypothesis Five: RAHS – Commitment is Not a Predictor of a Student’s Persistence

Persistence data were reported in the dataset as a “Y” which indicated that the student enrolled for the following semester or “N” which indicated that a student did not enroll the following semester. This dependent variable was re-coded as dichotomous (Y = 1, N = 0). Because of the dichotomous nature of the variable, binary logistic regression was used to determine which independent variables of the RAHS predicted persistence.

A new variable was created and coded in order to control for the living arrangement of the student. The LC group of students was coded differently than the other group (1, 0), and this

was the first variable in the regression model, using the “enter” method. The RAHS – commitment variable was then added as the second covariate to this regression model. Because there was only one variable, the enter method was used. Regression results indicate the overall model of the two predictors was statistically reliable in distinguishing those students who persisted ($-2 \text{ Log Likelihood} = 112.585; \chi^2(2) = 8.329, p \geq .016$). The findings of this regression are presented in Table 15. RAHS – commitment was found to be a significant predictor of a student’s persistence, even when controlling for living arrangement. This finding rejects the null hypothesis.

Null Hypothesis Six: RAHS – Control-Effort is Not a Predictor of a Student’s Persistence

Persistence data were reported in the dataset as a “Y” which indicated that the student enrolled for the following semester or “N” which indicated that a student did not enroll the following semester. This dependent variable was re-coded as dichotomous (Y = 1, N = 0). Because of the dichotomous nature of the variable, binary logistic regression was used to determine which independent variables of the RAHS predicted persistence.

Table 15

Logistic Regression Analysis RAHS – Commitment Predicting Persistence

Step and Predictor Variable	B	SE B	OR	95% CI	Wald statistic	p
Step 0:						
Constant	2.124	.243	8.368		76.600	.000
Step 1:						.118
Dummy LA	.815	.545	2.259	[.777, 6.572]	2.237	.135
Constant	1.838	.288	6.286		40.816	.000
Step 2:						.016
Dummy LA	.613	.557	1.846	[.620, 5.503]	1.211	.271
RAHS–commitment	.069	.030	1.072	[1.011, 1.136]	5.480	.019
Constant	-2.040	1.635	.130		1.558	.130

Note: N=178.

Controlling for the living arrangement was again completed in the methodology.

Regression results indicate the overall model was not reliable in distinguishing those students who persisted (-2 Log Likelihood = 118.123; $\chi^2(2) = 2.791, p \geq .248$). The findings of this regression are presented in Table 16. RAHS – control-effort was not found to be a significant predictor of a student’s persistence, even when controlling for living arrangement. This finding supports the null hypothesis.

Null Hypothesis Seven: RAHS – Control-Affect is Not a Predictor of a Student’s Persistence

Persistence data were reported in the dataset as a “Y” which indicated that the student enrolled for the following semester or “N” which indicated that a student did not enroll the following semester. This dependent variable was re-coded as dichotomous (Y = 1, N = 0). Because of the dichotomous nature of the variable, binary logistic regression was used to determine which independent variables of the RAHS predicted persistence.

Table 16

Logistic Regression Analysis RAHS – Control-Effort Predicting Persistence

Step and Predictor Variable	B	SE B	OR	95% CI	Wald statistic	p
Step 0:						
Constant	2.214	.243	8.368		76.600	.000
Step 1:						.118
Dummy LA	.815	.545	2.259	[.777, 6.572]	2.237	.135
Constant	1.838	.288	6.286		40.816	.000
Step 2:						.248
Dummy LA	.803	.546	2.232	[.766, 6.502]	2.166	.141
RAHS–control-effort	.019	.033	1.019	[.956, 1.087]	.338	.561
Constant	.693	1.980	1.999		.122	.726

Note: CI = Confidence interval for Odds Ratio (OR), N=178.

The living arrangement of the student was again controlled for in the methodology. The RAHS – control-affect variable was then added as the second covariate to this regression model. Because there was only one variable, the enter method was used again to enter commitment to the regression model. Regression results indicate the overall model was not reliable in distinguishing those students who persisted (-2 Log Likelihood = 116.802; $\chi^2(2) = 4.112, p \geq .128$). The findings of this regression are presented in Table 17. RAHS – control-affect was not found to be a significant predictor of a student’s persistence, even when controlling for living arrangement. This finding supports the null hypothesis.

Null Hypothesis Eight: RAHS – Challenge is Not a Predictor of a Student’s Persistence

Persistence data were reported in the dataset as a “Y” which indicated that the student enrolled for the following semester or “N” which indicated that a student did not enroll the following semester. This dependent variable was re-coded as dichotomous (Y = 1, N = 0). Because of the dichotomous nature of the variable, binary logistic regression was used to determine which independent variables of the RAHS predicted persistence.

Table 17

Logistic Regression Analysis RAHS – Control-Affect Predicting Persistence

Step and Predictor Variable	B	SE B	OR	95% CI	Wald statistic	p
Step 0:						
Constant	2.124	.243	8.368		76.600	.000
Step 1:						.118
Dummy LA	.815	.545	2.259	[.777, 6.572]	2.237	.135
Constant	1.838	.288	6.286		40.816	.000
Step 2:						.128
Dummy LA	.870	.549	2.387	[.813, 7.007]	2.506	.113
RAHS–control-affect	.039	.030	1.040	[.980, 1.103]	1.667	.197
Constant	-.170	1.556	.843		.012	.913

Note: CI = Confidence interval for Odds Ratio (OR), N=178.

Continuing to control for the living arrangement of the student, regression results indicate the overall model was not reliable in distinguishing those students who persisted (-2 Log Likelihood = 116.104; $\chi^2(2) = 4.811, p \geq .090$). The findings of this regression are presented in Table 18. RAHS – challenge was not found to be a significant predictor of a student’s persistence, even when controlling for living arrangement. This finding supports the null hypothesis.

Table 18

Logistic Regression Analysis RAHS – Challenge Predicting Persistence

Step and Predictor Variable	B	SE B	OR	95% CI	Wald statistic	<i>p</i>
Step 0:						
Constant	2.124	.243	8.368		76.600	.000
Step 1:						.118
Dummy LA	.815	.545	2.259	[.777, 6.572]	2.237	.135
Constant	1.838	.288	6.286		40.816	.000
Step 2:						.090
Dummy LA	.897	.553	2.451	[.829, 7.244]	2.630	.105
RAHS – challenge	.052	.034	1.053	[.985, 1.126]	2.311	.128
Constant	-.833	1.751	.435		.226	.634

Note: CI = Confidence interval for Odds Ratio (OR), N=178.

Null Hypothesis Nine: Emotional and Social Competencies (as Measured by the Composite Score of the ESCI-U) are Not a Predictor of a Student’s GPA

The regression analysis used ESCI-U composite score (composite of the 59 factors that loaded on the one factor model of the ESCI-U as noted in Chapter 3) as the independent variable (IV), with student cumulative GPA as the dependent variable (DV). Regression results indicate that the overall model significantly predicts student cumulative GPA. This model accounted for 7.6% of variance in a student’s cumulative GPA. A summary of the regression is presented in

Table 19 and indicates that ESCI-U was a significant predictor of a student’s cumulative GPA, even when controlling for living arrangement. Therefore, the null hypothesis is rejected.

Table 19

Hierarchical Regression Analysis ESCI-U Predicting Cumulative GPA

Step and Predictor Variable	B	SE B	β	R^2	ΔR^2	p
Step 1:				.034	.029	.013
Constant	2.374	.093				.000
Dummy LA	.357	.143	.186			.013
Step 2:				.076	.066	.001
Constant	.680	.607				.264
Dummy LA	.382	.140	.198			.007
ESCI-U	.008	.003	.205			.005

Note: N=178.

Null Hypothesis Ten: Emotional and Social Competencies (as Measured by the Composite Score of the ESCI-U) are Not a Predictor of a Student’s Persistence.

Regression results indicate the overall model of the two predictors was not reliable in distinguishing those students who persisted (-2 Log Likelihood = 118.198; $\chi^2(2) = 2.716$, $p \geq .257$). The findings of this regression are presented in Table 20. The null hypothesis is supported; emotional and social competencies were not found to be a significant predictor of a student’s persistence, even when controlling for living arrangement.

Summary of Hypothesis Testing

This study set out to answer the following research questions: can components of academic hardiness (AH) predict student success or persistence? Further, can a student’s level of emotional and social competency predict success or persistence? Ten hypotheses were tested; the outcomes of these are summarized in Table 21.

Table 20

Logistic Regression Analysis ESCI-U Predicting Persistence

Step and Predictor Variable	B	SE B	OR	95% CI	Wald statistic	<i>p</i>
Step 0:						
Constant	2.124	.243	8.368		76.600	.000
Step 1:						.118
Dummy LA	.815	.545	2.259	[.777, 6.572]	2.237	.135
Constant	1.838	.288	6.286		40.816	.000
Step 2:						.257
Dummy LA	.831	.546	2.296	[.787, 6.697]	2.317	.128
ESCI-U	.005	.010	1.005	[.986, 1.024]	.267	.605
Constant	.752	2.111	2.121		.127	.722

Note: CI = Confidence interval for Odds Ratio (OR), N=178.

Table 21

Null Hypotheses and Outcomes

Null Hypotheses	Outcome
H ₀₁ : RAHS – commitment is not a predictor of a student’s GPA.	Rejected
H ₀₂ : RAHS – control-effort is not a predictor of a student’s GPA.	Rejected
H ₀₃ : RAHS – control-affect is not a predictor of a student’s GPA.	Rejected
H ₀₄ : RAHS – challenge is not a predictor of a student’s GPA.	Rejected
H ₀₅ : RAHS – commitment is not a predictor of a student’s persistence.	Rejected
H ₀₆ : RAHS – control-effort is not a predictor of a student’s persistence.	Supported
H ₀₇ : RAHS – control-affect is not a predictor of a student’s persistence.	Supported
H ₀₈ : RAHS – challenge is not a predictor of a student’s persistence.	Supported
H ₀₉ : Emotional and social competencies are not a predictor of a student’s GPA.	Rejected
H ₀₁₀ : Emotional and social competencies are not a predictor of a student’s persistence.	Supported

CHAPTER 5. DISCUSSION AND RECOMMENDATIONS

Companies spend billions of dollars on training and development of employees (Paradise, 2007); yet new hires are often unsuccessful in their jobs because of interpersonal difficulties (M. Murphy, 2012, Lozada, 1996). It is difficult for companies to achieve a high rate of return-on-investment (ROI) when such training does not assure that employees can be interpersonally successful or persist within the organization. Companies want to hire individuals who possess the interpersonal skills and those who will persist in the organization to increase the ROI of their training and development of employees.

Meanwhile, there is a considerable gap between the foci of learning in higher education (Weber, et al., 2009) and what industry is demanding (Trauth, et al., 1993; Muir, 2004; Liptak, 2005; Tucker, et al., 2000). Higher education institutions have primarily targeted increasing logical and linguistic intelligence (Gardner, 1983) and have taught students skills that align with these outcomes. However, employers now understand that employees are emotional beings, thus are seeking to hire graduates who have ample interpersonal skills, are life-long learners, and who will persist (Carnevale, 2008). This gap has remained between higher education and industry, predicating that industry will have to continue to spend copious amounts of resources unless institutions of higher education are willing to include some of these interpersonal competencies and attitudes to student learning outcomes. Higher education institutions can do this by developing and measuring student learning outcomes that align with higher education needs while concurrently meeting the demands of industry.

GPA and persistence are two indicators that higher education currently uses to measure student and institutional success (Tinto, 1999). While these two indicators are measured by student coursework outcomes and registration data, the possibility exists these indicators can be

predicted by some of the same skills that industry is requesting. This research investigated the existence of a predictive relationship between first-year student's emotional and social competencies, and components of academic hardiness as related to first-year students' academic success and persistence. If these constructs, or attributes of these constructs, were found to predict academic success and persistence, institutions of higher education could benefit from incorporating these attributes in the curriculum as they would be aligned with measuring student success and persistence. The additional benefit would be that students are then learning the interpersonal skills that employers are seeking and students would be better prepared to succeed in their career.

Ten hypotheses were developed, each to determine the predictive value of emotional and social competencies and components of academic hardiness to student academic success and persistence. This study utilized historical data that was collected as part of an assurance of learning project at the College of Business at North Dakota State University. The sample of student data used for this study was derived from first-year students who were enrolled in a fall semester, first-year experience course in the College of Business. There were a total of 178 participants in the sample. Of the total sample, 58% were male and 42% were female, the majority were white (91%) and between the age of 18-19 years old at the time of the data collection. This sample is representative of the area of the United States in which the College is located. Of the total sample (N = 178), 76 (42.7%) were students who were living in a Business learning community (LC) at the time of data collection. The remainder of the students (n = 102) lived in various living arrangements both off and on campus.

Data were collected via an electronic survey that was comprised from two instruments. The instruments that were utilized for this study included the Emotional and Social Competency

Instrument – University edition (ESCI-U; Boyatzis and Goleman, 2007) and the Revised Academic Hardiness Scale (RAHS; Benishek et al., 2005). These instruments are self-report instruments and both used Likert-type scales that provided interval data. In addition to the ESCI-U and RAHS, additional data including cumulative GPA, persistence data, and living arrangement of students were studied.

The ESCI-U consisted of 70 statements which were organized into five separate domains: self-awareness, self-management, social awareness, relationship management and cognitive competencies. Each domain was comprised of individual competencies with a total of 14 competencies throughout the five domains (Table 3). The student data from this instrument was examined using principle component analysis (PCA) to determine if the instrument competencies aligned in the same way in which was described by Boyatzis and Gaskin (2010). While some of the items of the instrument aligned within the fourteen competencies of the model, the reliability scores were low and almost half the items would have been dropped due to inadequate factor loading.

An additional PCA was then completed to determine if the data aligned with the five competencies. While the reliability scores were better, there was still a loss of approximately half of the items on the scale. A final PCA was then completed, setting the factors at one and considering the overall instrument representative of emotional and social competency. Few items were lost due to poor loading, and the reliability was strong. Therefore this is the factor structure that was used for this study.

Although the outcomes of the principal component analysis were not as expected, it can be possible that the outcomes of these attempts were related to the sample size of this study. An

increased number of observations (Hair, et al., 1998) may show a factor structure that could more closely resemble that found by Boyatzis and Gaskin (2010).

Findings

Due to previous research of Hunter (2011) that found the Business Learning Community had a positive effect on a student's GPA, the LC living arrangement was controlled for in all analyses in this study. With this, the RAHS factors of commitment, control-effort, control-affect and challenge were all found to be predictive of a student's GPA, even when controlling for living arrangement. However, only commitment was found to be predictive of a student's persistence. Emotional and social competencies were found to predict student success (GPA); but were not found to predict a student's persistence in this study.

Discussion

The results of this study indicate that each of the academic hardiness scales of the RAHS (commitment, control – effort, control – affect, and challenge) have a predictive relationship with a first-year students cumulative GPA. Commitment was found to be a predictor of both GPA and a student's persistence to the following semester.

While the findings were statistically significant, as described in Chapter 4, it is worthwhile to demonstrate the magnitude of these findings. The first hypothesis test (Table 10) was ultimately completed using linear regression (Table 11), because after controlling for living arrangement in the original hierarchical regression model, the model demonstrated that living arrangement was no longer significant in the second step of the model ($p = .187$). Therefore, linear regression was used to demonstrate the relationship between these two variables (RAHS – commitment, GPA). The formula for linear regression is $Y_i = (b_0 + b_1X_{1i})$. In completing this

formula with the corresponding variables, the equation becomes $GPA_i = -.784[\text{constant}] + .054[\text{RAHS} - \text{commitment}]$; possible values of 1-4].

The impact of this outcome is demonstrated when considering that the RAHS is an instrument which utilizes a four point scale, with a total of 20 statements measuring commitment. The variable b_1 (RAHS – commitment) could vary in range from one to four. Therefore, each unit could be multiplied up to four; with the possible effective range of GPA spanning from 1.08 points (each statement ranked “1” on four point scale, multiplied by the number of statements [20], multiplied by the expected GPA outcome [.054]) to 4.32 (each statement ranked “4” on four point scale, multiplied by number of statements [20], multiplied by expected GPA outcome [.054]).

This finding would be added to the constant (-.784) which is the expected GPA if there were no influence of RAHS – commitment. The outcome of this regression model indicates that RAHS-commitment is a significant predictor of a student’s GPA, and that impact of this variable would range from .296 to 3.54 ($GPA_i = -.784[\text{constant}] + .054[\text{RAHS} - \text{commitment}]$, values 1-4). This is decidedly important when considering learning interventions to increase a student’s level of overall commitment, and the incredible impact this could have on a student’s success in post-secondary education.

The original hardiness theory described by Kobasa (1979) described commitment as having a sense of loyalty to oneself (1979). Highly committed students were described (Benishek, et al., 2001) as those who have “exhibited personal dedication and involvement with all their courses” (p. 338), the opposite of those students who show “inconsistent and more conditional involvement” (p. 338). Further, a student who demonstrates high commitment would be the student who would be willing to reduce extra-curricular or co-curricular activities in order

to focus on their academic work (Benishek, et al., 2005). Students who have commitment have the ability to rise to the occasion, and therefore it is logical that RAHS – commitment was found to be a predictor of a student’s GPA. This supports the findings of Sheard (2009) who found a modest relationship between commitment and student final GPA.

Commitment was also found to be a significant predictor of a student’s persistence to the following semester. This finding aligns with the theoretical model of academic hardiness: a student who persists to the next semester is one who demonstrates commitment; a commitment to complete what they have started (Benishek & Lopez, 2001). The linkage is clear in the definition of this component of hardiness: individuals who express commitment are extremely involved and engaged in the activities of their lives (Sheard, 2009). An individual who experiences high levels of commitment holds a belief that no matter how bad things get, it is better to stay engaged in events rather than retreat (Maddi, et al., 2009). This could also reflect a student’s commitment to being involved at a level in their courses which provides the impetus to complete each course, regardless of how difficult it could be for that student.

RAHS – control-effort was also found to be a predictor of a student’s cumulative GPA (Table 12). Hierarchical regression was used to test this hypothesis while controlling for living arrangement. In this hierarchical test, the variables were entered into the model in specific order to control for the living arrangement of the students. Again, it is important to clearly delineate the magnitude of this finding. RAHS – control-effort was found to increase the expected GPA outcome by .043 per unit. Each of the 20 statements included in the RAHS that related to control-effort have a response range of 1 to 4. Therefore, each unit could be multiplied up to four; with the possible effective increase of GPA spanning from .86 points (each statement ranked “1” on four point scale, multiplied by the number of statements [20], multiplied by the

expected GPA outcome [.043]) to 3.44 (each statement ranked “4” on four point scale, multiplied by the number of statements [20], multiplied by the expected GPA outcome [.043]). With consideration of the constant (-.256) in this model, this finding shows that a student GPA would be impacted by RAHS – control-effort and GPA would range from .604 to 3.18 points.

The magnitude of these findings illuminate how important RAHS – control-effort can be to first-year students. Benishek, et al., (2005) describe control-effort as the student’s insight into their own behaviors that would assist the students with overcoming academic difficulties. A student who would score themselves higher on this scale would be the student who can activate behaviors such as seeking out help or assistance when a course or subject is difficult for them. Thus, it is clear that this component of the RAHS predicts a student’s cumulative GPA, in that the higher a student scores on the RAHS in this component, the more likely they are to have the insight that they need assistance and seek out that assistance.

RAHS – control-affect was also found to be a predictor of a student’s cumulative GPA, increasing the expected GPA outcome by .024 per unit (Table 13). Each of the 20 statements included in the RAHS that related to control-affect have a response range of 1 to 4. Therefore, each unit could be multiplied up to four; with the possible effective increase of GPA spanning from .48 points (each statement ranked “1” on four point scale, multiplied the number of statements [20], multiplied by the expected GPA outcome [.024]) to 1.92 (each statement ranked “4” on four point scale, multiplied by number of statements [20], multiplied by the expected GPA outcome [.024]). With consideration of the constant (1.098) in this model, this finding shows that a student GPA would be enhanced by RAHS – control-affect and that impact would range from 1.578 to 3.02 points.

RAHS – control-affect was described by Benishek, et al. (2005) as a student’s ability to manage their own emotions when dealing with academic challenges. Students who have higher levels of control-affect are perceived to have the ability to better navigate emotional changes they are confronted with daily. An outcome of this affective management would be a better regulated emotional self which could lead to having better focus on academic study, as emotional changes would be less likely to interfere or distract this student from their studies.

RAHS – challenge was found to be a predictor of a student’s cumulative GPA, increasing the expected GPA outcome by .036 per unit (Table 14). Each of the 20 statements included in the RAHS that related to control-affect have a response range of 1 to 4. Therefore, each unit could be multiplied up to four; with the possible effective increase of GPA spanning from .72 points (each statement ranked “1” on four point scale, multiplied by number of statements [20], multiplied by expected GPA outcome [.036]) to 2.88 (each statement ranked “4” on four point scale, multiplied by number of statements [20], multiplied by expected GPA outcome [.036]). With consideration of the constant (.466) in this model, this finding shows that a student GPA would be enhanced by RAHS – challenge and that impact would range from of 1.19 to 3.35 points.

RAHS – challenge, describes the student who seeks out difficult coursework and sees this behavior as a way to grow and develop (Benishek, et al., 2005). Students who express high levels of challenge are not students interested in easy grades, or necessarily a high GPA. These are students who are focused on the learning rather than the measure of their effort in a course. Because the actual learning rather than the outcome is the focus of these students, the finding of RAHS – challenge predicting GPA to the extent it does was an interesting finding.

Regardless of what a hardy student is faced with, they will stay engaged, and committed to a positive outcome. They respond to academic challenges in such a way that increases or improves their GPA. The difference between students who demonstrate hardiness and those that do not is summed up by Benishek and Lopez (2001) in that those who focus on learning goals and outcomes are more likely hardy than those who focus on performance goals such as grades or academic outcomes.

Support was found in this study to indicate emotional and social competencies ($\beta = .205$, $R^2 = .076$, $p < .01$) were predictive of a student's GPA. Hierarchical regression was used for this hypothesis test, in order to control for a student's living arrangement. Emotional and social competencies were found to increase the expected GPA outcome by .008 (Table 19). Using the regression formula mentioned previously in this chapter ($Y_i = (b_0 + b_1 X_{1i})$), the magnitude of this finding must be appreciated. The ESCI-U instrument was comprised of 70 items that allowed for a 5 point Likert scale response. Therefore, each student score on the ESCI-U could range from 70 to 350. The model showed that the expected GPA impact could range from .56 to 2.80 points. When adding this to the expected GPA of the sample, described as the constant (.680), the resulting student GPA would range from 1.24 to 3.48 points.

Goleman (1995, 1998) has previously posited the outstanding outcomes of what he described as social intelligence in the workplace. The findings of this dissertation study show relevance of use of this construct in the classroom, and in higher education. There are many different components of the theory of Emotional and Social Competencies (Table 3). This dissertation study used the outcome of the instrument as a composite score. However, within the theory of emotional and social competencies presented by Boyatzis and Goleman (2007), there

were five domains and 14 competencies in the theoretical model which made up the construct. These may all be important to consider in relation to student GPA outcomes.

The self-awareness domain included the competency “emotional self-awareness.” This is described as having an awareness of one’s own feelings, knowing why these feelings occur, and being open to feedback and recognizing how one reacts to cues in the environment (Boyatzis & Goleman, 2007, p. 5). Being open to feedback could be an important reason why individuals who have higher levels of this competency may be more successful academically. This could mean that they are able to accept constructive criticism, which could help drive a student’s ability to do better and improve on their assignments, thus increasing their GPA.

The ESCI-U competencies that represent the self-management domain include achievement orientation, adaptability, emotional self-control and positive outlook (Boyatzis & Goleman, 2007, p. 2). It makes sense that students with higher achievement orientation would have higher GPA because they would be goal driven thus allowing for focus on reaching a goal of a better grade, rather than meet the minimum standards. Adaptability indicates that a student could adapt to different teachers, teaching styles, assignments and topics more so than a student who is not adaptable; therefore this could certainly provide for increased GPA with students who have higher adaptability scores on the ESCI-U. Students who have a positive outlook, or are optimistic, are future orientated and may invest more time and effort into their coursework as learning provides new opportunities and future opportunities.

The ESCI-U domain of social awareness includes competencies related to empathy and organizational awareness. Levels of social awareness could indicate an increased awareness and empathetic attitude toward external events and persons. These could serve as a method for a

student to feel more connected to their surroundings, which could have an overall positive effect on a student's GPA.

The domain of cognitive competencies includes the individual competencies of systems thinking and pattern recognition. Students who rate themselves higher in these competencies are those who have success identifying patterns of action or behavior, and are able to conceptualize the systems that individuals and companies operate within (Boyatzis & Goleman, 2007). These two competencies could lead to student's success because a student high in these would be able to navigate the education system and better conceptualize their own place in it rather than a student who would not have these same inference skills.

Delimitations and Limitations

One delimitation of this study was the choice of sample for this study, a purposeful examination of first-year students this College of Business. Subsequent, liberal arts developmental education could have varying impacts on student's emotional and social competencies and academic hardiness. A further delimitation with this sample is that the persistence data was collected by determining if students had re-enrolled for the semester subsequent to the course in which the data were collected. Due to this, the persistence data was limited in size and scope. While persistence is an important measure that universities use to indicate success, it is also influenced by other variables that were not accounted for in this study. Variables such as student financial load or familial obligations would also have an effect on a student's persistence and this information was not accounted for in this study due to the privacy of student financial data.

One of the limitations of this study was the sample size. Although there was an adequate sample of student data to complete hypothesis testing (N = 178); this limitation was evident

when attempting to identify the factor structure of the ESCI-U instrument. The sample of students who completed this instrument was not large enough for the principal component analysis to be interpreted without some degree of caution. The factor structure that was ultimately used, while appropriate, was not the structure that was originally planned for in this study.

An additional limitation to consider in both the ESCI-U and the RAHS is that both instruments are self-report instruments. There is a perception that individuals, who possess greater cognitive ability, could easily manipulate self-report instruments to make themselves appear more favorable. Every effort was made in the collection of this data to ensure that the data collected was reliable and was not compelled by a student's attempt to look favorable. Spector (1994) addresses the use of self-report instruments, supporting and encouraging the use of self-report instruments in research.

An additional limitation related to the ESCI-U instrument is that of cost of the instrument itself. While institutions attempt to be good stewards of tuition and fee dollars paid by students; it would be aberrant to increase tuition or fees to utilize this instrument without being able to identify or confirm a factor structure. The \$25.00 cost per instrument can be cost prohibitive for undergraduate public university use. With this barrier to accessing this instrument, it is difficult to recommend or suggest future studies utilizing this instrument.

Another limitation to consider in both the ESCI-U and the RAHS is the instruments are self-report instruments. There is a perception that individuals, who possess greater cognitive ability, could easily manipulate self-report instruments to make themselves appear more favorable. Every effort was made in the collection of this data to ensure that the data collected was reliable and was not compelled by a student's attempt to look favorable. Spector (1994)

addresses the use of self-report instruments, supporting and encouraging the use of self-report instruments in research.

Implications for Theory

This study was conducted to determine if components of academic hardiness, or a student's level of emotional and social competency could be predictive of a first-year student's success or persistence. This study empirically indicated that all areas of academic hardiness predict a student's GPA. Further, student level of commitment, as measured by the RAHS, also predicted student persistence.

The Revised Academic Hardiness Scale, which was derived from hardiness theory (Kobasa, 1979), was used to measure student self-reported levels of hardiness. Kobasa's hardiness theory proposes that the three components of hardiness (commitment, control and challenge) are likely to buffer the negative effects of stressful situations in one's life (1979). A time of increased stress for students, acknowledged by higher education institutions, is the transition from high school to the first year of college (Cox et al., 2005; Edwards & McKelfresh, 2002; Inkelas & Weisman, 2003; Pike, 1999). This study provides evidence that supports Kobasa's theory. During this increased time of stress for students; hardiness, in all areas, predicted success as measured by GPA.

Boyatzis and Goleman (2007) suggest that if a student demonstrates emotional and social competencies that this would foster success for the student not only in higher education, but also in a career. The importance of such skills has been identified for some time. Thorndike (1920) was one of the first to describe the importance of what he referred to as "social intelligence" in helping individuals succeed in the workplace. He described a man who went into the workforce and was very skillful; so skillful, in fact, that he was quickly promoted to foreman. However,

this new foreman lacked the social skills to be successful and soon failed at being the leader of this workforce (p. 234).

In The Harvard Business Review, Katz (1955) described the importance of executives having “highly developed human skills” (p. 34) further stating that a successful executive “...is skillful in understanding what others really mean by their words and behavior. He is equally skillful in communicating to others, in their own contexts, what he means by *his* behavior” (p.34) [emphasis in source]. Those who teach business courses have been encouraged to begin teaching interpersonal skills (Muir, 2004) as these are skills that are most sought out by employers (Liptak, 2005). The findings of this study support emotional and social competencies as predictive of a student’s success, but not of a student’s persistence.

Implications for Practice

Higher education institutions have been charged to prepare a workforce that has skills and competencies that are aligned with the 21st century needs of the economy (Partnership for 21st Century Skills, 2008). These skills include workers who are adaptable to the environment around them and have the emotional and social competencies to relate well with others. If the development of such skills does not happen in higher education, then training and development of these skills falls to those organizations that hire these individuals. This is a very expensive endeavor and such a large cost that organizations are unlikely to spend resources on this type of training, unless it is more likely that employees are committed to the organization and success.

This dissertation study investigated academic hardiness and emotional and social competencies as constructs that relate to the social, human or adaptability skills that employers are seeking in their new hires. The findings from this dissertation study suggest that it would be worthwhile for institutions of higher education to focus on development of hardiness and

emotional and social competencies in undergraduate business students, as these constructs have a predictive relationship with a student's GPA.

Focused curriculum enhancements can make a difference in a student's levels of hardiness. Khoshaba and Maddi (2001) showed success in deployment of a training program that provides for development of coping skills and problem solving, interpersonal skills, and management of one's own state of mind when dealing with situations related to coping or interpersonal interaction. While the training program was developed for managers, it later was shown to increase hardiness attitudes among undergraduate students (Maddi, Khoshaba, Jensen, et al., 2002). The students who participated in this program demonstrated an increase in their GPA after six months. This past finding relates to the findings in this dissertation study.

The findings from this dissertation study support providing learning opportunities targeted to develop hardiness during the process of an undergraduate degree. A curricular focus and learning outcomes that align with the construct of hardiness could be embedded throughout an undergraduate learning experience. While there may be off-the-shelf training programs available, Maddi, Harvey, Khoshaba et al. (2009) report that hardiness is learned through a process in which an individual can grow when confronted with failure, and learn to turn his or her stressors into opportunities. A planful, targeted approach to experiencing and coping with failure can be embedded throughout an undergraduate curriculum.

The time of high stress for students in the first year has led to institutions deploying holistic first-year experience programs, courses, and learning communities which provide a safe and supportive environment for students (Pike et al., 1997; Tinto, 1999). Facilitating hardiness learning opportunities during a first-year experience program ensures that the student is well supported socially and academically. A key component necessary in such learning endeavors

would be providing student's opportunities to experience failure; and to facilitate students through a reflective process of how to grow from the experience of failure, which would align with the success in teaching hardiness as found by Maddi, Harvey and Khoshaba, et al. (2009). When an individual can reflectively learn to overcome failures, he or she will learn to face future stressors or failures as opportunities for growth and development (Khoshaba & Maddi, 1999). A first-year experience program or course would be able to provide the foundation of support for a student challenged by this type of activity. Providing opportunities to grow hardiness could then ensure that students could be more successful at navigating the stressful time of the first year of college.

Curriculum focused on development of emotional and social competencies is also supported by this study. The theory of emotional and social competency proposes that these social and emotional skills are what lead to the best performance of individuals in the workplace (Cherniss, 2000). In higher education, performance of students in the classroom is measured by grades. The findings of this dissertation study suggest that emotional and social competencies are predictive of a student's GPA. Boyatzis and Goleman (2007) provided a workbook as part of the ESCI-U package, to assist students in identifying individual competency outcomes, reflecting on competencies, assessing abilities and planning continued competency development. The workbook provides specific tips for students to further develop each competency and enhance insight of competencies desired. Beyond this workbook, there is no methodology indicated of successful development of such competencies through a targeted curriculum; however, with the gained knowledge that emotional and social competencies are predictive of GPA, it may be an important consideration for curricular integration in undergraduate programs. Future research,

encompassing a larger sample size, may provide specific emotional and social competencies (of the 14 in the theory) to focus upon in a curriculum.

A secondary integration of outcomes from this dissertation study can be of assistance to University academic support offices. Knowing that students who have higher levels of academic hardiness are more likely to persist and be successful, universities can screen for these attributes by asking students questions related to their motivations for learning or attending the institution (e.g. “I am interested in high grades” versus “I am interested in learning”). Providing only a dichotomous opportunity for response may assist the institution in identifying those who are academically hardy versus those who are not. This type of screening can assist in identifying students that can benefit from additional support in these areas. This can lead to favorable outcomes for the institutions and for students prior to entering professional degree programs.

Areas for Future Research

Emotional and social competencies and academic hardiness are constructs that can be taught, and are dynamic rather than static. Therefore, it would be advantageous to also look at other academic levels and major areas of students to gain insight into their development of these constructs.

Mentioned in the delimitations and limitations above, variables such as financial load or familial obligations can impact a student’s persistence. Future research can control for these variables if such information such financial aid disclosures are made available, or other data that speaks to a student’s financial load or dependent obligations. There may be additional influential variables that remain unknown that could impact student persistence or even cumulative GPA, outside of the scope of this study that could be considered in future research.

Additional areas for future research with academic hardiness and/or emotional and social competencies include longitudinal samples of students to determine if there are changes in their self-reported levels of academic hardiness or emotional and social competency. The College of Business had several separate majors which include Accounting, Management Information Systems, Management and Marketing. It would be worthwhile to study differences between these major groups of students to further drill down on academic learning interventions that could benefit each of these groups by their area of study. Further research into a student's emotional and social competencies and/or academic hardiness could provide institutions with benchmarking data that could assist with advising students in the College of Business. The findings from future research could also assist with admissions of students into particular majors or even colleges throughout a university.

Future research may be difficult for institutions of higher education if faced with the expense of the ESCI-U instrument. However, if the instrument were to become available to institutions of higher education at a nominal fee or agreement to share the outcome data at no cost per instrument; a magnitude of data could become available to further investigate the psychometric structure of the instrument and also provide a normative sample to those who may choose to utilize the instrument in future research.

If adjustments were made to make this instrument more readily available to higher education institutions, the psychometric properties of the instrument can be investigated further, to ensure the instrument's usefulness with this population of students. With a larger sample size, and less expense, future research could provide insight into specific competencies that may be predictive of student success; building a foundation of which to enhance curricular adjustments.

Summary

This dissertation study examined the relationship between academic hardiness, emotional and social competency, GPA and persistence with a sample of students enrolled in a first-year experience course at North Dakota State University. Students were administered several survey instruments (see Appendix A) including the Emotional and Social Competencies Inventory – University edition (ESCI-U, Boyatzis & Goleman, 2007) and the Revised Academic Hardiness Scale (RAHS, Benishek, et al., 2005) during the semester in which they were enrolled in the course. Further data was collected at the end of the semester relating to the students cumulative GPA as well as their persistence data (did they reenroll in the following semester).

Regression analysis was conducted to evaluate how well the data from the instruments, separately, predict student GPA and persistence. The outcome of the analyses indicates that all components of academic hardiness (commitment, control-effort, control-affect, challenge; as measured by the RAHS) were predictive of student GPA. Further, the component of commitment was predictive of a student's persistence. Emotional and social competencies were found to be predictive of a student's GPA but predictive of a student's persistence in this study.

The findings of this dissertation study support targeting curriculum specifically to these two constructs, to further develop these skills and attitudes in students. The benefit of this would be the impact that development of these skills and attitudes can have on GPA (and persistence, in the case of RAHS – commitment), but additionally these skills and attitudes are sought out by organizations that are hiring graduates.

REFERENCES

- Alexander, F. K. (2000). The changing face of accountability. *The Journal of Higher Education*, 71(4), 411-431.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Development*, 40(5), 519-529.
- Bagshaw, M. (2000). Emotional intelligence—Training people to be affective so they can be effective. *Industrial and Commercial Training*, 32(2), 61-65.
- Bar-On, R. (1997). *Emotional Quotient Inventory (EQ-i): Technical manual*. Toronto, Canada: Multi-Health Systems.
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On & J. D. A. Parker (Eds.), *Handbook of emotional intelligence* (pp. 363-388). San Francisco, CA: Jossey-Bass.
- Bar-On, R. (2010). *A new US Air Force [sic] study explores the cost-effectiveness of applying the Bar-On EQ-i*. Retrieved from <http://www.eiconsortium.org/reprints/reprints.html>
- Bar-On, R., & Parker, J. D. A. (2000). *The handbook of emotional intelligence*. San Francisco, CA: Jossey-Bass.
- Bartone, P., Roland, R., Picano, J., & Williams, T. (2008). Psychological hardiness predicts success in U.S. Army Special Forces candidates. *International Journal of Selection and Assessment*, 16(1), 78-81. doi:10.1111/j.1468-2389.2008.00412.x
- Beard, D., Schwieger, D., & Surendran, K. (2008). Integrating soft skills assessment through university, college, and programmatic efforts at an AACSB accredited institution. *Journal of Information Management Systems Education*, 19(2), 229-240.

- Benishek, L. A., Feldman, J. M., Shipon, R. W., Mecham, S. D., & Lopez, F. G. (2005). Development and evaluation of the Revised Academic Hardiness Scale. *Journal of Career Assessment, 13*(1), 59-76. doi:10.1177/1069072704270274
- Benishek, L. A., & Lopez, F. G. (2001). Development and initial validation of a measure of academic hardiness. *Journal of Career Assessment, 9*(4), 333-352. doi:10.1177/106907270100900402
- Bennett, J. C. (1999). Achieving professional excellence for a new century. *The Information Management Journal, 33*(2), 36-42.
- Blattner, J., & Bacigalupo, A. (2007). Using emotional intelligence to develop executive leadership and team and organizational development. *Consulting Psychology Journal: Practice and Research, 59*(3), 209-219.
- Boyatzis, R. (1982). *The competent manager*. New York, NY: Wiley & Sons.
- Boyatzis, R. (2006). *The creation of the Emotional and Social Competency Inventory (ESCI): Findings from a pilot study to achieve a higher psychometric standard with the ECI*. Retrieved from www.haygroup.com/Downloads/uk/misc/ESCI_Article.pdf
- Boyatzis, R. (2008). Competencies in the 21st century. *Journal of Management Development, 27*(1), 5-12.
- Boyatzis, R. E. (2000). Developing emotional intelligence. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 234-253). San Francisco, CA: Jossey-Bass.
- Boyatzis, R. E. (2009). Competencies as a behavioral approach to emotional intelligence. *Journal of Management Development, 28*(9), 749-770. doi:10.1108/02621710910987647

- Boyatzis, R. E., & Gaskin, J. (2010). *A technical note on the ESCI and ESCI-U: Factor structure, reliability, convergent and discriminant validity using EFT and CFA*. The Hay Group.
- Boyatzis, R. E., & Goleman, D. (2007). *Emotional and Social Competency Inventory-University Edition (ESCI-U)*. Boston, MA: Hay Group.
- Boyatzis, R. E., & Saatscioglu, A. (2008). A twenty-year view of trying to develop emotional, social and cognitive intelligence competencies in graduate management education. *Journal of Management Development, 27*(1), 92-108. doi:10.1108/02621710910987647
- Boyatzis, R. E., & Sala, F. (2004). Assessing emotional intelligence competencies. In G. Geher (Ed.), *The measurement of emotional intelligence* (pp. 147-180). Hauppauge, NY: Novas Science Publishers.
- Boyatzis, R. E., Stubbs, E. C., & Taylor, S. N. (2002). Learning cognitive and emotional intelligence competencies through graduate management education. *Academy of Management Journal on Learning and Education, 1*(2), 150-162.
- Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminate and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin, 29*(9), 1147-1158. doi:10.1177/0146167203254596
- Brungardt, C. (2011). The intersection between soft-skill development and leadership education. *Journal of Leadership Education, 10*(1), 1-22.
- Byrne, B. M. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Earlbaum Associates, Inc.
- Canadian Alliance of Education and Training Organizations. (2003). *Preparing for the future: Identifying advanced essential skills needed in Canada*. Ottawa, Canada: Author.

- Retrieved from [http://www.uoguelph.ca/cera/PDFs/Adv 20Skills 20Lit 20Review 20May 202003.pdf](http://www.uoguelph.ca/cera/PDFs/Adv%20Skills%20Lit%20Review%20May%202003.pdf)
- Carmeli, A., & Josman, Z. E. (2006). The relationship among emotional intelligence, task performance, and organizational citizenship behaviors. *Human Performance, 19*(4), 403-419.
- Carnevale, A. P. (2008). The workplace realities. *The School Administrator*. Retrieved from <http://www.aasa.org/SchoolAdministratorArticle.aspx?id=6000>
- Cartwright, S., & Pappas, C. (2008). Emotional intelligence, its measurement and implications for the workplace. *International Journal of Management Reviews, 10*(2), 149-171.
doi:10.1111/j.1468-2370.2007.00220.x
- Cavallo, K., & Brienza, D. (2001). *Emotional competence and leadership excellence at Johnson & Johnson: The emotional intelligence and leadership study*. Retrieved from Consortium for Research on Emotional Intelligence in Organizations:
http://www.eiconsortium.org/reports/jj_ei_study.html
- Cherniss, C. (2000). Emotional intelligence: What it is and why it matters. Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, LA.
- Cherniss, C. (2010). EI: Towards clarification of a concept. *I/O Psychology, 3*, 110-126.
- Cherniss, C., Extein, M., Goleman, D., & Weissberg, R. (2006). Emotional intelligence: What does the research really indicate? *Educational Psychologist, 41*(4), 239-245.
- Cherniss, C., Goleman, D., Emmerling, R., Cowan, K., & Adler, M. (1998). *Bringing emotional intelligence to the workplace: A technical report issued by the Consortium for Research*

- on Emotional Intelligence in Organizations*. Retrieved from http://www.eiconsortium.org/reports/technical_report.html
- Clark, S. C., Callister, R., & Wallace, R. (2003). Undergraduate management skills courses and students emotional intelligence. *Journal of Management Education*, 27(3), 3-23.
- Conte, J. M. (2005). A review and critique of emotional intelligence measures. *Journal of Organizational Behavior*, 26, 433-440.
- Cook, G. L., Bay, D., Visser, B., Myburgh, J. E., & Njoroge, J. (2011). Emotional intelligence: The role of accounting education and work experience. *Issues in Accounting Education*, 26(2), 267-286. doi:10.2308/iace-10001
- Coughlin, M. A. (2005). *Applications of intermediate/advanced statistics in institutional research*. Tallahassee, FL: Association for Institutional Research.
- Cox, P. L., Schmitt, E. D., Bobrowski, P. E., & Graham, G. (2005). Enhancing the first-year experience for business students: Student retention and academic success. *Journal of Behavioral and Applied Management*, 7(1), 40-68.
- Crosbie, R. (2005). Learning the soft skills of leadership. *Industrial and Commercial Training*, 37(1), 45-51.
- Dearborn, K. (2002). Studies in emotional intelligence redefine our approach to leadership development. *Public Personnel Management*, 31(4), 523-530.
- Dulewicz, V., & Higgs, M. (2003). Leadership at the top: The need for emotional intelligence in organizations. *International Journal of Organizational Analysis*, 11(3), 193-210. Retrieved from ABI/INFORM Global. (Document ID: 738308071)

- Edwards, K. E., & McKelfresh, D. A. (2002). The impact of a living learning center on students' academic success and persistence. *Journal of College Student Development, 43*(3), 395-402.
- Erickson, B. L., Peters, C. B., & Strommer, D. W. (2006). *Teaching first-year college students*. San Francisco, CA: Jossey-Bass.
- Gallivan, M. J., Truex, D. P., & Kvasny, L. (2004). Changing patterns in IT skill sets 1988-2003: A content analysis of classified advertising. *Database for Advances in Information Systems, 35*(3), 64-87.
- Gammie, B., Gammie, E., & Cargill, E. (2002). Personal skills development in the accounting curriculum. *Accounting Education, 11*(1), 63-78. doi:10.1080/09639280210153272
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic Books.
- Girden, E. R. & Kabacoff, R. I. (2011). Evaluating research articles: From start to finish (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Goleman, D. P. (1995). *Emotional intelligence: Why it can matter more than IQ for character, health and lifelong achievement*. New York, NY: Bantam Books.
- Goleman, D. P. (1998). *Working with emotional intelligence*. New York, NY: Bantam Books.
- Goleman, D., & Boyatzis, R. E. (2008). Social intelligence and the biology of leadership. *The Harvard Business Review, 86*(9), 74-81.
- Green, S. B., & Salkind, N. J. (2008). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (5th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Grubb, W. L., & McDaniel, M. A. (2007). The fakability of Bar-On's Emotional Quotient Inventory short form: Catch me if you can. *Human Performance, 20*(1), 43-59.

- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, B. (1998). *Multivariate analysis* (5th ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.
- Hunter, S. E. (2011). *A study of a residential major-specific first-year living-learning community at North Dakota State University* (Unpublished master's thesis). North Dakota State University, Fargo.
- Inkelas, K. K., & Weisman, J. L. (2003). Different by design: An examination of student outcomes among participants in three types of living learning programs. *Journal of College Student Development, 44*(3), 335-368. doi:10.1353/csd.2003.0027
- Kappe, R., & van der Flier, H. (2012, February 1). Predicting academic success in higher education: What's more important than being smart? *European Journal of Psychology of Education* [online]. doi:10.1007/s10212-011-0099-9
- Katz, R. L. (1955). Skills of an effective administrator. *Harvard Business Review, 33*(1), 33-42.
- Khoshaba, D., & Maddi, S. (1999). Early experiences in hardiness development. *Consulting Psychology Journal: Practice and Research, 51*(2), 106-116. doi:10.1037/1061-4087.51.2.106
- Kobasa, S. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology, 37*(1), 1-11. doi:10.1037/0022-3514.37.1.1
- Kobasa, S., Maddi, S. R., & Kahn, S. (1982). Hardiness and health: A prospective study. *Journal of Personality and Social Psychology, 37*, 168-177.
- Langhorn, S. (2004). How emotional intelligence can improve management performance. *International Journal of Contemporary Hospitality Management, 16*(4/5), 220-230.

- Law, K., Wong, C., & Song, L. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of Applied Psychology, 89*(3), 483-496. doi:10.1037/0021-9010.89.3.483
- Liptak, J. (2005). Using emotional intelligence to help college students succeed in the workplace. *Journal of Employment Counseling, 42*, 171-178.
- Livingstone, H. A., & Day, A. L. (2005). Comparing the construct and criterion-related validity of ability-based and mixed-model measures of emotional intelligence. *Educational and Psychological Measurement, 65*(5), 757-779. doi:10.1177/0013164405275663
- Locke, E. A. (2005). Why emotional intelligence is an invalid concept. *Journal of Organizational Behavior, 26*, 425-431. doi:10.1002/job.318
- Lopes, P. N., Grewal, D., Kadis, J., Gall, M., & Salovey, P. (2006). Evidence that emotional intelligence is related to job performance and affect and attitudes at work. *Psicothema, 18*, 132-138.
- Lozada, M. (1996). Social misfits, workplace outcasts. *Vocational Education Journal, 71*(2), 14.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital*. New York, NY: Oxford University Press.
- Maddi, S. R. (1987). Hardiness training at Illinois Bell Telephone. In J. P. Opatz (Ed.), *Health promotion evaluation* (pp. 101-105). Stevens Point, WI: National Wellness Institute.
- Maddi, S. R. (1996). *Personality theories: A comparative analysis* (6th ed.). Toronto, Canada: Brooks/Cole Publishing Co.
- Maddi, S. R. (2006). Hardiness: The courage to grow from stresses. *The Journal of Positive Psychology, 1*(3), 160-168.

- Maddi, S., Harvey, R., Khoshaba, D., Fazel, M., & Resurreccion, N. (2009). Hardiness training facilitates performance in college. *The Journal of Positive Psychology, 4*(6), 566-577.
- Maddi, S. R., & Hightower, M. (1999). Hardiness and optimism as expressed in coping patterns. *Consulting Psychology Journal: Practice and Research, 51*(2), 95-105.
doi:10.1037/1061-4087.51.2.95
- Maddi, S. R., Kahn, S., & Maddi, K. L. (1998). The effectiveness of hardiness training. *Consulting Psychology Journal, 50*, 78-86.
- Maddi, S. R., Khoshaba, D. M., Jensen, K., Carter, E., Lu, J. L., & Harvey, R. H. (2002). Hardiness training for high-risk undergraduates. *National Academic Advising Association Journal, 22*, 45-55.
- Maddi, S. R., Khoshaba, D. M., & Pammeter, A. (1999). The hardy organization: Success by turning change to advantage. *Consulting Psychology Journal, 51*, 117-124.
- Mayer, J., & Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied and Preventative Psychology, 4*(3), 197-208. doi:10.1016/S0962-1849(05)80058-7
- Mayer, J. D., Salovey, P., & Caruso, D. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry, 15*(3), 197-215.
- Mayer, J. D., Caruso, D., & Salovey, P. (1999). Emotional intelligence meets traditional standards for an intelligence. *Intelligence, 27*, 267-298.
- Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence, 17*, 433-442.
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT v2.0. *Emotion, 3*(1), 97-105.

- McEnrue, M. P., & Groves, K. (2006). Choosing among tests of emotional intelligence: What is the evidence? *Human Resource Development Quarterly*, 17(1), 9-42.
doi:10.1002/hrdq.1159
- Mertler, C. A., & Vannatta, R. A. (2002). *Advanced and multivariate statistical methods: Practical application and interpretation* (2nd ed.). Los Angeles, CA: Pyrczak Publishing.
- Mishra, P. S., & Mohapatra, A. K. D. (2010). Relevance of emotional intelligence for effective job performance: An empirical study. *Vikalpa: The Journal for Decision Makers*, 35(1), 53-61.
- Morehouse, M. (2006). An exploration of emotional intelligence across career arenas. *Leadership & Organizational Development Journal*, 28(4), 296-307.
- Muir, C. (2004). Learning soft skills at work: An interview with Annalee Luhman. *Business Communication Quarterly*, 67(1), 95-101.
- Murphy, K. R., & Sideman, L. (2006). The two EIs. In K. R. Murphy (Ed.), *A critique of emotional intelligence: What are the problems and how can they be fixed?* (pp. 37-58). Mahwah, NJ: Lawrence Erlbaum Associates.
- Murphy, M. (2012). *Hiring for attitude: Research and tools to skyrocket your success rate*. Retrieved from Leadership IQ website: <http://www.leadershipiq.com/white-papers/hiring-for-attitude-the-research-tools-to-skyrocket-your-success-rate/>
- Muyia, H. M. (2009). Approaches to and instruments for measuring emotional intelligence: A review of selected literature. *Advances in Developing Human Resources*, 11(6), 690-702.
- NDSU Office of the Registrar. (2010). *Registration data*. Retrieved from <http://www.ndsu.edu/fileadmin/registrar/enrollment/summary/1110.pdf>

- Paradise, A. (2007). *American Society of Training Developers state of the industry Report*.
Alexandria, VA: American Society of Training Developers Press.
- Partnership for 21st Century Skills. (2008). *21st century skills, education & competitiveness: A resource and policy guide*. Retrieved from Partnership for 21st Century Skills website:
http://www.p21.org/storage/documents/21st_century_skills_education_and_competitiveness_guide.pdf
- Pascarella, E. T., Bohr, L., Nora, A., & Terenzini, P. T. (1994). *Is differential exposure to college linked to the development of critical thinking?* Chicago: National Center on Postsecondary Teaching, Learning, and Assessment, Illinois University at Chicago.
- Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality, 15*, 425-448. doi:10.1002/per.416
- Pike, G. R. (1999). The effects of residential learning communities and traditional residential living arrangements on educational gains during the first year of college. *Journal of College Student Development, 40*(3), 269-284.
- Pike, G. R., Schroeder, C .C., & Berry, T. R. (1997). Enhancing the educational impact of residence halls: The relationship between residential learning communities and first year college experiences and persistence. *Journal of College Student Development, 38*, 609-621.
- Pine, J., & Tingley, J. (1993). ROI of soft skills training. *Training, 30*(2), 55-59.
- Rahim, M. A., & Minors, P. (2003). Effects of emotional intelligence on concern for quality and problem solving. *Managerial Auditing Journal, 18*(1/2), 150-154.

- Salkind, N. (2008). *Statistics for people who think they hate statistics*. Thousand Oaks, CA: Sage Publications.
- Salovey, P., & Grewal, D. (2005). The science of emotional intelligence. *Current Directions in Psychological Science, 14*(6), 281-285. doi:10.1111/j.0963-7214.2005.00381.x
- Salovey, P., & Mayer, J. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185-211.
- The Secretary's Commission on Achieving Necessary Skills. (1991). *What work requires of schools: A SCANS report for America 2000*. Washington, DC: U.S. Department of Labor, The Secretary's Commission on Achieving Necessary Skills.
- Schoo, A. (2008). Leaders and their teams: Learning to improve performance with emotional intelligence and using choice theory. *International Journal of Reality Therapy, 27*(2), 40-45.
- Schutte, N., & Malouff, J. (1999). *Measuring emotional intelligence and related constructs*. New York, NY: Mellon Press.
- Seligman, M. E. P. (2002). *Authentic happiness*. New York, NY: Free Press.
- Sheard, M. (2009). Hardiness commitment, gender, and age differentiate university academic performance. *British Journal of Educational Psychology, 79*(1), 189-204.
- Shipp, D. J. (2010). *Examining the relationship between emotional intelligence competencies and student persistence factors for full-time, traditional-aged college undergraduate students* (Unpublished doctoral dissertation). University of the Pacific, Stockton, CA.
- Soldner, M., & Szelenyi, K. (2008). A national portrait of today's living-learning programs. *The Journal of College and University Student Housing, 15*(1), 14-31.
- Spearman, I. (1927). *The abilities of man*. London, England: MacMillian.

- Spector, P. E. (1994). Using self-report questionnaires in OB research: A comment on the use of a controversial method. *Journal of Organizational Behavior, 15*(5), 385-392.
- Stassen, M. (2003). Student outcomes: The impact of varying living-learning community models. *Research in Higher Education, 44*, 581-613.
- Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (5th ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Thorndike, E. L. (1920). Intelligence and its uses. *Harpers Monthly Magazine, 140*, 227-235.
- Thorndike, E. L., & Stein, S. (1937). An evaluation of the attempts to measure social intelligence. *Psychological Bulletin, 34*(5), 275-285.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago, IL: The University of Chicago Press.
- Tinto, V. (1999). Taking retention seriously: Rethinking the first year of college. *National Academic Advising Association Journal, 19*(2), 9.
- Tinto, V. (2000). Learning better together: The impact of learning communities on student success in higher education. *Australasian Association for Institutional Research, 9*(1). Retrieved from <http://www.aair.org.au/app/webroot/media/pdf/JIR/Journal%20of%20Institutional%20Research%20in%20Australasia%20and%20JIR/Volume%209,%20No.%201%20May%202000/Tinto.pdf>
- Trauth, E. M., Farwell, D. W., & Lee, D. M. S. (1993). The IS expectation gap: Industry expectations versus academic preparation. *MIS Quarterly, 17*(3), 293-307.

- Tucker, M. L., Sojka, J. Z., Barone, F. J., & McCarthy, A. M. (2000). Training tomorrow's leaders: Enhancing the emotional intelligence of business graduates. *Journal of Education for Business, 75*(6), 331-337. doi:10.1080/088323200009599036
- Waters, J. A. (1980). Managerial skill development. *The Academy of Management Review, 5*(3), 449-453.
- Watson, T. S. (2002). [Review of the Emotional Competence Inventory]. In B. S. Plake & J. C. Impara (Eds.), *The fifteenth mental measurements yearbook* (pp. 304-305). Lincoln, NE: Buros Institute of Mental Measurements.
- Weber, M., Finley, D., Crawford, A., & Rivera, D. (2009). An exploratory study identifying soft skill competencies in entry-level managers. *Tourism and Hospitality Research, 9*(4), 353-361.
- Wechsler, D. (1958). *The measurement and appraisal of adult intelligence* (4th ed.). Baltimore, MD: The Williams & Wilkins Company.
- Zeidner, M., Matthews, G., & Roberts, R. D. (2004). Emotional intelligence in the workplace: A critical review. *Applied Psychology: An International Review, 53*(3), 371-399.
- Zhao, C., & Kuh, G. D. (2004). Adding value: Learning communities and student engagement. *Research in Higher Education, 45*(2), 115-138.

APPENDIX A. INSTRUMENT

BUSN189 Fall 2010 Assessment

1. Introduction to survey

Dear Students,

This inventory will provide you with valuable information both about your current academic life and your future professional life and how to be successfully fulfilled in both. Self awareness is the first step to becoming a good organizational citizen. The inventory you will be completing here begins that process.

In addition, being at a highly accredited business school means that you have the opportunity to influence what and how learning happens. We are continuously looking at results of inventories and assessments from our students to improve on the learning process.

In the spirit of full disclosure, we will ask for your name at the end of the inventory. This is so we can return your results to you, otherwise completing the inventory would be meaningless. After your results have been returned to you, your name will be removed from the data. At the end of the semester, you will be asked to complete a short assessment of your experience this first semester. At that time, you will only be asked for your student ID number, so we can match your responses.

It will take you only about 30 minutes to complete the assessment. However, you will need to work straight through the whole assessment once you start. Exiting the assessment and coming back to it will erase all of your previous answers. If you are ready now you can start; otherwise, come back when you have the time to complete the whole assessment.

Your responses will be maintained with the strictest confidence. If you have any questions, please call me at 701.231.7061 or email me at Tim.O.Peterson@ndsu.edu.

Yours in learning,
Tim O. Peterson, Ph.D.
Associate Dean
College of Business

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2. Part 1

Please respond to each statement on the following pages by rating how frequently you engage in each behavior or what kind of person you are.

*** 1. I try to resolve conflicts by finding a solution that addresses everyone's interest.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 2. I describe underlying reasons for my own feelings.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 3. I lead by building pride in the group.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 4. I work well in teams by being supportive.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 5. I adapt overall strategy, goals, or projects to cope with unexpected events.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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3.

*** 6. I convince others by developing behind the scenes support.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 7. I see a situation as multiple cause and effect interactions.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 8. I try to resolve conflict by openly talking about disagreements with those involved.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 9. I explain how certain things affect others resulting in a particular outcome.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 10. I work well in teams by being respectful of others.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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4.

*** 11. I see possibilities rather than problems.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 12. I convince others by appealing to their self-interest.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 13. I perceive similarities among different types of situations.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 14. I adapt by applying standard procedures flexibly.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 15. I explain complex events through a system of flow diagrams.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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5.

*** 16. I provide feedback others find helpful for their development.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 17. I coach and mentor others.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 18. I work well in teams by encouraging the participation of everyone present.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 19. I lead by bringing out the best in people.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 20. I explain an event in terms of how multiple factors involved affect each other.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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6.

*** 21. I understand social networks.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 22. I seek to improve by setting measurable and challenging goals.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 23. I see the positive in people, situations, and events more often than the negative.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 24. I understand the team's or organization's unspoken rules.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 25. I show awareness of my own feelings.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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7.

*** 26. I acknowledge my own strengths and weaknesses.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 27. I strive to improve my own performance.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 28. I understand others by listening attentively.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 29. I convince others by getting support from key people.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 30. I resolve conflict by bringing it into the open.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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8.

*** 31. I convince others by engaging them in discussion.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 32. I identify patterns or trends in seemingly random information.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 33. I understand the values and culture of the team or organization.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 34. I adapt by smoothly juggling multiple demands.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 35. I am able to describe how my feelings affect my actions.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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9.

*** 36. I initiate actions to improve.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 37. I work well in teams by soliciting others' input.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 38. I perceive themes or patterns in events.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 39. I act appropriately even in emotionally charged situations.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 40. I anticipate how others will respond when trying to convince them.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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10.

*** 41. I understand the informal processes by which work gets done in the team or organization.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 42. I care about others and their development.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 43. I lead by articulating a compelling vision.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 44. I lead by inspiring people.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 45. I control impulses for the good of others.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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11.

*** 46. I remain composed, even in trying moments.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 47. I see opportunities rather than threats.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 48. I seek ways to do things better.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 49. I work well in teams by encouraging cooperation.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 50. I adapt to shifting priorities and rapid change.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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12.

*** 51. I try to resolve conflict by finding a position everyone involved can endorse.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 52. I control impulses appropriately in situations.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 53. I view the future with hope.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 54. I use metaphors or analogies to describe themes or patterns.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 55. I believe the future will be better than the past.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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13.

*** 56. I seek to improve by taking calculated risks to reach a goal.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 57. I personally invest time and effort in developing others.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 58. I understand others from different backgrounds.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 59. I understand others by putting myself into their shoes.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 60. I interpret a new situation by using an analogy relating it to a different type of situation.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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14.

*** 61. I lead others by creating a positive emotional tone.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 62. I understand the connection between what is happening and my own feelings.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 63. I remain calm in stressful situations.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 64. I understand reasons for another's actions.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 65. I understand others' perspective when they are different from my own.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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15.

*** 66. I understand the informal structure in the team or organization.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 67. When resolving conflict, I de-escalate the emotions in the situation.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 68. I provide on-going mentoring or coaching.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 69. I see an event as a set of cause and effect relationships.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 70. I adapt overall strategy, goals, or projects to fit the situation.**

	Never	Rarely	Sometimes	Often	Consistently
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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16. Congratulations! Part 1 is completed.

You have completed the first major components of this assessment.

We would like you take a few moments to stand up and stretch. It is important that you stay fresh as you answer this material since we will be providing you with feedback on your results later this semester.

This feedback will only be useful to you if the information you provide is accurate. When you are ready to resume the assessment, please click the next button.

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17. Part 2

The following questions will assess your thoughts and feelings about academic activities. Indicate how true or false each item is with regard to your personal beliefs using the 4-point rating scale provided.

*** 71. I prefer teachers who have reputations for being demanding.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 72. I seek help from my teachers when I get bad grades.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 73. I know when to ask for help if I am working on a difficult homework assignment.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 74. Right now I'm very involved in my classes.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 75. I start to doubt my ability as a student if I begin to do poorly in a class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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18.

*** 76. My commitment to studying comes and goes throughout the academic year.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 77. I am willing to risk failing a class in order to learn something new and important.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 78. I try to get into classes where I pretty much know I can do well.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 79. When I do poorly on a test I can stay calm so that I can learn from my mistakes.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 80. I only take classes that I know won't bring down my GPA.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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19.

*** 81. I am able to do my schoolwork even when the amount of work I have to do seems overwhelming.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 82. I find it difficult to do well when I doubt my ability to perform well in a class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 83. Experiencing anxiety about grades I get in school can actually be a good thing.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 84. I rarely become overly critical of myself if I am not doing well academically.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 85. When I do poorly on a test it is usually because the teacher did a poor job of presenting the material.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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20.

*** 86. The grades I get in a class depend on how tough of a grader my teacher is rather than the effort I put into that class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 87. I don't intentionally avoid taking difficult classes.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 88. I don't feel overwhelmed when I get assigned a lot of schoolwork to do in a short period of time.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 89. I try to do my best work regardless of the class I'm in.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 90. I am good at finding ways to decrease my stress (exercising, meditation, seeing a movie) when I am not performing well academically.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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21.

*** 91. I don't avoid enrolling in difficult classes.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 92. It is difficult for me to continue working hard in a class even after getting a poor grade on a test or project.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 93. School is my top priority right now.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 94. Doing well in school is as important to me as it is to my parents.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 95. I don't ask for help when I encounter challenging academic tasks, such as a difficult test or a difficult class project.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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22.

*** 96. In general, the more I prepare for a test, the better I do.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 97. I don't see the purpose of taking a class if I'm not totally confident I will get a good grade in it.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 98. It is easy for me to "bounce back" from academic disappointments.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 99. Getting good grades isn't a terribly important goal for me.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 100. When I make plans for getting my schoolwork done I am confident that I can make them work.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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23.

*** 101. I am willing to take difficult classes at the risk of getting a bad grade.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 102. I increase my effort when I am not performing well in a class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 103. I don't ask questions when I am confused about my schoolwork.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 104. I get help when I am not getting the grades I want in school.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 105. I will not go out with my friends if I need to study for a test.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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24.

*** 106. I enjoy the challenge of taking difficult classes.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 107. I am less willing to work hard when I don't get the grades I want right away.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 108. I intentionally seek out difficult classes so that I will be better prepared for work or for college.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 109. I put effort into a class even if I don't care about it.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 110. There is little relationship between the amount of time I study and the grades I get.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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25.

*** 111. When I get a bad grade it is because I have not applied myself.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 112. I avoid classes I know will require a lot of extra work.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 113. I have too many competing obligations right now to make studying my top priority.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 114. I prefer to take easy classes so that I can get good grades.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 115. I am unwilling to give up my social life in order to get good grades even when I am not doing well in a class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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26.

*** 116. It is not hard for me to concentrate even when the course content is really difficult.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 117. I will work hard in a class even if I think it is boring.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 118. I go to school even when I am not feeling well.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 119. Getting a bad grade on a test or a class project puts me into a bad mood for the rest of the day.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 120. I try to take classes that require the least amount of work.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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27.

*** 121. I use criticism about my class performance to motivate me.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 122. I try hard in all of my classes regardless of whether or not I am interested in them.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 123. Getting a poor grade makes me feel like giving up.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 124. I work hard for the grades I get.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 125. I take difficult classes because I know they will benefit me in the future.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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28.

*** 126. If I work hard I can do well on my coursework even if I find it to be difficult.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 127. I am able to stay calm even when I think I am not doing well on a test.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 128. If I had to choose, I would rather learn a lot than get a good grade.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 129. I usually get frustrated when I don't understand something in class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 130. I am more concerned about getting a decent grade than I am about learning the class material.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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29.

*** 131. I am confident I can do well on a difficult assignment if I work hard.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 132. I can usually manage the stress that results from taking difficult coursework in healthy ways.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 133. I am not willing to give up doing something fun if I have schoolwork to do.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 134. My motivation to learn difficult class material is stronger than my desire to get good grades.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 135. I don't take my work as a student very seriously.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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30.

*** 136. I know how to get help if I am struggling in a class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 137. I enroll in classes even when I know they will require a lot of time and effort on my part to do well.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 138. It is foolish to risk lowering my GPA by choosing to take difficult classes even if they interest me.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 139. I prefer to take classes that I know are an "easy A".**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 140. I am able to push aside any negative thoughts I experience when I am not performing well in class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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31.

*** 141. I am good at calming myself down when I feel anxious about my ability to do well on a test or a class project.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 142. The grades I get are a direct result of the effort I put into my classes.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 143. I know that with hard work in school I can meet my educational goals.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 144. I only work as hard as I need in order to pass my classes.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 145. I consider myself to be a dedicated student.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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32.

*** 146. I rarely make personal sacrifices in order to get good grades.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 147. Asking teachers and classmates for help is useless when I find a class to be difficult.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 148. I am usually miserable to be around for the rest of the day when I receive a disappointing grade.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 149. I do not put as much effort into my classes when I am having difficulty with them.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 150. I would cut back on my extra-curricular activities in order to improve my grades if I was performing poorly in a class.**

	Completely False	Mostly False	Mostly True	Completely True
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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33. Congratulations! Part 2 is completed.

You have completed the second major components of this assessment.

We would like you take a few moments to stand up and stretch. It is important that you stay fresh as you answer this material since we will be providing you with feedback on your results later this semester.

This feedback will only be useful to you if the information you provide is accurate. When you are ready to resume the assessment, please click the next button.

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34. Part 3

Below are statements that describe how you may think about yourself now. Use the scale below to indicate your level of agreement or disagreement.

Some of the statements might seem like they are the same. Actually similar statements are asking about specific issues on the topic. For example questions 154 and 155 on this page are asking about specific issues you feel confident about.

Please note that this is a 6-point scale.

*** 151. I feel confident analyzing a long-term problem to find a solution.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 152. I feel confident in representing my course work in meetings with my instructor.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 153. I feel confident contributing to discussions about my instructor's teaching method.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 154. I feel confident contributing to discussions about the future of the university.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 155. I feel confident contributing to discussions about policies of the university.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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35.

*** 156. I feel confident contributing to discussions about assignments given to me by my instructors.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 157. I feel confident helping to set targets/goals in my coursework.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 158. I feel confident contacting people outside my classes (e.g., advisors, other students) to discuss problems.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 159. I feel confident presenting information to a group of classmates.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 160. If I should find myself in a jam in a course, I could think of many ways to get out of it.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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36.

*** 161. If I should find myself in a jam at school, I could think of many ways to get out of it.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 162. At the present time, I am energetically pursuing my education goals.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 163. There are lots of ways around any problem.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 164. Right now I see myself as being pretty successful in my classes.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 165. Right now I see myself as being pretty successful at school.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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37.

*** 166. I can think of many ways to reach my current education goals.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 167. At this time, I am meeting the education goals that I have set for myself.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 168. When I have a setback in my coursework, I have trouble recovering from it or moving on.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 169. When I have a setback in my classes, I have trouble recovering from it or moving on.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 170. I usually manage difficulties in my classes one way or another.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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38.

*** 171. I can be "on my own" so to speak, in my classes if I have to.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 172. I can be "on my own" so to speak at school if I have to.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 173. I usually take stressful things in my classes in stride.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 174. I usually take stressful things in school in stride.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 175. I can get through difficult times in my classes because I've experienced difficulty before.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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39.

*** 176. I can get through difficult times in school because I've experienced difficulty before.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 177. I feel I can handle many things at a time in my classes.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 178. I feel I can handle many things at a time in school.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 179. When things are uncertain for me in my coursework, I usually expect the best.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 180. When things are uncertain for me in school, I usually expect the best.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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40.

*** 181. If something can go wrong for me in a class, it will.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 182. If something can go wrong for me academically, it will.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 183. I always look on the bright side of things regarding my education.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 184. I always look on the bright side of things regarding my classes.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 185. I'm optimistic about what will happen to me in the future as it pertains to my education.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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41.

*** 186. I'm optimistic about what will happen to me in the future as it pertains to my classes.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 187. In my classes, things never work out the way I want them to.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 188. In school, things never work out the way I want them to.**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 189. I approach my education as if "every cloud has a silver lining."**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 190. I approach my classes as if "every cloud has a silver lining."**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Rating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BUSN189 Fall 2010 Assessment

42. Congratulations! Part 3 is completed.

You have completed all of the major components of this assessment. Only the demographics are left.

If you think you need a few moments to stand up and stretch, please do this now.

While this part is short, it is just as important as the rest of the assessment.

When you are ready to resume the assessment, please click the next button.

BUSN189 Fall 2010 Assessment

43. Demographics

We would appreciate knowing a little about you. Please complete the following items.

*** 191. Please select your college.**

- Agriculture, Food Systems, and Natural Resources
- Art, Humanities, and Social Sciences
- Business
- Engineering and Architecture
- Human Development and Education
- Pharmacy, Nursing, and Allied Sciences
- Science and Mathematics
- University Studies

*** 192. Please select your academic year.**

- Freshman
- Sophomore
- Junior
- Senior

BUSN189 Fall 2010 Assessment

44. Demographics

* 193. Your ACT score (2 digits):

* 194. Age:

* 195. Gender:

- Male
 Female

* 196. You identify yourself as:

- White
 Black
 Hispanic
 Asian
 American Indian
 International
 Unknown/Other

45. Demographics

*** 197. I live in:**

- Burgum
- Bison Court
- Churchill
- Dinan
- Living Learning Center East
- Living Learning Center West
- Niskanen
- Pavek
- Reed-Johnson
- Seim
- Sevinson
- Stockbridge
- Thompson
- Weible
- Off-Campus

BUSN189 Fall 2010 Assessment

46. Demographics

198. Which section of BUSN 189 are you in?

Tuesday 8:30 a.m.

Thursday 8:30 a.m.

*** 199. Full Name:**

*** 200. Student ID Number (7 digits):**

BUSN189 Fall 2010 Assessment

47. Complete

Thank you for your time and attention. You have now completed the whole assessment.

APPENDIX B. CODEBOOK

Variable	Statement
ESCIU1	I try to resolve conflicts by finding a solution that addresses everyone's interest.
ESCIU2	I describe underlying reasons for my own feelings
ESCIU3	I lead by building pride in the group
ESCIU4	I work well in teams by being supportive.
ESCIU5	I adapt overall strategy, goals, or projects to cope with unexpected events.
ESCIU6	I convince others by developing behind the scenes support
ESCIU7	I see a situation as multiple cause and effect interactions
ESCIU8	I try to resolve conflict by openly talking about disagreements with those involved
ESCIU9	I explain how certain things affect others resulting in a particular outcome
ESCIU10	I work well in teams by being respectful of others
ESCIU11	I see possibilities rather than problems
ESCIU12	I convince others by appealing to their self-interest
ESCIU13	I perceive similarities among different types of situations
ESCIU14	I adapt by applying standard procedures flexibly
ESCIU15	I explain complex events through a system of flow diagrams
ESCIU16	I provide feedback others find helpful for their development
ESCIU17	I coach and mentor others
ESCIU18	I work well in teams by encouraging the participation of everyone present
ESCIU19	I lead by bringing out the best in people
ESCIU20	I explain an event in terms of how multiple factors involved affect each other
ESCIU21	I understand social networks
ESCIU22	I seek to improve by setting measurable and challenging goals
ESCIU23	I see the positive in people, situations, and events more often than the negative
ESCIU24	I understand the team's or organization's unspoken rules
ESCIU25	I show awareness of my own feelings
ESCIU26	I acknowledge my own strengths and weaknesses
ESCIU27	I strive to improve my own performance
ESCIU28	I understand others by listening attentively
ESCIU29	I convince others by getting support from key people
ESCIU30	I resolve conflict by bringing it out into the open
ESCIU31	I convince others by engaging them in discussion
ESCIU32	I identify patterns or trends in seemingly random information
ESCIU33	I understand the values and culture of the team or organization
ESCIU34	I adapt by smoothly juggling multiple demands
ESCIU35	I am able to describe how my feelings affect my actions
ESCIU36	I initiate actions to improve
ESCIU37	I work well in teams by soliciting others' input
ESCIU38	I perceive themes or patterns in events
ESCIU39	I act appropriately even in emotionally charged situations
ESCIU40	I anticipate how others will respond when trying to convince them

Variable	Statement
ESCIU41	I understand the informal processes by which work gets done in the team or organization
ESCIU42	I care about others and their development
ESCIU43	I lead by articulating a compelling vision
ESCIU44	I lead by inspiring people
ESCIU45	I control impulses for the good of others
ESCIU46	I remain composed, even in trying moments
ESCIU47	I see opportunities rather than threats
ESCIU48	I seek ways to do things better
ESCIU49	I work well in teams by encouraging cooperation
ESCIU50	I adapt to shifting priorities and rapid change
ESCIU51	I try to resolve conflict by finding a position everyone involved can endorse
ESCIU52	I control impulses appropriately in situations
ESCIU53	I view the future with hope
ESCIU54	I use metaphors or analogies to describe themes or patterns
ESCIU55	I believe the future will be better than the past
ESCIU56	I seek to improve by taking calculated risks to reach a goal
ESCIU57	I personally invest time and effort in developing others
ESCIU58	I understand others from different backgrounds
ESCIU59	I understand others by putting myself in their shoes
ESCIU60	I interpret a new situation by using an analogy relating it to a different type of situation
ESCIU61	I lead others by creating a positive emotional tone
ESCIU62	I understand the connection between what is happening and my own feelings
ESCIU63	I remain calm in stressful situations
ESCIU64	I understand reasons for another's actions
ESCIU65	I understand others' perspective when they are different from my own
ESCIU66	I understand the informal structure in the team or organization
ESCIU67	When resolving conflict, I de-escalate the emotions in the situation
ESCIU68	I provide on-going mentoring or coaching
ESCIU69	I see an event as a set of cause and effect relationships
ESCIU70	I adapt overall strategy, goals or projects to fit the situation
RAH1	I prefer teachers who have reputations for being demanding
RAH2	I seek help from my teachers when I get bad grades
RAH3	I know when to ask for help if I am working on a difficult homework assignment
RAH4	Right now I'm very involved in my classes
RAH5	I start to doubt my ability as a student if I begin to do poorly in a class
RAH6	My commitment to studying comes and goes throughout the academic year
RAH7	I am willing to risk failing a class in order to learn something new and important
RAH8	I try to get into classes where I pretty much know I can do well

Variable	Statement
RAH9	When I do poorly on a test I can stay calm so I that I can learn from my mistakes
RAH10	I only take classes that I know won't bring down my GPA I am able to do my schoolwork even when the amount of work I have to do seems
RAH11	overwhelming
RAH12	I find it difficult to do well when I doubt my ability to perform well in a class
RAH13	Experiencing anxiety about grades I get in school can actually be a good thing
RAH14	I rarely become overly critical of myself if I am not doing well academically When I do poorly on a test it is usually because the teacher did a poor job of
RAH15	presenting the material The grades I get in a class depend on how tough of a grader my teacher is rather
RAH16	than the effort I put into that class
RAH17	I don't intentionally avoid taking difficult classes I don't feel overwhelmed when I get assigned a lot of schoolwork to do in a short
RAH18	period of time
RAH19	I try to do my best work regardless of the class I'm in I am good at finding ways to decrease my stress (exercising, meditation, seeing a
RAH20	movie) when I am not performing well academically
RAH21	I don't avoid enrolling in difficult classes It is difficult for me to continue working hard in a class even after getting a poor
RAH22	grade on a test or project
RAH23	School is my top priority right now
RAH24	Doing well in school is as important to me as it is to my parents I don't ask for help when I encounter challenging academic tasks, such as a
RAH25	difficult test or a difficult class project
RAH26	In general, the more I prepare for a test the better I do I don't see the purpose of taking a class if I'm not totally confident I will get a
RAH27	good grade in it
RAH28	It is easy for me to "bounce back" from academic disappointments
RAH29	Getting good grades isn't a terribly important goal for me When I make plans for getting my schoolwork done I am confident that I can
RAH30	make them work
RAH31	I am willing to take difficult classes at the risk of getting a bad grade
RAH32	I increase my effort when I am not performing well in a class
RAH33	I don't ask questions when I am confused about my schoolwork
RAH34	I get help when I am not getting the grades I want in school
RAH35	I will not go out with my friends if I need to study for a test
RAH36	I enjoy the challenge of taking difficult classes
RAH37	I am less willing to work hard when I don't get the grades I want right away I intentionally seek out difficult classes so that I will be better prepared for work
RAH38	or for college
RAH39	I put effort into a class even if I don't care about it

Variable	Statement
RAH40	There is little relationship between the amount of time I study and the grades I get
RAH41	When I get a bad grade it is because I have not applied myself
RAH42	I avoid classes I know will require a lot of extra work
RAH43	I have too many competing obligations right now to make my studying top priority
RAH44	I prefer to take easy classes so that I can get good grades
RAH45	I am unwilling to give up my social life in order to get good grades even when I am not doing well in a class
RAH46	It is not hard for me to concentrate even when the course content is really difficult
RAH47	I will work hard in a class even if I think it is boring
RAH48	I go to school even when I am not feeling well
RAH49	Getting a bad grade on a test or a class project puts me into a bad mood for the rest of the day
RAH50	I try to take classes that require the least amount of work
RAH51	I use criticism about my class performance to motivate me
RAH52	I try hard in all of my classes regardless of whether or not I am interested in them
RAH53	Getting a poor grade makes me feel like giving up
RAH54	I work hard for the grades I get
RAH55	I take difficult classes because I know they will benefit me in the future
RAH56	If I work hard I can do well on my coursework even if I find it to be difficult
RAH57	I am able to stay calm even when I think I am not doing well on a test
RAH58	If I had to choose, I would rather learn a lot than get a good grade
RAH59	I usually get frustrated when I don't understand something in class
RAH60	I am more concerned about getting a decent grade than I am about learning the class material
RAH61	I am confident I can do well on a difficult assignment if I work hard
RAH62	I can usually manage the stress that results from taking difficult coursework in healthy ways
RAH63	I am not willing to give up doing something fun if I have schoolwork to do
RAH64	My motivation to learn difficult class material is stronger than my desire to get good grades
RAH65	I don't take my coursework as a student very seriously
RAH66	I know how to get help if I am struggling in a class
RAH67	I enroll in classes even when I know they will require a lot of time and effort on my part to do well
RAH68	It is foolish to risk lowering my GPA by choosing to take difficult classes even if they interest me
RAH69	I prefer to take classes that I know are an easy "A"
RAH70	I am able to push aside any negative thoughts I experience when I am not performing well in a class
RAH71	I am good at calming myself down when I feel anxious about my ability to do well on a test or a class project

Variable	Statement
RAH72	The grades I get are a direct result of the effort I put into my classes
RAH73	I know that with hard work in school I can meet my educational goals
RAH74	I only work as hard as I need in order to pass my classes
RAH75	I consider myself to be a dedicated student
RAH76	I rarely make personal sacrifices in order to get good grades
RAH77	Asking teachers and classmates for help is useless when I find a class to be difficult
RAH78	I am usually miserable to be around for the rest of the day when I receive a disappointing grade
RAH79	I do not put as much effort into my classes when I am having difficulty with them
RAH80	I would cut back on my extra-curricular activities in order to improve my grades if I was performing poorly in a class
COLLEGE RANK	Please select your college
ACT	Your ACT Score
AGE	Age
SEX	Gender
RACE	You identify yourself as:
LIVEIN	
B189SEC	Which section of BUSN189 are you in
CUMGPA	Cumulative GPA

APPENDIX C. IRB LETTER

NDSU

NORTH DAKOTA STATE UNIVERSITY

Institutional Review Board

*Office of the Vice President for Research, Creative Activities and Technology Transfer
NDSU Dept. 4000
1735 NDSU Research Park Drive
Research 1, P.O. Box 6050
Fargo, ND 58108-6050*

701.231.8995

Fax 701.231.8098

Federalwide Assurance #FWA00002439

October 5, 2012

Claudette Peterson
School of Education

Re: Your submission to the IRB: "The first steps toward career success: Can emotional and social competencies and academic hardiness predict success of first year, first semester business students"

Research Team: Staci Pauer


Thank you for your inquiry regarding your project. At this time, the IRB office has determined that the above-referenced protocol does not require Institutional Review Board approval or certification of exempt status because it does not fit the regulatory definition of 'research involving human subjects'.

Dept. of Health & Human Services regulations governing human subjects research (45CFR46, *Protection of Human Subjects*), defines 'research' as "... a systematic investigation, research development, testing and evaluation, designed to contribute to generalizable knowledge." These regulations also define a 'human subject' as "... a living individual about whom an investigator conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information."

It was determined that your project does not require IRB approval (or certification of exempt status) because individual identifiable records are not being obtained for the research. The board makes this determination conditional on your assertions that information received from the College of Business will not be identifiable.

We appreciate your intention to abide by NDSU IRB policies and procedures, and thank you for your patience as the board has reviewed your study. Best wishes for a successful project!

Sincerely,



Kristy Shirley, CIP; Research Compliance Administrator

NDSU is an EO/AA university.

APPENDIX D. PERMISSION TO USE DATA

NDSU

NORTH DAKOTA STATE UNIVERSITY

701.231.8805

www.ndsu.edu/business

College of Business

Office of the Dean

NDSU Dept. 2400

Richard H. Barry Hall

P.O. Box 6050

Fargo, ND 58108-6050

August 8, 2012

Dear Ms. Pauer,

The data you requested was collected as part of the assessment initiatives done by the College of Business in support of our AACSB accreditation. It was collect in BUSN 189 Skills for Academic Success. That course was taught by Mrs. Hopkins; however I was principle investigator (PI) for the assessment process. I authorize you to use the data for your dissertation. The data may not be shared with anyone else without prior written permission from me. All future use of the data for research purposes or publication purposes will need to be approved by me. I reserve the right to be a contributing author on manuscripts, conference presentations, or other items submitted using this dataset. I also reserve the right to bring other contributors on to the manuscript or conference presentation. After your dissertation if you decide to move forward with further use of the data, we will negotiate the specific use and order of authorship at that time.

If this is agreeable, please endorse this letter below and I will forward the data to you once the IRB has approved your use of the data.

Yours in learning,



Tim O. Peterson, Ph.D.
Associate Dean

I agree to the conditions stated above.



Staci Pauer
Doctoral Student in Education



NDSU is an equal opportunity institution.