

## **EXPLORING EMOTIONAL INTELLIGENCE, LEARNER AUTONOMY, AND RETENTION IN AN ACCELERATED UNDERGRADUATE DEGREE COMPLETION PROGRAM**

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### **Abstract**

This article presents the results of research that explored the relationship between emotional intelligence and learner autonomy in the context of nontraditional higher education and their impact on student retention. This was predicated on previous research that suggested emotional intelligence might lead to student success and that autonomous learners persevere toward academic goals with more resourcefulness, initiative, and persistence than other learners do. For this study, 129 nontraditional undergraduate students associated with a small, private, liberal arts college in the northeastern U.S. completed web-based surveys measuring emotional intelligence and learner autonomy. Results indicate a strong relationship between emotional intelligence and learner autonomy. Two of three emotional intelligence constructs and two of four learner autonomy constructs contributed to retention in a logistic regression model. The article concludes with discussion of limitations of the study, suggestions for future research, and how administrators of nontraditional programs can benefit from this study.

There is a new reality on the higher education landscape. No longer are the majority of 18-23 year old students in residential full-time study. Stokes (2006) states that such “traditional” students only account for 16% of higher education enrollments, yet they often constitute the primary focus of higher education administration attention. Reality tells us that the “traditional” student is anything but traditional. Research has found that 40% of today’s students study part-time, 40% attend 2-year institutions, and 58% are age 22 or older (Stokes, 2006).

Choy (2002) affirms that most research defines nontraditional students by age and part-time status. Nontraditional students often have family, work responsibilities, and other life circumstances that interfere with successful completion of educational objectives as traditional, full-time students. Even so, the number of nontraditional learners is growing on campuses across the country leading increasing numbers of colleges and universities to add adult-oriented programs. Nontraditional students seek flexible and fast-paced courses allowing them to meet their educational goals while balancing work and family responsibilities.

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Accelerated learning programs, according to Wlodkowski (2003), are structured for adult students to earn credits, certificates, or degrees in less time than in traditional programs – 20 contact hours in an accelerated course versus 38 in a traditional course. Learning from life experience is a significant reason why adults possess the ability to meet academic learning requirements in fewer contact hours. Kolb (1984) defines experiential learning as, “the process whereby knowledge is created through the transformation of experience” (p. 41).

As higher education administrators recognize a growing adult student population, they must recognize the competing commitments of work and family that hinder adults from finishing a traditional college education. Adults in the researched accelerated program can complete their degree in as few as 16 months by transferring 64 or more credit hours with a cumulative 2.0 GPA from previous college experience. The college also can award up to 24 hours of credit, called the “gap,” with additional transfer credits, assessment of experiential learning, and standardized exams. The combination of credit hours must total 88 hours. When combined with the 36-hour core program, students will have satisfied the academic requirements for degree completion.

Accelerated programming is both classroom-centered and learner-centered. The core curriculum is delivered in the classroom. The potential 24-hour “gap” is “filled in” with student initiated learning. These “gap” credits can be earned pre, post, and/or during the 16-month core program.

Many students successfully complete both the core program and the requisite “gap” credits. Yet a number complete the core, but do not complete the “gap” and thus never graduate. It is unclear why. Perhaps the reasons are external - job advancement opportunities, insufficient income, or lack of time due to family and work responsibilities (Wlodkowski, Mauldin, & Campbell, 2002). Wlodkowski (2003) noted that students needing fewer “gap” credits were more likely to complete their degrees. Maybe reasons are internal – a lack of intelligence, be it mental or emotional, or a lack of ability to take charge of their own learning. In a study related to adult student success in accelerated degree programs, Kasworm (2003) found that unsuccessful students are not able “to negotiate a complex set of strategies, attitudes, and beliefs identified as dedication, motivation, and responsibility to the accelerated program” (p. 21). Swenson (2003) suggests that treating adult learners as active participants in the learning process is more likely to result in meeting learning objectives.

This raises the question to what extent does “gap” success rest on student negotiation, program involvement, or both? Educational formats, such as accelerated learning, involve substantial amounts of independent study and self-directed learning with periods of learner isolation. This study sought to understand why some students successfully navigate the independent study and self-directed portion of the program (complete the “gap”) while others students do not by focusing on the internal dynamics of adult learners. These internal dynamics were represented by emotional intelligence (EI) and learner autonomy (LA), which are explained below. Confessore and Park (2004) presented a simple behavioral model that begins with the interplay of thinking and feeling, giving rise to intentions. If intentions are of sufficient strength, they lead to behavior. This interplay of thinking and feeling can be likened to the construct of EI. According to Mayer, Salovey, and Caruso (2002), emotionally intelligent people use emotions to

regulate feelings, and they use feelings to regulate emotions, hence the use of EI as a variable in this study. The LA work of Carr (1999), Derrick (2001), and Ponton (1999) also built on the Fishbein and Azjen model and focused on intentions, building a framework of constructs comprising LA. Carr (1999), Derrick (2001), and Ponton (1999) propose that if a learner's intentions are of sufficient strength, the learner will persist toward his or her goals, achieving LA, hence the use of LA as a variable in this study. Retention is the third variable in this study because of the interest in students who do or do not satisfy the "gap" (self-directed learning) requirements.

Remaining sections of this article will define and highlight research to date on EI, LA, and retention, explore the potential relationship between EI and LA, and investigate the individual and combined effects of EI and LA on retention. The literature linking EI and/or LA with student success is sparse hence this study. If such a link can be established, educators will better understand how to facilitate student success and perhaps help students close the "gap" and successfully achieve degree completion.

## **Theoretical Foundations**

### *Emotional Intelligence*

The field of EI has its roots in general and multiple intelligence theories. For most of the 20th century, especially since World War I, intelligence was defined by intelligence quotient (IQ) and was a good predictor of general success in school and at work. In the late 20th century, researchers became convinced that success in work and life was attributable to more than just general intelligence (i.e., IQ). Gardner (1995) and Sternberg and Lubart (1996) suggested that general intelligence accounts for only 10 to 20% of academic and career success. Goleman (1995, 1998) and others have been quick to claim that EI accounts for some or most of the remaining 80 to 90%. These claims are debatable, for sure, as the extant research about the predictive power of intelligence has mixed results. However, the conversation about what comprises the difference is worthwhile.

The concept of EI was introduced by psychologists Salovey and Mayer (1990). They connected emotions to intelligence by developing a model that delineates what it means to be smart about one's emotional life and relationships with others. Salovey and Mayer consider EI to be more about cognition than personality and appear to be the earliest developers of an ability-based framework of EI. Mayer and Salovey (1997) built on their earlier research on EI as "the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (p. 5). Several other theorists, such as Rosenberg (1990), Bar-On (1997), and Goleman (1995, 1998), have added to the body of knowledge regarding EI.

A broad EI model was developed by Bar-On (1997), who defines EI as an array of non-cognitive capabilities, competencies, and skills that affect one's ability to deal with life's demands and pressures. Bar-On operationalized his model according to 15 conceptual components that pertain to five emotional and social intelligence domains. The five domains are

(a) intrapersonal, (b) interpersonal, (c) adaptability, (d) stress management, and (e) general mood.

Whereas Salovey and Mayer (1990) focus on mental abilities and Bar-On (1997) focuses on non-cognitive abilities, Goleman's (1995) mixed model focuses on both mental and non-cognitive abilities, especially personality factors. Goleman's model made numerous claims about the ability of EI to predict success in academic contexts. It is for this reason that this study used Goleman's model of EI. The model contains five domains: self-awareness, self-regulation, motivation, empathy, and social skills.

Self-regulation, motivation, and social skills seem to relate most closely to academic success. According to Goleman (1998), self-regulation is "handling our emotions so that they facilitate rather than interfere with the task at hand; being conscientious and delaying gratification to pursue goals; recovering well from emotional distress" (p. 318). In an academic context, self-regulated learners are able to manage disruptive emotions and impulses effectively rather than be derailed from their academic goals; they are dependable in fulfilling academic obligations and are adaptable in handling challenges that arise as they pursue academic goals.

Social skills, according to Goleman (1998), are "handling emotions in relationships well and accurately reading social situations and networks; interacting smoothly; using skills to persuade and lead, negotiate and settle disputes, for cooperation and teamwork" (p. 318). Learners with highly developed social skills might not be as stressed over relationships, are better at managing conflict, and are better at collaborating with family and classmates as they strive toward academic goals (Drago, 2004).

Motivation relates to "using our deepest preferences to move and guide us toward our goals, to help us take initiative and strive to improve, and to persevere in the face of setbacks and frustrations" (Goleman, 1998, p. 318). People strong in this competency are able to remind themselves of the positive feelings that will come when they attain their goals. They also are able to regulate the negative feelings that would discourage them from continuing toward their academic goals. Goleman's emphasis on motivation distinguishes it from other EI models because motivation is a mental ability highly correlated with academic achievement (Atkinson & Feather, 1966; Eysenck, 1953, as cited in Drago, 2004).

### *Learner Autonomy*

Over the last two decades, the concept of LA has gained broader acceptance, becoming a buzz-word within the context of language learning (Little, 1991, as cited in Thanasoulas, 2000). However, the concept of LA in higher education is still under development. Merriam-Webster (1993) defines autonomy as "the quality or state of being self-governing" (p. 78). Autonomy refers to the management of one's own affairs rather than being dependent upon or controlled by another. Considering this definition in the context of general learning, Chene (1983) defines autonomy of the learner as "...independence and the will to learn. Autonomy is a structure which makes possible the appropriation of learning by the learner" (p. 46). Brookfield (1986) suggests that autonomy "centers on the idea that the learner is particularly skilled at setting objectives, locating resources, and designing learning strategies" (p. 56). Chene, however, had argued earlier

that autonomy is not so straightforward, “to be resourceful and to be independent do not equal the achievement of autonomy” (p. 42). In fact, Chene asserts that in self-directed education, the learner is introduced to a new education model. The move from pedagogy to andragogy requires the adult student to learn how to learn. Moreover, one cannot rely on oneself unless the norms and limits of the learning activity are known (Chene, 1983). Thus, one can begin to see the conflicting process and personality characteristic of autonomous learning. Recent research suggests that LA can be viewed as the psychological foundation that leads to the behaviors associated with the process of autonomous learning that includes initiative, resourcefulness, and persistence (Confessore, 1991).

As LA transitions from the context of language learning to higher education generally, momentum is building regarding its value. LA can be justified on three fronts—philosophical, pedagogical, and practical. Autonomy can be justified philosophically on the premise that it prepares people for a rapidly changing future. Bandura (1997) asserts that, “development of capabilities for self-directedness enables individuals not only to continue their intellectual growth beyond their formal education but to advance the nature and quality of their life pursuits” (p. 227). Autonomy can also be justified pedagogically. First, adults learn much more when they are consulted about dimensions of their learning, and second, adult learners can feel more secure in their learning when they are involved in making choices and decisions about the program or course of study in which they are engaged (Brady, 2002). For adult learners in degree completion programs, autonomy can also be justified on a practical front. Student learning, outside the core classroom requirements, necessitates the ability to learn independently because the students cannot depend on faculty access or classroom disciplines to complete the self-initiated gap requirements.

It should be understood, though, that autonomous learning is not “alone” learning. Thanasoulas (2000) suggests, “To acknowledge, however, that learners have to follow certain paths to attain autonomy is tantamount to asserting that there has to be a teacher on whom it will be incumbent to show the way” (§ 11). According to Brady (2002), an autonomous approach to study and learning is an attitude, not a recipe for action. “Autonomy crucially depends on teachers being principled about their teaching and valuing democracy, collaboration and negotiation, trust and confidence-building...” (p. 76). Higher education administrators and faculty can help reduce barriers to learning by becoming facilitators of learning. Adult learners should be recognized as potential co-creators of knowledge. In most adult learning situations, the power distance between the teacher and the learner is modified. The teacher neither controls nor manages; he or she provides information and advice to help learners manage their own learning projects (Tough, 1971). Yet, self-directed learners often need assistance because they do not know what resources are available or what activities are necessary for learning, nor are they able to estimate their current level of performance (Tough, 1967).

Derrick (2002) echoes the recognized challenges of autonomous learning and the link to retention. “Understanding the behaviors associated with persistence in learning is critical to understanding... why some individuals are successful and others are not successful in their learning endeavors” (p. 16). In a recent study by Ponton, Derrick, and Carr (2005) the authors assert that, “In higher education, persistence usually refers to a continuance of study to degree completion within some prescribed time period” (p. 123). They suggest that it is difficult to

understand how people may persist in any endeavor unless they choose to engage in that endeavor over other activities. However, their research found that an adult's persistence in autonomous learning is related more to the anticipation of future rewards of present learning versus the choice to engage in learning activities over non-learning activities. It is, seemingly, this very choice to engage that is requisite for adult students to complete both the core *and* gap requirements in a degree completion program. This study is geared to add more insight into the important and growing body of literature surrounding LA in the context of higher education.

### *Retention*

Defining retention has been complex and challenging for researchers. Many retention studies define retention based on degree completion versus non-completion (Institutional Research and Planning, 2003). Yet, others have related retention to students' learning success as it pertains to achieving their objectives of participation (Kerka, 1988), which may or may not include attaining a degree. For the purpose of this study, retention is defined as continued student participation in a learning event to completion of a degree program.

There are several retention theories. Tinto (1975) identified two variables to be positively correlated with student retention: academic and social integration. That is, the more academic and social integration students experience, the more likely they are to persist. Academic integration is comprised of goal commitment. Social integration focuses on peer group interaction, extracurricular activities, and interactions with faculty, staff, and administrators. Tinto concluded that academic integration directly affects students' goal commitment to degree completion (what they want to achieve) and social integration directly impacts their commitment to the institution (where they want to achieve it).

Bean (1980, 1983) and Bean and Metzner (1985) became dissatisfied with Tinto's (1975) model due to its applicability only to traditional students at 4-year colleges and universities and felt Tinto's emphasis on social integration should be applied differently to nontraditional students who tend to commute rather than live on campus. Therefore, Bean (1983) developed the Student Attrition Model, which is more suitable to understanding retention among nontraditional students. Bean's model is rooted in Price's (1977) organizational turnover model. Price suggested that employees leave organizations because of dissatisfaction with their employers. Bean asserted that students depart from college for the same reason, namely, dissatisfaction with the institution. Bean's model assumes that beliefs shape attitudes and attitudes shape behavioral intentions (Cabrera, Castaneda, Nora, & Hengstler, 1992). This is notably similar to Tinto's (1987) revised model wherein he believed that students enter college with certain intentions, goals, and commitments and after students attempted academic and social integration, they reassessed their intentions, goals, and commitments and decided whether to withdraw or persist toward their goals.

A study conducted by Choy (2002) that focused on persistence in nontraditional students found that among beginning postsecondary students seeking bachelor's and associate's degrees, nontraditional students were much more likely than traditional students to leave without earning any degree and less likely to attain their degree goal within 5 years. Nontraditional students were most at risk of dropping out in their first year regardless of their degree objective. Among

nontraditional students seeking bachelor's degrees, 27% interrupted their enrollment in their first year, compared with 14% of traditional students (Choy, 2002).

Bean and Eaton (2000) detailed a psychological model of college student retention. The foundations of the model were the psychological processes of academic and social integration. They presented four psychological theories to underlie their model: (a) attitude-behavior theory, which provided the overall structure of their model; (b) coping behavioral theory, the ability to assess and adapt to a new environment; (c) self-efficacy theory, an individual's self-perception with regard to specific tasks or situations, and (d) attribution theory, wherein an individual has a strong sense of internal locus of control. Kuh (2005) suggests that engaged college students are involved in educationally productive activities and are developing habits of the mind and heart that engage their capacity for continual learning and personal development. Habits of the mind and heart can map to a student's level of EI, which Jaeger (2001) suggests is an important factor in predicting academic success. The work of Spady (1970), Bean (1983), Bean and Metzner (1985), Bean and Eaton, Kuh, and Jaeger establish the importance of non-cognitive factors as predictors of academic success.

Student endurance, another term for retention, has been considered extensively by Derrick, Ponton, and Carr (2005), who developed a model of quadratic reciprocity to explain the forces necessary for persistence. The model suggests four factors that determine the state of the learner: initiative, resourcefulness, persistence, and self-efficacy. These four factors are co-occurring and bidirectional in nature (Derrick et al.). They believe motivation to engage in a certain behavior (i.e., learning) is based upon what one believes about one's ability to be successful with regard to the outcomes of that behavior. They further indicate that as individuals experience success in learning, their sense of efficacy is enhanced leading to engaging in additional learning of a more difficult nature. These learners continue to learn throughout life and view learning as the never-ending journey of self-fulfillment and self-satisfaction, thereby enabling themselves to accomplish a never-ending stream of personal goals (Derrick et al.). However, it seems fair to ask how learners develop the four factors that comprise the quadratic reciprocity model. Could EI play a role? Furthermore, is there a relationship between EI and LA, and how do these constructs relate to retention, both individually and collectively?

### *The Relationships Among Emotional Intelligence, Learner Autonomy, and Retention*

This study proposed a relationship between the constructs of EI and LA. This proposition is based on Confessore and Park's (2004) Simple Behavioral Model, an adaptation of Fishbein and Ajzen's (1975) model, which depicts the relationships among beliefs, attitudes, intentions, and behaviors (see Figure 1).

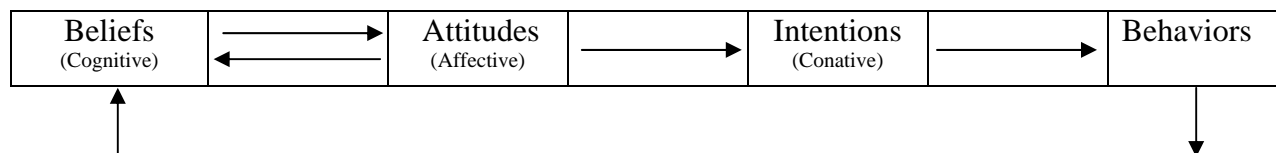
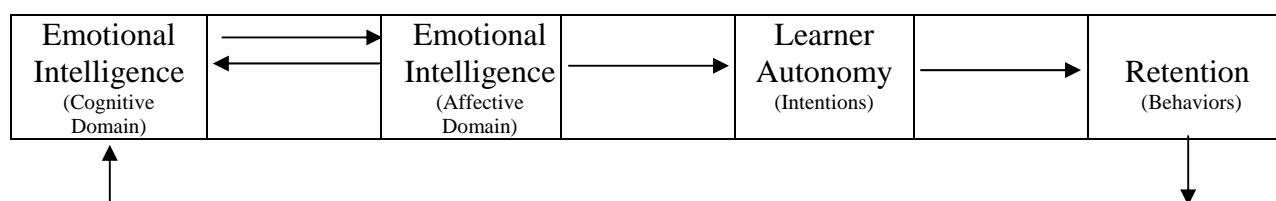


Figure 1. Confessore & Park's model denotes the interplay between beliefs and attitudes, which lead to intentions and changes in behavior and formulation of new beliefs.

Confessore and Park (2004) believe that intentions (a matter of conation) arise from the constant interaction of beliefs (comprised of mental ability) and attitudes (comprised of emotion). Confessore and Park (2004) summarize the model:

When behavioral intentions are focused and of sufficient strength, they lead to, and explain, behaviors. ...the experience of the behaviors often influences beliefs, as represented by the broken line. As beliefs and attitudes are modified in light of the outcomes of previous behaviors, intentions may change and lead to changes in subsequent behaviors. (p. 41)

The present study builds on the work of Confessore and Park (2004) by suggesting that EI contributes to LA, which in turn contributes to greater academic achievement (i.e., retention; see Figure 2).



*Figure 2.* The proposed retention model denotes the interplay between the cognitive and affective domains of EI, which contribute to LA intentions, changes in persistence, and formulation of new beliefs.

Emotional intelligence is the first step in the revised model because EI, as defined by Mayer et al. (2002), is comprised of the interplay between thinking (cognitive domain) and feeling (affective domain). Mayer et al. assert that emotionally intelligent people use thinking to regulate their emotions and they use emotions to regulate their thought processes. Because Fishbein and Ajzen (1975), Bean (1980), Tinto (1987), and Derrick et al. (2005) placed so much emphasis on intentions in their models, intentions became of paramount importance in the proposed model of student retention in degree completion programs. However, the proposed model differs from existing retention models due to its inclusion of EI. The works of Bean and Eaton (2000), Braxton (2000), and Johnson (2002) explore new models and theories of retention that address the issue in a more holistic manner considering students' emotional connections to retention. The inclusion of EI also differentiates the proposed model from existing LA models, such as the model of quadratic reciprocity. This helps set the stage for the purpose of this study—to explore the possible connections among EI, LA, and retention.

There has been limited research on the relationship between EI and retention. Wilkins (2004) found mixed results. On one hand, she found a positive relationship between student retention ratios of online community college learners and nine EI skills (aggression, self-esteem, time management, decision-making, drive strength, stress management, commitment ethic, empathy, and change orientation). However, Wilkins also found that when all 13 EI variables were considered in combination, there was not a significant association with retention in online education.

There is limited but growing research on LA and persistence. Derrick (2002), Ponton et al. (2005), and Derrick et al. (2005) assert that certain forces are necessary for the enduring



learner. Despite finding persistence relates more to the anticipation of future rewards than the choice to engage in learning activities over non-learning activities, Ponton et al. (2005) make the case that students must reach a place where they choose learning over nonlearning if they are going to persist toward learning goals. The forces present in the model of quadratic reciprocity (Derrick et al., 2005) depend on learner *intentions* in the areas of initiative, resourcefulness, persistence, and self-efficacy. But what gives rise to learner intentions? Is it possible that learners with higher levels of EI possess higher levels of LA intentions and higher levels of retention as suggested in the proposed retention model? Based on the suggested interplay between EI (cognitive and affective domains), LA intentions, and retention in the proposed retention model, four hypotheses are offered:

### *Hypotheses*

H<sub>1</sub>: There is a positive relationship between EI and LA.

H<sub>2</sub>: There is a positive relationship between EI and retention.

H<sub>3</sub>: There is a difference in retention rates between students who are low in LA and students who are high in LA.

H<sub>4</sub>: There is a positive relationship between EI and LA and retention.

## **Research Design**

### *Sample*

The focus of this study was students in an accelerated undergraduate degree completion program in a small liberal arts college in the northeastern region of the United States. The sample was a sample of convenience. Data were collected via institutional records and validated web-based instruments described below.

### *Research Variables and Measuring Instruments*

The independent variables in this study were EI and LA. PeopleIndex was used to measure EI. Envisia Learning (2005) developed and tested PeopleIndex, a validated EI self-assessment based on Goleman's (1998) EI model. PeopleIndex is different from other tools based on Goleman's framework in that it focuses on "the most changeable competencies of the Goleman models" and is as useful in education as it is in other industries (K. Nowak, Ph.D., Psychologist and President of Envisia Learning, personal communication, July 20, 2006). According to Envisia Learning (2005), the 17-item PeopleIndex has three scales with moderately high Cronbach's alphas (ranging from .70 to .89):

1. *Self management scale*. Assesses self-development, adaptability/stress tolerance, self-control, trustworthiness, strategic problem solving, and achievement orientation/drive for results.
2. *Relationship management scale*. Assesses building strategic relationships, conflict management, leadership/influence, interpersonal sensitivity/empathy, team/interpersonal support, and collaboration.

3. *Communication scale*. Assesses listening, oral communication, two-way feedback, oral presentation, and written communication.

The other independent variable, LA, was measured using the Learner Autonomy Profile Short Form (LAP-SF). Since the participants of this study were asked to complete two assessments, the authors used the 66-question LAP-SF validated by Confessore and Park (2004) instead of the 173-question long form. Cronbach's alphas for the LAP-SF range from .87 to .93. The LAP-SF measures learners' autonomous learning intentions in four constructs (Human Resource Development Enterprises, 2006):

1. *Inventory of Learner Desire*. Assesses seven dimensions of the respondent's world-view and view of self.
2. *Inventory of Learner Resourcefulness*. Assesses seven dimensions of the respondent's intention to engage in behaviors that constitute essential resources in learning.
3. *Inventory of Learner Initiative*. Assesses five dimensions of the respondent's intention to engage in behaviors associated with initiation of learning processes.
4. *Inventory of Learner Persistence*. Assesses three dimensions of the respondent's intention to engage in behaviors associated with persistence in learning processes.

The dependent variable in this study is retention. Retention was based on the time required for a typical student in a cohort to complete "gap" credits described below. Each cohort program was designed to comprise a period of 16 months. These data were collected via institutional records. Students who completed their core and "gap" credits were considered graduates. Students who had not done so were considered non-graduates.

#### *Data Collection Procedure*

Three-hundred ninety-two nontraditional undergraduate students at a small, private, liberal arts college in northeastern U.S. were invited via email to participate in the study. All had completed the core 36-credit hour cohort-based program, but not necessarily the 24 self-initiated "gap" credits. Of the invited participants, 295 were graduates (completed core and "gap") and 97 were non-graduates (completed core but not "gap"). One hundred twenty-nine (33%) students participated in the study, meaning they completed at least one usable survey. Of that total, 86 students responded to both instruments. Because the hypotheses related to different constructs, the sample size was different for each hypothesis. The number of participants related to each hypothesis is delineated in the findings section.

There were three distinct parts to the data collection procedure. First, HRDE administered the web-based LAP-SF. Ninety-eight students (25%) completed the LAP-SF. Second, Envisia Learning administered the web-based PeopleIndex EI survey. One-hundred twenty-nine students (32.9%) completed PeopleIndex. Eighty-six students (21.9%) completed both the LAP-SF and PeopleIndex. At the end of the surveys, both HRDE and Envisia Learning provided the raw data and scoring protocols. Third, demographic and academic data such as gender, ethnicity, age, campus location, graduation status, GPA, and length of time since their cohort ended was collected from institutional records.

## Findings

Correlation and regression analyses were used to test the hypothesized relationships (i.e., as EI increases, retention increases and EI and LA individually and jointly influence retention).

### *Descriptive Statistics*

The demographics are noteworthy. There were more than twice as many female (91) respondents as male (38). The students ranged in age from 28 to 60 with an average age of 43 ( $SD = 7.19$ ). Over 96% of the respondents were Caucasian with the other 4% being a mix of African American and Native American. There was an almost 4:1 ratio of graduates (102) to non-graduates (27). Interestingly, there was an even split between high LA and low LA. High LA was defined as students whose composite LAP scores fell within the 7-9 stanine range on the LAP-SF and low LA was defined as those students whose scores fell within the 1-3 stanine range on the LAP-SF. Scoring in this manner was confirmed by developer Confessore (personal communication, September 24, 2008).

### *Analyses*

Hypothesis 1 predicted a positive relationship between EI and LA. For this test, only participants who completed both PeopleIndex and the LAP-SF were used ( $n=86$ ). The analysis revealed a significant positive correlation between each EI scale and each LA scale. All but one was significant at the .01 level. The correlation between Resourcefulness and Communication was significant only at the .05 level. The correlation between the composite EI and LAP scales was also significant ( $r = .52$ ;  $p = .00$ ;  $< .01$ ). Therefore,  $H_1$  was supported (see Table 1).

Table 1

### *Correlations – Emotional Intelligence and Learner Autonomy*

	LAP Total	Desire	Res	Init	Persist	Self Mgt	Rel Mgt	Comm	Overall People Index
LAP Total	1								
Desire	.80**	1							
Resourcefulness	.90**	.54**	1						
Initiative	.99**	.56**	.80**	1					
Persistence	.88**	.55**	.80**	.86**	1				
SelfMgt	.53**	.50**	.46**	.41**	.48**	1			
RelMgt	.49**	.50**	.41**	.34**	.40**	.80**	1		
Communication	.39**	.40**	.26*	.33**	.37**	.75**	.65**	1	
Overall People Index	.52**	.52**	.41**	.39**	.45**	.93**	.91**	.88**	1

Note: \*\*  $p < .01$ . \*  $p < .05$ .

Hypothesis 2 predicted a positive relationship between EI and retention. All participants who completed PeopleIndex were included in this analysis ( $n=129$ ). To test this hypothesis, another correlation analysis was performed. Spearman's Rho was used instead of Pearson because the retention variable is dichotomous. The result was not statistically significant ( $r = .08$ ,  $p = .41$ ). Therefore,  $H_2$  was not supported.

Hypothesis 3 predicted there is a difference in retention rates between students who are low in LA and students who are high in LA. For this test, only students who had not graduated within a year of finishing the core program with their cohort were included ( $n=64$ ). The Kruskal-Wallis test was used to test this hypothesis (Chi-Square - .01;  $p = .92$ ), which was not significant at any level.  $H_3$  was not supported (see Table 2).

Table 2

*Chi Square Frequencies – Learner Autonomy and Retention*

	Low LA	High LA	Total
Graduates	28	26	54
Non-graduates	4	6	10
Total	32	32	64

Hypothesis 4 predicted a positive relationship between EI and LA (considered simultaneously) and retention. For this test, only participants who completed both PeopleIndex and the LAP-SF and whose cohort had been finished more than a year were used ( $n=73$ ). This hypothesis was tested using logistic regression. All three group-level EI constructs (self-management, relationship management, and communication) and all four LA constructs (learner desire, learner resourcefulness, learner initiative, and learner persistence) were entered as independent variables. The dependent variable was retention (graduates and non-graduates). The logistic regression equation containing communication, relationship management, initiative, and resourcefulness correctly categorized the retention status of 90% of the sample, explained 12.5% of the variation in retention ( $R^2 = .125$ ), and had a significance of  $p = .045$  ( $X^2=9.74$ ). Therefore,  $H_4$  was partially supported. The contributions of the independent variables are displayed in Table 3.

Table 3

*Logistic Regression – Emotional Intelligence, Learner Autonomy, and Retention*

Variable	Coefficient	Chi-Square	Prob R	Squared Change
Intercept	1.70			
Communication	-1.84	2.64	.10	.039
Rel Mgmt	1.43	1.42	.23	.021
Initiative	-.08	2.90	.09	.041
Resourcefulness	.05	1.67	.20	.024

## **Discussion**

The findings from this study add to the growing body of scholarly literature regarding EI and LA. Few, if any, studies have linked the two fields. It was not surprising to find a positive statistical relationship between EI and LA. The authors wondered what beliefs (cognition) and attitudes (emotions) might contribute to LA intentions and retention. The impulse control, hope, optimism, self-confidence, adaptability, achievement drive, communication, conflict management, and collaboration competencies associated with EI might contribute to increases in intentions toward LA. More research is needed, but an important component of the proposed retention model might have been discovered. If so, academic leaders and instructors will have valuable information to assist in retention efforts.

It was not surprising to learn that relationship management and communication were two of the strongest predictors of retention for this sample. Nontraditional students might have to rely more heavily on interpersonal dynamics to achieve success. It is noteworthy that the students in this sample were all members of cohorts, most of which were cohesive units. The relationship management and communication competencies assessed by PeopleIndex are fostered in the cohort model. Perhaps the cohort model could be used to help students complete their “gap” credits.

It was surprising that self-management was not a strong predictor of retention. The authors believe that self-management is the source of the inner drive and motivation seen in persistent students. More studies with a larger sample are needed before results can be considered definitive.

It was not surprising that resourcefulness and initiative appeared in the regression model. Derrick et al.’s (2005) model of quadratic reciprocity delineates the forces necessary for endurance to goal attainment. Resourcefulness and initiative are two of the three co-occurring, bi-directional dynamics at work within the learner according to their model. However, it was surprising that persistence did not appear in the model. When persistence is examined, it is clear that it should rise in importance in retention. As was stated earlier, Ponton et al. (2005) have proposed that anyone who persists in an endeavor chooses to engage in that endeavor over other activities. However, their research found that an adult’s persistence in autonomous learning related more to the anticipation of future rewards of present learning than the choice to engage in learning activities over non-learning activities. Anticipation of future rewards is a tenet of resourcefulness (Carr, 1999). This study partially confirms the work of Derrick et al. and Ponton et al.

## **Limitations of the Study**

There are limitations to this study that hinder the ability to generalize the findings of this study to a larger population. First, the sample was one of convenience and was relatively small (129 students). The sample was generated from just one small, private liberal arts college. Second, the instrument used to measure EI is based on Goleman’s model, which includes personality factors, something that has been criticized (Gowing, 2001). In addition, the research that supports Goleman’s model is not available for scrutiny in the scholarly community (Conte,

2005; Landy, 2005). Third, a number of participants experienced difficulty accessing one or both instruments from home and/or work computers. As such, this contributed significantly to the response rate.

Another limitation of the research study was using email to introduce the study to the participants. The limitations to the use of emails include the fact that they are not secure and maintaining respondents' anonymity is difficult because a reply to an email message typically includes the sender's address. However, the use of email in this study was strictly to introduce the study to participants and a link was provided for their access to secure internet-based surveys (Zikmund, 2003). A limitation of the internet survey is that some participants could not access the Internet. Another limitation is that the sample consists of those who visit a Web page and voluntarily fill out a questionnaire; therefore, it is not likely to be representative of the entire U.S. population, because of self-selection error (Zikmund). On the positive side, because Internet surveys can be accessed any time from any place there is a computer and an Internet connection, some otherwise hard-to-reach respondents can participate. In addition, data capture is more accurate when the process is automated.

### **Suggestions for Future Research**

There are seven characteristics associated with nontraditional status – financial independence, part-time attendance, delayed enrollment, full-time work, having dependents, single parenthood, and lack of a high school diploma (Choy, 2002). A student possessing four or more of these characteristics is determined to be highly nontraditional. Students in accelerated degree completion programs likely fall in this highly nontraditional category. Research has shown that among students seeking a bachelor's degree, 50% of highly nontraditional students were no longer enrolled after three years (Choy). This troubling statistic is reflective of students who do not complete their gap and are no longer actively enrolled in their course of study. Further research is needed to help such students achieve academic success.

Studies in the field of accelerated learning are modest at best. "The expansion of accelerated learning programs in higher education has far exceeded a rigorous assessment of their context, process, or outcomes" (Wlodkowski, 2003, p. 13). Proponents of accelerated learning must not sacrifice rigorous assessment for continued growth. Investment in assessment activities and further research can lead to greater student retention and success.

Additionally, this study identified a number of researchers who consider EI a fledgling construct. However, there is reason to be optimistic about the potential in this growing field. Studies such as this and future ones can contribute to the field by adhering to robust research methodology and by being available for evaluation and replication.

As an expansion of this particular research, a future study could delve more deeply into how the various demographic factors affect the relationships and differences among the variables. Therefore, for future studies, researchers may want to investigate ethnicity, gender, marital status, and age as factors contributing to student success and retention. In addition, this study found there was a strong correlation between EI and LA; future studies might examine if there is a causal relationship between EI and LA.

This study concentrated on one program; that was clearly a sample of convenience. Those interested in a greater understanding of what gives rise to learner intentions and further exploration of the EI and LA relationship need to extend studies of this nature to a wider sample of colleges and adult students. Such research may identify structures, processes, practices that will increase opportunity for “gap” and overall degree completion.

## References

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Bar-On, R. (1997). *Bar-On emotional quotient inventory (EQ-i): Technical manual*. Toronto: Multi-Health Systems.
- Brady, A. (2002). *Emancipatory student higher learning: The role of autonomy, authenticity, and criticality*. Paper presented at the meeting of the 1<sup>st</sup> Annual JALT Pan-Sig Conference. Retrieved June 19, 2007, from <http://jalt.org/pansig/2002/HTML/Brady.htm>.
- Braxton, J. M. (2000). *Reworking the student departure puzzle*. Nashville, TN: Vanderbilt University Press.
- Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, 55, 485-540.
- Bean, J. P. (1983). The application of a model of turnover in work organizations to the student attrition process. *The Review of Higher Education*, 6, 29-148.
- Bean, J. P., & Eaton, S. B. (2000). A psychological model of college student retention. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 11-28). Nashville, TN: Vanderbilt University Press.
- Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research*, 55(4), 485-540.
- Brookfield, S. D. (1986). *Understanding and facilitating adult learning*. San Francisco: Jossey-Bass.
- Cabrera, A. F., Castaneda, M. B., Nora, A., & Hengstler, D. (1992). The convergence between two theories of college persistence. *Journal of Higher Education*, 63(2), 143-164.
- Carr, P. B. (1999). The measurement of resourcefulness intentions in the adult autonomous learner (Doctoral dissertation, The George Washington University, 1999). *Dissertation Abstracts International*, 60(11), 3849A.
- Chene, A. (1983). The concept of autonomy in adult education: A philosophical discussion. *Adult Education Quarterly*, 34(1), 38-47.
- Choy, S. (2002). *Findings from the condition of education 2002: Nontraditional undergraduates*. (NCES 2002-012). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Confessore, G. J. (1991). Human behavior as a construct for assessing Guglielmino's self-directed learning readiness scale: Pragmatism revisited. In H. B. Long and Associates (Eds.), *Self-directed learning: Consensus and conflict* (pp. 123-146). Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma,
- Confessore, G. J., & Park, E. (2004). Factor validation of the Learner Autonomy Profile, version 3.0 and extraction of the short form. *International Journal of Self-Directed Learning*, 1(1), 39-58.

- Conte, J. M. (2005). A review and critique of emotional intelligence measures. *Journal of Organizational Behavior*, 26, 433-440.
- Derrick, M. G. (2001). The measurement of an adult's intention to exhibit persistence in autonomous learning (Doctoral dissertation, The George Washington University, 2001). *Dissertation Abstracts International*, 62(05), 2533B.
- Derrick, M. G. (2002). Persistence and the adult autonomous learner. In H. B. Long & Associates (Eds.), *Twenty-first century advances in self-directed learning* (pp. 13-30). Schaumburg, IL: Motorola University Press.
- Derrick, M. G., Ponton, M. K., & Carr, P. B. (2005). Enhancing and facilitating self-efficacious behaviors in distance learning environments. *New Horizons in Adult Education*, 19(3), 4-11. Retrieved from <http://education.fiu.edu/newhorizons/journals/volume19no3summer2005.pdf>.
- Drago, J. M. (2004). The relationship between emotional intelligence and academic achievement in nontraditional college students (Doctoral dissertation, Walden University, 2005). *Dissertation Abstracts International*, 65(09), 4811.
- Envisia Learning. (2005). *PeopleIndex facilitator's guide*. Santa Monica, CA: Author.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley. Retrieved from <http://www.people.umass.edu/ajzen/f&a1975.html>
- Gardner, H. (1995). Cracking open the IQ box. In S. Fraser (Ed.), *The bell curve wars* (pp. 23-35). New York: Basic Books.
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ*. New York: Bantam Books.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.
- Gowing, M. K. (2001). Measurement of emotional competence. In C. Cherniss & D. Goleman (Eds.), *The emotionally intelligent workplace* (pp. 83-131). San Francisco: Jossey-Bass.
- Human Resource Development Enterprises. (2006). *Instruments*. Retrieved from <http://www.hrdenterprises.com/inventory.html>
- Institutional Research and Planning. (2003). *Annotated bibliography on student retention research*. Retrieved from <http://www.csupomona.edu/~irp/annotatedBibli.htm>
- Jaeger, A. J. (2001). Emotional intelligence, learning style, and academic performance of graduate students in professional schools (Doctoral dissertation, New York University, 2001). *Dissertation Abstracts International*, 62(2), 486.
- Johnson, R. M. (2002). Investigating the processes of persistence: Refining discourse analysis as a tool for generating new departure theory. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp.157-169). Nashville, TN: Vanderbilt University Press.
- Kasworm, C. A. (2003). From the adult student's perspective: Accelerated degree programs. *New Directions for Adult and Continuing Education*, 97, 17-27.
- Kerka, S. (1988). *Strategies for retaining adult students: The educationally disadvantaged* (ERIC Digest No. 76). Washington, DC: Office of Educational Research and Improvement. Retrieved from [http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/1c/fb/47.pdf](http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1c/fb/47.pdf)
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Upper Saddle River, NJ: Prentice-Hall.



- Kuh, G. D. (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.
- Landy, F. J. (2005). Some historical and scientific issues related to research on emotional intelligence. *Journal of Organizational Behavior*, 26, 411-424.
- Mayer, J., & Salovey, P. (1997). *Ability model of emotional intelligence*. Retrieved from <http://emotionaliq.com>
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2002). *Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) technical brochure*. Toronto, ON: MHS.
- Merriam-Webster's collegiate dictionary* (10<sup>th</sup> Ed.). (1993). Springfield, MA: Merriam-Webster's.
- Ponton, M. K. (1999). The measurement of an adult's intention to exhibit personal initiative in autonomous learning (Doctoral dissertation, The George Washington University, 1999). *Dissertation Abstracts International*, 60(11), 3933A.
- Ponton, M. K., Derrick, M. G., & Carr, P. B. (2005). The relationship between resourcefulness and persistence in adult autonomous learning. *Adult Education Quarterly*, 55(2), 116-128.
- Price, J. L. (1977). *The study of turnover*. Ames: Iowa State University Press.
- Rosenberg, V. (1990). Emotional intelligence and critical thinking: Part 1. *Teaching, Thinking & Problem-Solving*, 12(3), 14-16.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9(3), 185-211.
- Spady, W. (1970). Dropouts from higher education: An interdisciplinary review and synthesis. *Interchange*, 1, 64-85.
- Sternberg, R., & Lubart, T. (1996). Investing in creativity. *American Psychologist*, 51, 677-688.
- Stokes, P. J. (2006). *Hidden in plain sight: Adult learners forge a new tradition in higher education*. Retrieved from <http://www.ed.gov/about/bdscomm/list/hiedfuture/reports/stokes.pdf>
- Swenson, C. (2003). Accelerated and traditional formats: Using learning as a criterion for quality. *New Directions for Adult and Continuing Education*, 97, 83-92.
- Thanasoulas, D. (2000). What is learner autonomy and how can it be fostered? *The Internet TESL Journal*, 6(11). Retrieved from <http://iteslj.org/Articles/Thanasoulas-Autonomy.html>
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89-125.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cure of student attrition*. Chicago: University of Chicago Press.
- Tough, A. (1967). *Learning without a teacher: A study of tasks and assistance during adult self-teaching projects*. Toronto: Ontario Institute for Studies in Education.
- Tough, A. (1971). *Adults learning projects: A fresh approach to theory and practice in adult learning*. Toronto: Ontario Institute for Studies in Education.
- Wilkins, D. D. (2004). The relationship between emotional intelligence and enrollment retention in online education (Doctoral dissertation, Walden University, 2005). *Dissertation Abstracts International*, 65(7), 2471.
- Wlodkowski, R. J. (2003). Accelerated learning in colleges and universities. *New Directions for Adult and Continuing Education*, 97, 5-15.

- Wlodkowski, R. J., Mauldin, J. E., & Campbell, S. (2002). *Early exit: Understanding adult attrition in accelerated and traditional postsecondary programs*. Retrieved from <http://www.capnetwork.org/modules.php?op=modload&name=UpDownload&file=index&req=viewdownload&cid=3>.
- Zikmund, W. (2003). *Business research methods* (7th ed.). Mason, OH: Thomson/South-Western.