

Emotional Intelligence and College Success: A Research-Based Assessment and Intervention Model

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ABSTRACT

This article described a research-based assessment and learning model for improving emotional intelligence skills and competencies essential to success in college. The positive, education model of emotional intelligence developed by Nelson and Low (1977-2006) was presented. Current research findings indicating the importance of emotional intelligence in college success were illustrated and discussed. A major premise was that the positive emotional development of students is a core value of student development and key to academic achievement and student retention. A proactive and systemic strategy to identify and develop emotional intelligence skills facilitated student learning to more effectively manage the complex transitions essential to college success.

The Javelina Emotional Intelligence (EI) Program at Texas A&M University-Kingsville described in this paper received a national award as an exemplary program committed to student development, successful transition to college, achievement, and retention in 2003 from the American College Personnel Association (ACPA).

INTRODUCTION

Transitions through education from school-college-career are challenging and difficult, especially for minority, first generation, and non-traditional college students. These transitions are critical to academic achievement, program completion, and college success. With the current emphasis on academic accountability as measured by tested performance, there needs to be an increased emphasis, and more balanced perspective, on the development of social and emotional learning essential to academic and career excellence. Educational gaps have been created by underachievement and attrition.

Nationally and in Texas, colleges and universities are challenged to provide educational access and opportunity for greater numbers of students and to improve their participation and success rates. Research findings indicate that personal factors and emotional intelligence skills are important to student achievement and college success. New program models are needed to address the issues of low achievement, attrition, lack of motivation, and student engagement.

Research findings indicate that emotional intelligence skills are important and perhaps critical factors of student achievement, retention, and personal health (Nelson and Low, 1999, 2003, 2004, 2005; Epstein, 1998; Bartlett, 2002; Stottlemire, 2002; Vela, 2003; Chao, 2003; Nelson, Jin, and Wang, 2002; Elkins and Low, 2004; Nelson & Nelson, 2003; Williams, 2004; Potter, 2005; and Smith 2004). Extensive interdisciplinary research indicates that emotional intelligence and related non-traditional measures of human performance may be as or more predictive of academic and career success than IQ or other tested measures of scholastic aptitude and achievement (Gardner, 1983, 1993, 1997; Sternberg, 1985, 1995; Goleman, 1995, 1997; Dryden and Vos, 1994; Astin and Associates, 1993; Townsend and Gephardt, 1997; Weisenger, 1985, 1998; Cooper and

Saway, 1997; Epstein, 1998; Nelson and Low, 2003; and Low and Nelson 2004, 2005). These findings provide a compelling case for including emotional skill development in academic and student services programs in schools and colleges.

Colleges have long recognized the importance of experiential and out-of-class co-curricular learning. An early pioneer in student development referred to the need for more effective self-management and “intelligent self direction” (Bennett, 1933). This wise observation by Bennett is true today as qualitative, holistic, emotive, and subjective experiences of students are critical to healthy growth and development. Emotional development of students does not seem important until behavior becomes problematic and reported. Familiar examples are underachievement, bullying, attrition, school violence, absenteeism, substance abuse, lack of motivation, and psycho-educational problems. Even though educators are compassionate, specific help is often absent, ineffective, or too late. Proactive programs to identify and develop emotional skills are needed to prevent problematic behaviors, not react to them after the fact.

EMOTIONAL INTELLIGENCE EDUCATION MODEL

Emotional intelligence (EI) is a learned ability to understand, use, and express human emotions in healthy and productive ways. In our education-based model, emotional intelligence is defined as a confluence of developed abilities to (1) accurately know and value self, (2) establish and maintain healthy and productive relationships, (3) get along and work well with others in achieving positive results, and (4) effectively manage the demands and pressures of daily life and work. Our EI-centric person-centered assessment and learning methods include the *Emotional Skills Assessment Process* (ESAP) and *Emotional Learning System* (Nelson and Low, 1999, 2003). The assessment, learning, and program evaluation models serve as gateways for self-directed experiential learning and to develop specific EI skills, behaviors, and attitudes.

Focused research, study, and experience since 1977 have taught us that the emotional system is key to achievement, college success, and personal health. We learned that there are clear relationships and positive contributions of the experiential system and emotional mind to success and personal well-being. Our education model of emotional intelligence is organized and structured around four competency sets and thirteen skills.

Emotional Skills Assessment Process (ESAP) EI Competencies and Skills

Part I: Relationships and Interpersonal

Assertion
Anger Management
Anxiety Management

Part III: Self Management

Drive Strength
Time Management
Commitment Ethic
Positive Change

Part II: Personal Leadership

Comfort/Social Awareness
Empathy
Decision Making
Leadership/Positive Influence

Part IV: Intrapersonal

Self Esteem
Stress Management

These thirteen emotional skills can be learned to build and foster healthy human development and performance by intentionally using and applying the key skills, attitudes, and behaviors of emotional intelligence on an intentional daily basis. The competency sets and skills are used to develop an EI-centric curriculum to teach and learn the key skills of emotional intelligence.

EMOTIONAL LEARNING SYSTEM

The *Emotional Learning System* (Nelson and Low, 1999, 2003) is a systematic, sequential, step-by-step process to learn, develop, and apply emotional skills. The emotional skills development process requires an active and intentional approach to learning and is based on a positive assessment of emotional intelligence skills. Emotional skills are different from cognitive skills. The *Emotional Learning System* uses person-centered assessment, reflection, constructive thinking, and skill development lessons to guide student learning. The application of learning styles further strengthens the emotional learning process for students. The five step learning process is described.

- **EXPLORE (Self Assessment):** A person-centered assessment students complete as an authentic, inquiring, and discovery process. ESAP surveys are used as a foundation for the learning system.
- **IDENTIFY (Self Awareness):** Students identify skill strengths and weaknesses (changes to make) from their personal assessment of emotional intelligence skills. An action plan is constructed to facilitate and guide learning.
- **UNDERSTAND (Self Knowledge):** Students reflect on their assessment and action plan. Then, they use constructive thinking to learn key EI skills and understand their impact on achievement and college success. The understand process includes learning how emotional skills are important to self-defined and self-directed experiential learning, goal setting, personal responsibility, and goal achievement.
- **LEARN (Self Development):** Students complete lessons and develop practice sessions to more fully develop, strengthen, and enhance skills that are personal priorities. New and improved behaviors, attitudes, and skills require practice to become habits.

- **APPLY (Self Improvement):** Students intentionally attempt to use and model emotional intelligence skills on a consistent and daily basis. The application and use of skilled behaviors and attitudes are learning processes built on reflective and constructive thinking. Students learn that both their cognitive and emotional minds are central to good judgment, responsible behaviors, and successful outcomes.

The *Emotional Learning System* provides a systematic process that students can follow to build the key skills and competencies of emotional intelligence. The learning process demystifies emotional behavior and empowers students through a focus on learning new ways to think, act, and feel.

Emotional Intelligence - College Success Model

Extensive research resulted in an innovative student development program to explore, identify, understand, learn, and apply the key skills of emotional intelligence in a university-wide academic program for freshman students. The program emerged from a partnership between University College and the College of Education through a Title V grant-funded program to improve academic success with first-year students. Two professors in education, Drs. Gary Low and Darwin Nelson, assisted in the design of a research-derived model to implement emotional intelligence skills into college success courses. Their *Emotional Skills Assessment Process* was used as the assessment foundation and their *Emotional Learning System* was used for the instruction and learning component for the *Javelina Emotional Intelligence (EI) Program* at Texas A&M University-Kingsville.

The rationale for the development of the *Javelina EI Program* was that emotional intelligence, as a learned ability, is an essential component for enhancing academic, college, and career success. A structured instructional program was planned and implemented in a core curriculum foundations class taught in each of the five undergraduate academic colleges and University College.

Through an integrative and engaging process, a carefully selected professional team of faculty and administrators, assisted by undergraduate and graduate students, provided structured class lessons and group facilitated activities for freshman students during the early part of the semester. The content of the lessons and the group activities were organized around the specific competencies and skills of emotional intelligence. The lessons and group activities were coordinated with the faculty who teach the class.

The *Javelina EI Program* consisted of a seven-step learning process involving EI assessment, structured lessons, peer/student guided group discussions, and homework. The EI-centric curriculum included Time Management (self management), Drive Strength (goal attainment), and Commitment Ethic (personal responsibility). Guest lecturers, instructors, student facilitators, and students were involved in this national award winning student and academic development program. EI curriculum and lessons were delivered in a seven-step learning process:

Step 1: **Accurate Self-Knowledge.** Students completed the EI Survey *Exploring and Developing Emotional Intelligence Skills*.

- Step 2: Introduction to the importance of emotional intelligence to academic achievement, college success, and career development. Trained guest presenters conducted the class to present EI content and engage students in discussions of college success.
- Step 3: Connecting EI skills assessment to college success. The same guest presenter conducted the class and discussed the student profile of skills from the EI Survey administered in step 1. The EI skill of Time Management was a focal point of the class and the seven-step process.
- Step 4: Structured group facilitated class with student mentors and instructor on Time Management and how to plan and use time for academic success.
- Step 5: Homework and out-of-class activities related to Time Management.
- Step 6: Structured group facilitated class with the same student mentors and instructor. Homework assignment and activities were processed and discussed.
- Step 7: Students organized and turned in an EI packet for academic credit.

From 2001-2004, the *Javelina EI Program* was a central feature of the foundations course. Through the EI curriculum, the program was designed to communicate a caring learning climate for first-year students and provided assistance in the transition from high school to the university environment. The required student success class was used as the venue for this project because it provided a balance of academic development, career exploration, student support, and study skills.

The *Javelina (EI) Program* evolved into an excellent student and academic development program for first-year students. Texas A&M University-Kingsville received national recognition when the program was selected as an exemplary student development program committed to college success (American College Personnel Association, 2003). Further, the program was cited by faculty as an innovative and comprehensive program, which improved student achievement and retention.

RESEARCH FINDINGS

In an initial research project, data from the *Javelina EI Program* showed that achievement and retention rates were improved for students in this program. Analysis of data collected from the EI project indicated a significant difference in Grade Point Average (GPA) between those students who successfully completed the program compared to those who were exposed to but did not complete the EI learning process, and to students in classes that did not participate in the program. A lower GPA, leading to possible dismissal from the institution, was earned for those **not completing** the EI project (68% of GPAs below 2.00). A control group of students who did not participate in the EI project earned lower GPAs (38% of GPAs below 2.00). These data contrasted with the positive findings (only 27% of GPAs below 2.00) for students who completed the EI project. Students who completed the EI project earned significantly higher GPAs. Student retention also was improved (Boyle, 2003).

In addition to a positive effect on academic achievement (GPA), the EI project also had a positive impact on retention. For the Fall cohort (N=1,121) year, 59% of students who completed the EI curriculum were retained compared to 32% retained (N=122) who did

not complete the EI curriculum. There was a 53% retention of control group (N=235) students (Boyle, 2003).

In a more detailed and comprehensive follow-up analysis, Boyle (2004) conducted a study to determine what, if any, differences occurred in terms of retention when utilizing the *Javelina EI Program* in selected undergraduate courses. Retention, in this study, referred to students who were enrolled at the university one year later. The study is presented in the following sections.

Method of Study

Student Success Courses at Texas A&M University-Kingsville provided instruction in strategies for success in the higher education environment. These courses were required for all first-time freshman enrollees. One component of these strategies involved student participation in the Emotional Intelligence (EI) project, where students focused on variables¹ related to emotional intelligence (Nelson & Low, 2003).

This study involved a process whereby students were placed into groups according to one of three levels of exposure to an EI-centric curriculum. Group one consisted of students who participated in and completed all EI instructional components. Group two was composed of those students who had the opportunity to participate in and complete the entire EI curriculum but did not do so. The third cohort was composed of students in classes where the instructor chose not to participate in the EI curriculum, thus forming a control group.

Description of Study

The study encompassed the academic terms of Fall 2002, Fall 2003, and Spring 2004 during which a total of 2,498 students participated. Of this total, 1,344 (54%) were retained while 1,154 (46%) left the institution (Table 1).

Table 1: Emotional intelligence and retention by cohort year

Cohort	E.I. Completed			E.I. Not Completed			No E.I.		
	N	R	NR	N	R	NR	N	R	NR
F2002	764	447	317	122	39	83	235	124	111
F2003	751	419	332	130	49	81	186	104	82
S2004	124	86	38	123	52	71	63	24	39
Totals	1639	952	687	375	140	235	484	252	232

Note. R = Retained; NR = Not Retained

¹ Assertion, Comfort, Empathy, Decision Making, Leadership, Drive Strength, Time Management, Commitment Ethic, Self Esteem, Stress Management, Aggression, Deference, and Change Orientation.

Inferential Analysis

Analysis of data collected from the EI project ($N = 2,498$) suggested a significant difference in retention among those students who successfully completed the project compared to those who did not and the control group. A One-Way Analysis of Variance was used to test for significance (Green, Salkind, & Akey, 2000). The results of this test were $F(2,2495) = 27.3, p = .000$. Students who completed the EI project ($n = 1,639$) were retained at a significantly higher rate ($M = 1.58, SD = .49$) compared to those who did not ($n = 375$) complete the project ($M = 1.37, SD = .48$) and the control group ($n = 484; M = 1.52, SD = .50$).

Fifty eight percent of students completing the EI project ($n = 952$) were retained compared to 37% ($n = 140$) retained who did not complete the EI project and 52% ($n = 252$) retention of control group students. The hypothesis of no significant difference in retention between the students who successfully completed the EI project compared to those who did not and the control group was rejected.

Analysis of data collected from the EI project suggested a significant difference in Grade Point Average (GPA) between those students who successfully completed the project compared to those who did not. A One-Way Analysis of Variance was used to test for significance. The results of this test were $F(2,2495) = 54.7, p = .000$. Students who completed the EI project ($n = 1,639$) earned a significantly higher GPA ($M = 2.28, SD = 1.03$) compared to those who did not ($n = 375$) complete the project ($M = 1.67, SD = 1.16$) and the control group ($n = 484; M = 1.98, SD = 1.13$).

A low GPA leading to dismissal from the institution was significantly higher for those not completing the EI project (54% of GPAs below 2.00) and the control group (41% of GPAs below 2.00) compared to those who completed (30% of GPAs below 2.00) the EI project.

The hypothesis of no significant difference in GPA between students who successfully completed the EI project compared to those who did not was rejected (Boyle, 2004).

Recent doctoral level studies showed a significant relationship between academic performance and the skills of emotional intelligence for both high school and college students in South Texas (Stottlemyer, 2002 ; Vela, 2003; Williams, 2004; Smith, 2004; Potter, 2005). These studies suggested that learning and applying EI skills directly impact the success of students during the critical transition period from high school to college and beyond. A substantive and growing “culture of evidence” illustrated the positive effect of emotional intelligence on academic achievement and retention.

In addition to the positive research findings from institutional and doctoral studies, the EI-centric project resulted in other favorable university outcomes. A rich research data base was developed which resulted in other studies and applied educational research. The integrative and inclusive features of the program provided an array of positive and productive outcomes from a variety of perspectives.

From a student perspective, many students received the benefits of EI-centric instruction and student support services. Undergraduate and graduate peer mentors received EI training and gained experience in facilitating classroom discussions and leading groups in

class. Several graduate students were able to complete supervised internship experiences and graduate research projects in educational applications of emotional intelligence.

From an instructor perspective, a number of faculty participated in EI-centric professional development and gained skills and ideas for engaging students in goal setting, achievement motivation, study, skills, and personal responsibility. Several instructors cited the EI Program for its impact on student achievement.

From a research and educational applications perspective, the EI Program resulted in a number of significant achievements. Several doctoral studies and additional graduate research projects utilized the data and referenced program activities. Interdisciplinary faculty presented programs for numerous national, state, and regional conferences. The Institute for Emotional Intelligence was created and convened on the campus of Texas A&M University-Kingsville in 2004. Each year annual institutes are convened to present, share, and disseminate research findings and application projects featuring EI-centric programs in schools, community colleges, universities, and organizations.

EMOTIONAL INTELLIGENCE AND COLLEGE SUCCESS

For thirty years, there has been a consistent and growing research base that points to the need and value of incorporating personal skills and emotional intelligence into academic and student development programs (Nelson and Low, 1977-2006). There are numerous current examples of student and academic development programs, interdisciplinary faculty research/application projects, doctoral research, and leadership training and development. EI-centric assessment and instructional programs of emotional intelligence skills provide the research and applied learning framework for all of these projects. The most important finding and message of this growing research and application base is that improving emotional intelligence is a key factor in achievement, college success, personal health, career performance, and leadership.

An important new direction is the use of emotional intelligence in institutional effectiveness. EI assessment, intervention, and evaluation provide a valuable research perspective in studying both student performance and institutional effectiveness. Research studies in progress show a positive and significant relationship of EI skills and competencies to student achievement and retention.

In summary, the research literature provides a clear and compelling case for the importance of emotional intelligence to college success, academic achievement, retention, personal health, and leadership. The EI Research Initiative at Texas A&M University-Kingsville provides an academic structure for continuous and on-going doctoral level research, interdisciplinary collaborative research, and dissemination of research data and results. The Institute for Emotional Intelligence is an annual professional conference and provides a 2-3 day forum for sharing applications and disseminating quantitative and qualitative research findings.

With the interest, encouragement, and support of students, teachers, faculty, and administrators, a substantive “culture of evidence” is building to support the positive contributions of emotional intelligence to academic achievement, student retention, and college success.

References

- Astin, A. W., and Astin, H. (1993). *A social change model of leadership development: Guidebook version III*. College Park, MD: National Clearing House for Leadership Programs.
- Bennett, M. E. (1933). *College and life*. New York: McGraw-Hill.
- Bartlett, T. (2002). Freshmen pay, mentally and physically as they adjust to life in college. *The Chronicle of Higher Education*, 48, 35-37.
- Boyle, J. R. (2003). [An analysis of an emotional intelligence skills development training program and student achievement and retention]. Unpublished raw data, Texas A&M University-Kingsville.
- Chao, Chuan-ta. (2003). *Foreign language anxiety and emotional intelligence: A study of EFL students in Taiwan*. Unpublished doctoral dissertation, Texas A&M University-Kingsville.
- Cooper, R. K., and Saway, A. (1997). *Executive EQ: Emotional intelligence in leadership and organizations*. New York: Putnam.
- Dryden, G., and Vos, J. (1994). *The learning revolution*. Winnipeg, Canada: Skills of Learning Publications.
- Elkins, M. and Low, G. (2004). *Emotional intelligence and communication competence: Research pertaining to their impact upon the first-year experience*. Unpublished raw data, Texas A&M University-Kingsville.
- Epstein, Seymour. (1998). *Constructive thinking: The key to emotional intelligence*. Westport, CT: Prager.
- Gardner, H. (1983). *Frames of mind*. New York: Basic Books.
- Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.
- Goleman, D. (1995). *Emotional intelligence: Why it can matter more than IQ for character, health, and lifelong achievement*. New York: Bantam Books.
- Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.
- Low, G. and Nelson, D. (2004, Spring). "Emotional intelligence: Effectively bridging the gap from high school to college." TEXAS STUDY of Secondary Education, Vol. XIII, No. 2, pp. 7-10.
- Low, G. and Nelson, D. (2005, Spring). "Emotional intelligence: The role of transformative learning in academic excellence." TEXAS STUDY of Secondary Education, Vol. XIV, No. 2, pp.41-44.
- Nelson, D., Jin, Y., & Wang, X. H. (2002). Reliability and validity parameters for the Chinese version of the emotional intelligence skills assessment process. Unpublished raw data, East China Normal University, Shanghai, China.
- Nelson, D., and Low, G. (1999). *Exploring and developing emotional intelligence skills*. Kingsville, TX: EI Learning Systems.

- Nelson, D., and Low, G. (2003). *Emotional intelligence: Achieving academic and career excellence*. Upper Saddle River, NJ: Prentice-Hall.
- Nelson, D., Low, G., and Vela, R. (2003). *ESAP Emotional Skills Assessment Process: Interpretation and Intervention Guide*. Texas A&M University-Kingsville, Kingsville, Texas.
- Nelson, D., and Nelson, K. (2003). *Emotional intelligence skills: Significant factors in freshman achievement and retention*. (ERIC Document Reproduction Service No. CG032375)
- Potter, G. (2005). *The impact of an emotional intelligence intervention program on freshman at a South Texas higher education institution*. Unpublished doctoral dissertation, Texas A&M University-Kingsville.
- Smith, M. E. (2004). *A mixed paradigm: study of a transformational learning program for at-risk high school students*. Unpublished doctoral dissertation, Texas A&M University-Kingsville.
- Sternberg, R. J. (1985). *Beyond IQ: A triarchic theory of human intelligence*. Cambridge: Cambridge University Press.
- Sternberg, R. J. (1995). *Successful intelligence: How practical and creative intelligence determine success in life*. New York: Simon & Schuster.
- Stottlemyer, B. G. (2002). *A conceptual framework for emotional intelligence in education: Factors affecting student achievement*. Unpublished doctoral dissertation, Texas A&M University-Kingsville.
- Townsend, P., and Gebhardt, J. (1997). *Five star leadership*. New York: Wiley.
- Vela, R. (2003). *The role of emotional intelligence in the academic achievement of first year college students*. Unpublished doctoral dissertation, Texas A&M University-Kingsville.
- Weisenger, H. (1985). *Dr. Weisenger's anger work-out book*. New York: Quill Press.
- Weisenger, H. (1998). *Emotional intelligence at work*. San Francisco: Jossey-Bass.
- Williams, M. H. (2004). *Achievement and retention patterns in a predominantly Hispanic serving institution of higher education*. Unpublished doctoral dissertation, Texas A&M University-Kingsville.