

DOES STUDENT LEADERSHIP PARTICIPATION ENHANCE THE
DEVELOPMENT OF EMOTIONAL INTELLIGENCE

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ABSTRACT

Does Student Leadership Participation Enhance the Development of

Emotional Intelligence

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Emotional Intelligence is believed to explain how emotions may be used, monitored, and measured to predict workplace success and failure, the suggestion that if individuals can balance the emotions within themselves and others, they can use their skills to better their organization. This study explored the development of Emotional Intelligence in the ASI Student Manager Team in comparison to Student Government members at California Polytechnic State University, San Luis Obispo (Cal Poly) during the fall 2008 quarter. The Bar-On Emotional Quotient Inventory (EQ-i) was used to assess student leaders' Emotional Intelligence (EI) development ($N = 27$). A two sample t-test was used to identify any significant difference in the Emotional Intelligence scores between the two groups. Findings indicated significant training effects on respondent's scores when considering assertiveness, happiness, and empathy.

Keywords: Emotional Intelligence, Students, Student Employment, Student Managers

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Chapter 1 Introduction

Introduction

Approximately 2,000 years ago, Plato wrote that all learnings have an emotional base. Little did he know that philosophers, researchers, and scientists would spend the next two millennia testing the validity of that statement. Many perceive emotions as a sign of weakness or vulnerability, but in the past two decades, that perception has evolved. An individual's emotional intelligence (EI) is now considered to be as useful, if not more so, than their Intellectual Quotient (IQ) when it comes to success in the workplace (Law, Wong, & Song, 2004; Sy, Tram & Hara, 2006).

Gone are the days that an individual's IQ is the deciding factor for whether or not they would be offered a job. Companies are realizing that aptitude for success is not necessarily measured by a person's "book smarts", but by their "street smarts" as well. IQ has been shown to predict an average of 6% of success in any given job, while EI has been directly responsible for between 27% and 45% of job successes (Stein & Book, 2006). These findings have changed the way employers look at potential employees. Today, emotional intelligence growth is a leading reason that employees seek executive coaching. Having strong emotional intelligence skills not only gives a candidate a competitive edge, it also provides a more well-balanced and successful work life (Fernandez, 2007).

Background

As high school students research potential colleges, many are looking for a school that will fit their needs in the classroom. While learning styles and intellectual growth are important, an often overlooked and somewhat new form of intelligence is being obtained

outside of the classroom. Although the framework of EI is continually evolving, research has demonstrated the usefulness of EI for students that attend college (Charbonneau & Nicol, 2002). Current research has shown the positive relationships between EI and college students' first year academic success, life happiness, reduced depression, and effective leadership (Schutte et al., (1998), Martinez-Pons, (1997), and Barling, Slater, & Kelloway (2000) (as cited in Charbonneau & Nicol, 2002)). In an effort to increase EI, students may look for employment activities that will expand their EI tool box.

Associated Students, Inc. (ASI) at California Polytechnic State University, San Luis Obispo (Cal Poly) is a 501c3 non-profit organization public benefit corporation and auxiliary organization that operates under the authority of the State of California and the Board of Trustees of the California State University (CSU) System. ASI's vision is to be every student's connection to the ultimate college experience (www.asi.calpoly.edu/about/mission). The organization was designed to enrich the quality of student life and to complement the educational mission of Cal Poly through shared governance, student employment, student advocacy, and a broad spectrum of programming, services, and opportunities for leadership and social interaction (www.asi.calpoly.edu/about/mission.php).

The organization is overseen by the ASI Executive Director who works directly with Student Government to ensure that ASI initiatives support the student population. The ASI student governance structure consists of three branches: the Executive Staff under the ASI President, the ASI Board of Directors (BOD) under the Chairman of the Board, and the University Union Advisory Board (UUAB) under the Chair of the UUAB.

ASI employs over 500 Cal Poly students. To further support the mission of the organization, ASI has developed a team of students, both undergraduate and graduate, to participate as members of the ASI Student Manager Team. As members of the Student Manager Team, students are mentored as para-professionals by given fiscal and supervisory responsibility, and attend bi-monthly meetings and training sessions to develop their leadership skills. However, little to no emphasis is given to the development of interpersonal skills or EI.

The Student Manager Team was formed in 1988 when planning for the new Recreation Center began. At that time, the team consisted of three full-time staff members and six student managers and graduate assistants (M. Maloney, personal communication, June 5, 2007). Student Manager's main responsibilities included policy development, space use, layout design, and programming structure. As the years passed, ASI Programs has expanded, as have the number of Student Managers. For the 2007-08 academic year, the Leadership Team consisted of 20 members from the following areas: University Union Front Line Services, Craft Center, Poly Escapes, ASI Events, University Union Building Supervisors, Audio Visual, University Union Set-Up, Public Relations, Human Resources, Fitness, Aquatics, Intramurals, Recreation Center Events, Recreation Center Building Supervisors, Recreation Center Front Line Services, and Marketing/Outreach. While the Student Manager Team has grown in numbers in the past twenty years, it has become stagnant in regards to the professional development trends of current University training and development for college students (D. Connor, personal communication, March 10, 2008).

Need for the Study

In response to recent feedback from Student Managers, ASI is looking to restructure their training and development program to more adequately prepare students for post-college employment. Through post-training questionnaires, current Student Managers noted a lack of professional development including guidance on how to handle difficult employees, how to manage their own emotions under stress, and how to work with and manage their employees' emotions. Student Managers also indicated a desire for guidance on preparation of resumes, cover letters, and post-college employment portfolios. A potential restructure of the Student Manager Team would incorporate key components of EI into the two-day Student Manager training that students attend prior to Fall quarter, and the bi-monthly Student Manager meetings that students are required to attend.

In addition to Student Managers, the findings of this study could be useful for numerous Student Affairs professionals looking to enhance their student employees' EI competency. Findings could be used by Human Resources departments as a marketing tool to draw students into leadership positions. The information gathered from this study could also be used to promote and entice uninvolved students into participation in various leadership roles. Students outside of the ASI organization may use the results to identify the benefits of their involvement in a student leadership role and consider joining the organization as a way to enhance their own EI. Although the information gathered from this study will directly benefit ASI, the results will be shared with other Student Affairs professionals in an attempt to fill the need for student development that currently exists.

Purpose Statement

The purpose of this study is to examine the development of Emotional Intelligence characteristics in ASI Student Government members and ASI Student Managers during Fall Quarter 2008.

Research Questions

1. How do Student Managers measure on Emotional Intelligence?
2. How do ASI Student Government members measure on Emotional Intelligence?
3. Are there significant differences in Emotional Intelligence scores between the two groups?
4. Does training influence Emotional Intelligence scores?

Delimitations

The subjects of this study were 14 members of the Student Manager Team at Cal Poly, San Luis Obispo. The control groups for this study were 14 self selected Student Government members. Subjects were tested during their first day at work, prior to on the job training. Subjects were administered the online version of the EQ-i during their first 30 minutes of training. After a 10 week period, all subjects were re-administered the EQ-i to determine if Emotional Intelligence increased.

Definition of Terms

1. Emotional Intelligence (EI): The ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to reflectively regulate emotions in ways that promote emotional and intellectual growth.

2. Students: Currently enrolled undergraduate and graduate students at Cal Poly.
3. Student Employment: Students that are currently enrolled in six or more units and working a maximum of 20 hours per week for ASI.
4. Academic Quarter: Per the Cal Poly 2008-09 Academic Calendar, Fall quarter 2008 is September 22 through December 12, 2008.
5. Student Managers: The group of undergraduate and graduate students that collaborate to enrich and develop all areas of ASI programs, student staff, and their own personal growth.

Summary

Due to the lack of professional development training and the need to restructure the ASI Student Manager Team, a study was needed to ensure the viable future of the program. This study examined the effectiveness of Emotional Intelligence (EI) training and professional development throughout the course of one academic quarter on members of the ASI Student Manager Team. In addition, Student Government members were also examined to determine if the current structure of training for that position was effective in increasing EI. This program had never been examined before and findings were shared with the ASI Executive Director, University Housing, the Week of Welcome Program, and other ASIs in the CSU system that utilize the Student Manager Team model.

Chapter 2 Review of Literature

Introduction

The theory of Emotional Intelligence (EI) is still a fairly new concept in scholarly literature, with many still debating how to define, measure, and test its validity. This section will cover the history of Emotional Intelligence, the three major models of Emotional Intelligence, the relevance of Emotional Intelligence in the workplace, the relationship between Emotional Intelligence and leadership success, assessment of Emotional Intelligence, and Emotional Intelligence training. In addition, this review of literature will examine the relationship between Emotional Intelligence and student leadership development.

History of Emotional Intelligence

Philosophers have debated the relationship between emotion and thought for over two millennia. Stoics of ancient Greece and Rome believed that emotions were too volatile and heated to be used for rational thought purposes (Grewal & Salovey, 2005). In the 1930s, Robert Thorndike proposed the concept of social intelligence as an ability to perceive their own and others' internal states, motivations and behaviors (Thorndike & Stein, 1937). The topic was drawn to the literary surface again in 1958 when David Wechsler proposed the definition of general intelligence as "the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his [or her] environment" (Wechsler, 1958, p. 7). Wechsler was also the first to propose that "non-intellective" aspects of a person can contribute to not only their overall intelligence level, but can also be used as a factor to predict a person's ability to succeed in life.

The topic of social intelligence lay dormant for decades until 1983 when Howard Gardner released his book *Frames of Mind* where he outlined seven forms of intelligence, including intrapersonal intelligence:

The core capacity at work here is access to one's own feeling life – one's range of affects or emotions: the capacity instantly to effect discriminations among these feelings and, eventually to label them, to enmesh them in symbolic codes, to draw upon them as means of understanding and guiding one's behavior. In its most primitive form, the intrapersonal intelligence amounts to little more than the capacity to distinguish a feeling of pleasure from one of pain...At its most advanced level, the intrapersonal knowledge allows one to detect and to symbolize complex and highly differentiated sets of feelings...to attain a deep knowledge of...feeling life. (p. 239).

After the release of *Frames of Mind*, a renewed interest and consideration of multiple intelligences arose and the investigation into Emotional Intelligence began.

Models of Emotional Intelligence

Although research on EI is still fairly new, there are three main models of EI that have received the most attention and produced the most research. First, the Mayer, Caruso, & Salovey (2000) model of Emotional Intelligence that structures EI into a four-branch model, second the Bar-On (2000) model of emotional and social intelligence that suggests non-cognitive capabilities and competencies influence a person's ability to cope with everyday demands and pressures, finally, the Goleman, Boyatzis, and McKee (2002) emotional competence model that frames EI as a group of abilities and skills that are predictors of life and career success. The development of each model was for different

reasons under different contexts. Therefore, each is dissimilar in their definitions and measurements of EI.

Mental Ability Model

The Mayer, Caruso, & Salovey model was developed under the context of research on intelligence and emotions with the purpose of defining a type of intelligence that involves emotional information (Chang, 2006). Emotions are internal events that coordinate many psychological subsystems including physiological responses, cognitions, and conscious awareness (Mayer, Caruso, & Salovey, 2000). Emotions can arise due to a number of different factors including changing relationships, stress, conflict, or success. “Emotional Intelligence is 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” (Mayer & Salovey, 1997, p.10) (see Figure 1).

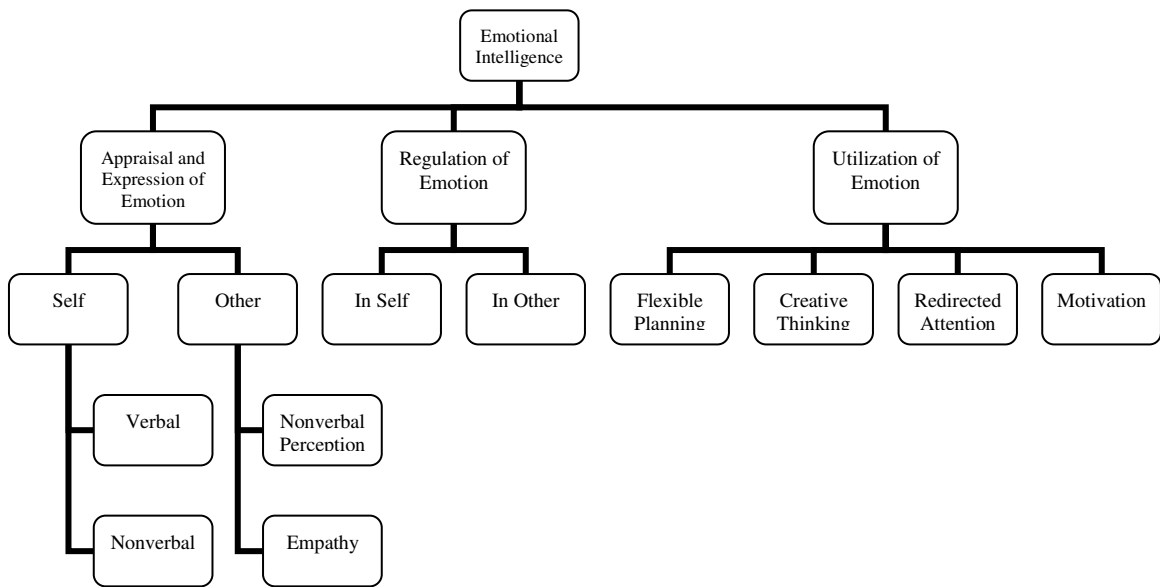


Fig. 1. Conceptualization of Emotional Intelligence (Salovey & Mayer, 1990).

EI is often characterized as a cognitive ability involving the cognitive processing of emotional information (Qualter, Gardner, & Whiteley, 2007). Mayer, Caruso, & Salovey proposed a four-branch model of Emotional Intelligence encompassing the following psychological processes: an awareness of one's own and others emotions and an ability to monitor emotions and express them appropriately, an ability to use emotions to facilitate thought and to guide selective attention, an ability to understand emotions, and the ability to regulate or manage emotions (see Figure 2). The four branches of the model are arranged from the more basic psychological processes to the higher more psychologically integrated processes (Mayer & Salovey, 1997).

The lowest branch, "Perceiving and Expressing Emotion," "concerns the accuracy with which individuals can identify emotions and emotional content" (Mayer & Salovey 1997, p. 10). This includes the ability to identify emotions in faces, voice, tone, pictures, music, or any other stimuli (Mayer, Salovey et al., 2001) while "Using Emotions" involves how emotions enter the cognitive system and alter cognition to assist thought (Chang, 2006). For example, a person who excels at perceiving emotions will be able to identify when a friend is angry by decoding their facial expressions or body language. "Perceiving and Expressing Emotion" is considered the most basic skill because the ability to perceive emotions in others makes all other processing of EI possible (Grewal & Salovey, 2005; Mayer & Salovey, 1997).

The second branch, "Using Emotions," is "the ability to harness emotional information to facilitate other cognitive activities" (Grewal & Salovey, 2005). Emotions serve as an alerting system from birth, signaling important changes in the person or their environment. As a person matures, their alerting system evolves with them. Something

that may have alerted a child will no longer signal an adult because their emotions have been conditioned to know the difference in situations (Mayer & Salovey, 1997). There is also a distinction between the second branch and the other three. “Using Emotions” involves the ability to understand what emotions signify and to manage them regardless of ability to perceive emotions accurately (Chang, 2006). The first three branches involve using reasoning to understand emotion, branch two does the opposite and uses emotions to enhance reasoning (Mayer, Caruso, Salovey, & Siterenios, 2001).

The third branch, “Understanding Emotions,” is “the ability to comprehend information about relations between emotions, transitions from one emotion to another, and to label emotions using emotion words” (Grewal & Salovey, 2005 p.334; Mayer, Caruso & Salovey, 2000; Mayer & Salovey, 1997). As a person matures, they begin to recognize the existence of complex, contradictory emotions in situations and can recognize the blending or combinations of emotions (Mayer & Salovey, 1997). Every emotion that an individual feels follows its own set of rules. As the emotion progresses, it moves along a spectrum according to that particular emotion’s characteristic rules (Mayer, Caruso, & Salovey, 2000). “Emotional Intelligence involves the ability to see the pieces, know how they move, and reason about emotions accordingly” (Mayer, Caruso & Salovey, 2000, p.270).

The fourth and highest branch, “Reflectively Regulating Emotions,” involves the ability to manage one’s emotions and the emotions of others. This branch is where a person consciously regulates their emotions to enhance emotional and intellectual growth (Grewal & Salovey, 2005; Mayer, Salovey, 1997). To reach this branch, a person must tolerate and welcome the emotions they are feeling. Feelings must be attended to

regardless of whether or not they are pleasant. Emotional Intelligence does not presume that a person is never in a bad mood. EI simply states that without recognizing the mood, a person will not learn or grow from experiencing the mood.

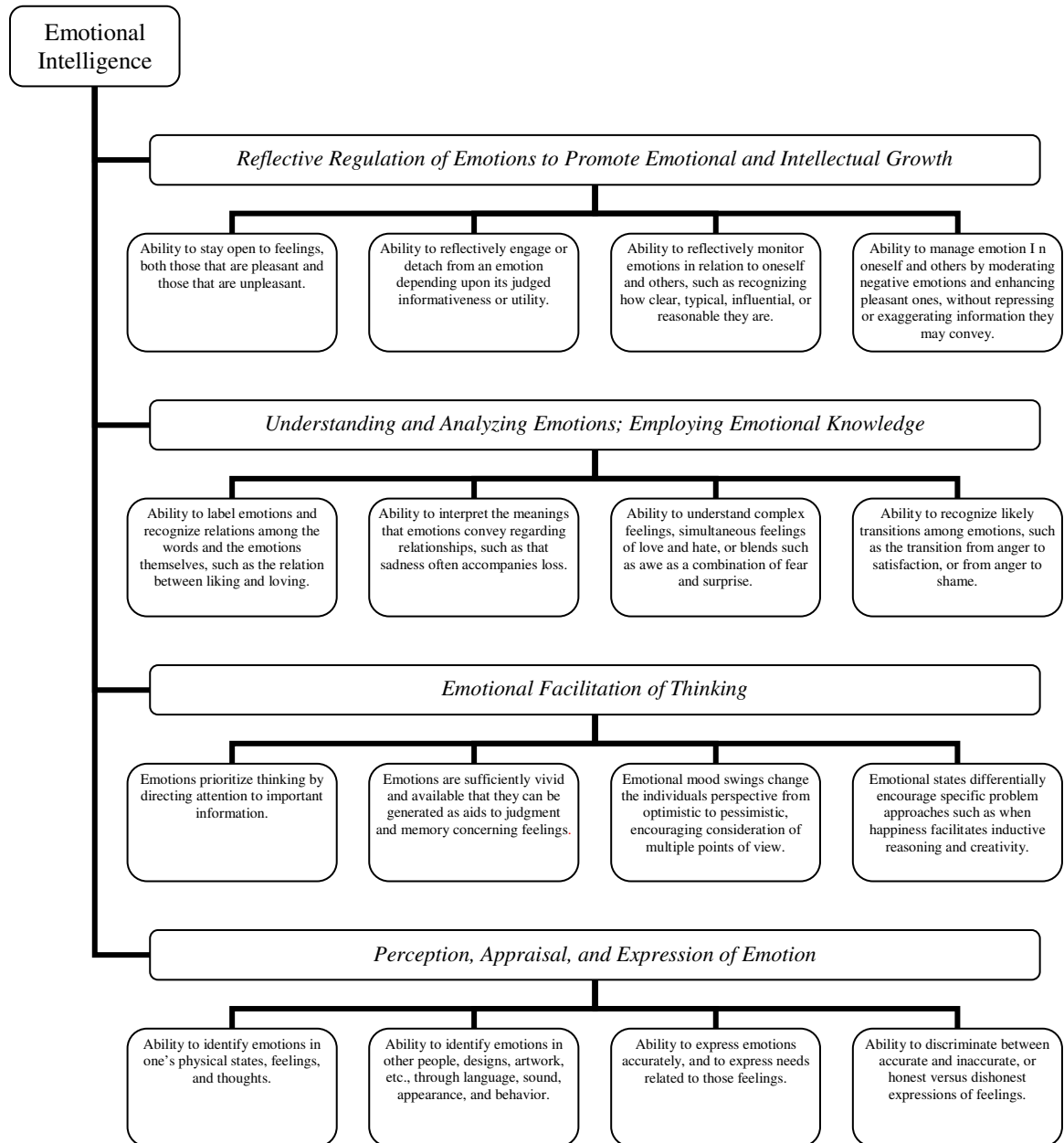


Fig. 2. Emotional Intelligence Detailed Four Branch Model (Mayer & Salovey, 1997).

In a sense, EI can be viewed as an enabling tool to assist people to make their way through an ever-increasingly complex world. If used as a tool, EI is the ability to feel emotions in response to others, understand the emotions you are feeling, understand how others are feeling, and then, most importantly, move forward in a manner that will benefit all parties (Fernandez, 2007).

Emotional Intelligence Quotient Model

EI or noncognitive intelligence has been described as an array of emotional, personal, and social abilities that affect one's overall ability to effectively manage the realities of day to day life through effective understanding and control of emotions (Bar-On, 1997). Emotional quotient is conceptualized into five major areas and fifteen subscales (Bar-On, 2000).

The first major area, "Intrapersonal," includes five subscales. "Self Regard" is the ability to be aware of, understand, accept, and respect oneself. "Emotional Self Awareness" is the ability to be aware of and understand one's feelings. "Assertiveness" is the ability to express feelings, beliefs, and thoughts and defend one's rights in a nondestructive manner. "Independence" is the ability to express feelings, beliefs, and thoughts and defend one's rights in a nondestructive manner. "Self Actualization" is the ability to realize one's potential capacities and to do what one can do, wants to do, and enjoys doing.

The second major area, "Interpersonal," includes three subscales. "Empathy" is the ability to be aware of, to understand, and to appreciate the feelings of others. "Social Responsibility" is the ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group. "Interpersonal Relationship" is the ability to

establish and maintain mutually satisfying relationships that are characterized by emotional closeness, intimacy, and by giving and receiving affection.

The third major area, “Stress Management,” includes two subscales. “Stress Tolerance” is the ability to withstand adverse events, stressful situations, and strong emotions without “falling apart” by actively and positively coping with stress. “Impulse Control” is the ability to resist or delay an impulse, drive, or temptation to act, and to control one’s emotions.

The fourth major area, “Adaptability,” includes three subscales. “Reality Testing” is the ability to assess the correspondence between what is emotionally experienced and what objectively exists. “Flexibility” is the ability to adjust one’s emotions, thoughts and behavior to changing situations and conditions. “Problem Solving” is the ability to identify and define problems as well as to generate and implement potentially effective solutions.

The fifth and final major area, “General Mood,” includes two subscales. “Optimism” is the ability to look at the brighter side of life and to maintain a positive attitude, even in the face of adversity or negative feelings. “Happiness” is the ability to feel satisfied with one’s life, to enjoy oneself and others, and to have fun and express positive feelings.

Emotional quotient is considered a mixed model because of its combination of basic abilities (mental ability model), and relationship to intelligence (problem solving), but also includes elements that have no connection to intelligence such as optimism (Chang, 2006).

Emotional Competence Model

Whereas EI is described as a set of abilities, emotional competence is seen as a acquired competency based on Emotional Intelligence that has an outcome of strong workplace performance (Goleman, 1998). Goleman has gone on to dispute that EI by itself can successfully predict job performance. Instead, EI can provide insight to the competencies that are relevant. “Emotional competence includes specific skills, abilities, talents, and characteristics” (Jacobs, 2004, p. 25). An individual with high EI demonstrates the competencies that comprise self-awareness, self management, social awareness and social skills in situations that are appropriate and effective (Boyatzis et al., 2000).

The emotional competence model is comprised of twenty competencies arranged into four clusters (Sala, 2001). The first cluster, “Self Awareness,” includes the Emotional Self-Awareness, Accurate Self Assessment, and Self Confidence competencies. The second cluster, “Social Awareness,” includes the Empathy, Organizations Awareness, and Service Orientation competencies. The third cluster, “Self Management,” includes the Emotional Self Control, Transparency, Optimism, Adaptability, Achievement Orientation, and Initiative competencies. The fourth and final cluster, “Relationship Management,” includes the Developing Others, Inspirational Leadership, Influence, Change Catalyst, Conflict Management, and Teamwork and Collaboration competencies (see Table 1).

Table 1. The five components of Emotional Intelligence at work (Goleman, 1998, p. 95).
The five components of emotional intelligence at work

EQ component	Definition	Hallmarks
Self-awareness	The ability to recognize and understand your moods, emotions, drives, as well as their effects on others	Self-confidence; realistic self-assessment; self deprecating sense of humor
Self-regulation	The ability to control or redirect disruptive impulses or moods...the propensity to suspend judgment-to think before acting	Trustworthiness and integrity; comfort with ambiguity; openness to change
Motivation	A passion to work for reasons that go beyond money or status...a propensity to pursue goals with energy and persistence	Strong drive to achieve; optimism, even in the face of failure; organizational commitment
Empathy	The ability to understand the emotional makeup of other people...skill in treating people according to their emotional reactions	Expertise in building and retaining talent; cross-cultural sensitivity; service to clients and customers
Social skills	Proficiency in handling relationships and building networks...an ability to find common ground and build rapport	Effectiveness in leading change; persuasiveness; expertise in building and leading teams

Similar to Bar-On's Emotional Quotient model, the emotional competence model looks at a multitude of factors that cover both preferences and abilities (Chang, 2006). Jacobs (2004) noted that Emotional Intelligence is a universal term that serves as an umbrella and encompasses the above set of emotional competencies.

Emotional Intelligence in the Workplace

Emotional Intelligence plays a considerable role in the workplace (Goleman, Boyatzis, & McKee, 2002). EI is being proposed as an important indicator of job satisfaction, job performance, working relationships, and organization- and work-related outcomes (Goleman, 1998; Kafetsios & Zampetakis, 2007; Sy, Tram, & O'Hara, 2006). "Emotional Intelligence is crucial to success in both work and life in general; it is part of

the biological, evolutionary importance of emotions in human beings” (Alon & Higgins, 2005, p. 504).

Goleman (1998) suggests employees are now being measured with a new yardstick and that:

Employees are no longer being judged by how smart they are or by their training expertise, but rather by how well they handle themselves and others. This yardstick is increasingly applied to choosing who will be hired and who will not, who will be let go, and who will be retained, who passed over and who promoted (Goleman, 1998, p.3).

EI is a predictor of success and failure in the workplace (Jacobs, 2004). According to Stein and Book (2006), research across 30 career fields revealed that IQ has been shown to predict an average of 6% of managerial success while Emotional Intelligence accounts for 47% to 56% of work/life success. “Emotional Intelligence refers to a different way of being smart. It doesn’t measure how well you did in school or what your GRE scores were, but rather how well you handle yourself and your relationships” (Goleman, 1998, p. 93).

Emotional Intelligence in the workplace focuses on personal characteristics, such as initiative and empathy, adaptability and persuasiveness (Jacobs, 2004). Research on Emotional Intelligence indicates that employees with high EI are more likely to have higher levels of job satisfaction because they are more adept at appraising and monitoring their own and others’ emotions (Sy, Tram, & O’Hara, 2006). Employees with high EI are more prone to identify feelings of frustration and stress and subsequently regulate those emotions to reduce stress and perform better at work (Kafetsios & Zampetakis, 2007; Sy,

Tram, & O'Hara, 2006). Additionally, employees with high EI are more likely to experience feelings of high job satisfaction because they can utilize their ability to manage and appraise the emotions in others (Sy, Tram, & O'Hara, 2006).

With increased exposure and interest in the business world, the development of EI through training programs has become a goal for many companies. Current emotional training programs are designed to educate employees of the relevance and importance of EI at work, assess their current state of strengths and weaknesses, and provide an outline to develop their abilities to manage their own and others' emotions (Boyatzis, Goleman, & Rhee, 1999).

Emotional Intelligence Training

Understanding the constructs behind how Emotional Intelligence is developed may help researchers identify the important first steps behind developing effective EI training programs and activities (Wong, Foo, Wang, & Wong, 2007). With the widespread intrigue for EI in the workplace (Goleman, 1995), numerous EI development programs have been designed to educate employers and employees about the importance and significance of Emotional Intelligence in the workplace, evaluate their strengths and weakness, and provide an outline to increase and improve an individual's ability to relate and work well with others (Boyatzis, et al., 1999). While there are numerous leadership development programs in existence that focus on enhancing an individual's interpersonal skills, emotional competencies, and general communication capabilities, there are no standard or agreed upon models (Riggio & Lee, 2007).

Relationship between Emotional Intelligence and Leadership

There has been a drastic change in the desired leadership skills sought after for today's business leaders. "Rather than planning, controlling and organizing, which were the skills of the old model of business leaders, the demands of new leaders require skills – such as helping, empowering and listening – which build trust, commitment and dedication" (Yovovich, 1996). The ability to identify high Emotional Intelligence in employees will provide management with a preliminary indication of leadership potential, thus providing insight as to who will be capable of becoming an organizational leader (Goleman, 1995). Organization leaders that demonstrate high EI are able to use their positive frame of mind to envision major company improvements. With increased EI, organizations can expect to see increased employee cooperation, motivation, performance, productivity, and profits (George, 2000). In addition, the presence of EI in a leader significantly affects the organization's environment, while low EI has an impact on an organization's bottom line (Auntry, 1995). Leaders who demonstrate positive leadership behaviors, achieve enhanced employee performance, effort, happiness and organization efficiency (Lowe, Kroek, & Sivasubramaniam, 1996).

Leaders who are involved in the planning of an organization and contribute to the development of an organizational vision are referred to as transformational leaders (Humphrey, 2002). Transformational leaders act as role models to their subordinates, inspire them through their company vision, stimulate them through innovative programming, and show care through having a relationship with each employee (Bass, 1998). Transformational leadership is often emotionally-based and therefore essential in an organization that is in transition or in a complex, competitive environment (Palmer,

Walls, Burgess, & Stough, 2001). Transformational leaders need strong self management in order to maintain composure and lead others under difficult circumstances. In addition, they must show empathy towards their subordinates and coworkers in order to be effective in two-way communication, delegation of responsibilities, addressing individual differences, and interpreting what others are saying while identifying the emotion behind it (Charbonneau & Nicol, 2002, & Locke, 1991). Transformational leaders must fully engage and connect with their employees, relying heavily on empathy to understand followers' thoughts, feelings, and points of view (Lowe, et. al., 1996).

Assessment of Emotional Intelligence

As research on EI continues, additional information becomes available regarding the impact and benefit EI can bring to organizations. The need for an instrument that can reliably measure and assess EI has become evident. Current EI instruments that claim to evaluate an individual's EI reveal some commonality regarding the measurable components that form the basis of the tests (Wakeman, 2006).

The Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT) is a performance measure of EI that addresses how well a person solves emotion-related problems (Salovey, Brackett, Rivers, and Lerner, 2006). The MSCEIT is designed to assess four dimensions of Emotional Intelligence: (1) perception, appraisal, and expression of emotion; (2) emotional facilitation of thinking; (3) understanding and analyzing emotional information; and (4) regulation and management of emotion (McEnrue & Groves, 2006).

The MSCEIT measures "Perceiving Emotions" by asking subjects to identify and rate the emotions expressed in a photograph of a persons face, as well as feelings that are

portrayed in landscapes (Salovey et al. 2006). The “Use of Emotion to Facilitate Thought” is measured by vignettes in which subjects rate different emotions according to how useful they would be in certain situations and identify how much certain emotions are related to other sensations like colors and temperature (Chang, 2006). “Understanding Emotions” is measured by the subject’s ability to analyze blended or complex emotions as well as understand how reactions to emotional situations can evolve over time. “Managing Emotions” is measured by investigating a person’s ability to manage their own emotions and the emotions of others (Salovey et al. 2006). The MSCEIT is also able to diagnose the developmental needs of employees before embarking on organizational development (McEnrue & Groves, 2006).

The MSCEIT is scored with consensus and expert scoring methods, which converge ($r > .90$; Mayer et al. 2003). With consensus scoring, respondents are given credit for correct answers, to the extent that their answers match those of the normative sample. Scoring is based upon what emotions experts believe the correct answers should be (Salovey et al. 2006). The test publisher provides five total scores to the researcher, one for each domain, as well as a total EI score.

The Bar-On Emotional Quotient Inventory (EQ-i) was created by Reuven Bar-On, a clinical psychologist who wanted to identify the basic factors that contribute to successful social functioning and positive emotional health (McEnrue & Groves, 2006). The content of the items on the EQ-i mirror the noncognitive intelligence concepts of EI that Bar-On suggests.

The EQ-i is a 133-item self-report inventory, designed to measure the five elements of EI: Intrapersonal, Interpersonal, Adaptability, Stress Management, and

General Mood (Bar-On, 1997). The Emotional Quotient Inventory consists of 15 sub-scales pertaining to the 15 components of the model, which provide 15 sub-scales scores, five EQ composite scale scores, and a total EQ score (Palmer, Manocha, Gignac, & Stough, 2003). “The items are declarative statements phrased in the first person singular. Respondents are asked to indicate the degree to which the statement accurately describes them on a 5 – point scale (1 = not true of me, 5 = true of me)”. Items are added together to yield a total score, which reflects overall EI (Dawda & Hart, 2000). The Emotional Quotient Inventory has been translated into 22 languages, tested on over 85,000 individuals, and normative data has been collected in over 15 countries (Bar-On, 2000).

In 2002, Bar-On created the EQ-i:S, a short version of the original 133-item, EQ-i. (Bar-On, 2002). The short form contains 51 questions and measures the same components as its predecessor (Grubb & McDaniel, 2007). The short scale has been identified as a satisfactory substitute for the EQ-i when time constraints are a factor (Austin, Saklofske, Huang, & McKenney, 2004).

In addition to the MSCEIT and EQ-i, there is an additional test designed to measure EI. The Emotional Competence Inventory (ECI) is based on Daniel Goleman’s theory of EI. The ECI is consists of four main clusters of competencies: self awareness, self-management, social awareness, and social skills (Wakeman, 2006). Comparison between Goleman’s ECI and Bar-On’s EQ-i, show that there is overlap between the two (Wakeman, 2006).

Summary

With the widespread attention that Emotional Intelligence has received in the past decade, more and more emphasis has been placed on the benefits that EI can bring to an

individual in the workplace, in a leadership role, and in their everyday life. While theories of EI are still evolving, three main theories have emerged: the four-branch model created by Mayer, Caruso & Salovey (2000); the Bar-On (2000) model of emotional and social intelligence that frames EI as an individual's characteristics that enable them to adapt emotionally and socially to everyday events; and the Goleman, Boyatzis, and McKee (2000) theory of emotional competence that frames EI as a group of abilities and skills that are predictors of life and career success.

EI as an emerging tool to predict life and career success has changed the way corporate America looks at potential employees. As an identified indicator of job satisfaction, job performance, working relationships, and organization- and work-related outcomes (Goleman, 1995) companies are utilizing EI as a resource for hiring new employees. Corporations are now focused on hiring employees with future leadership potential. Skills sets such as planning, organizing, and strategizing are taking a backseat to empowering, leading, and listening (Yovovich, 1996).

As research on the effects of EI in the workplace and in relation to leadership potential grows, valid and reliable instruments that can measure EI were developed. The MESCEIT, EQ-I, and ECI are all valid tools that can be used to measure different aspects and components of EI. The findings from these instruments can be used by employees, employers, and human resource departments to develop training and educational programs for individuals looking to increase their EI.

Chapter 3 Methodology

Introduction

The purpose of this study was to examine the development of Emotional Intelligence characteristics in ASI Student Managers during fall quarter 2008. This chapter describes the instrument selection, the design and refinement of the instrument, sampling, procedures, data collection and data analysis and concludes with a summary of the methodology used.

Instrument Selection

The Bar-On Emotional Quotient Inventory (EQ-i) was used to assess student leaders' Emotional Intelligence (EI) development. The Bar-On EQ-i has been used to assess EI in a variety of professional situations including university, clinical, and business settings (Bar-On, 1997). The instrument has been used to assess over 100,000 individuals worldwide, and the North American sample provides diversity in age and socioeconomic, educational, and occupational status (Bar-On, 1997). The instrument has proven helpful in corporate settings where it is used for the recruitment and assessment of new employees and the evaluation of current staff, as well as a tool to investigate the effectiveness of organizational change and restructuring (Bar-On, 1997).

Psychometric analysis of the EQ-i reported a high degree of reliability, and test-retest reliability with Cronbach alpha coefficients ranging from 0.66 to 0.73 (Bar-On, 1997). Based on seven population samples, the 15 sub-scales are reported to have average to high internal consistency coefficients with Cronbach's alpha coefficients ranging from 0.69 (Social Responsibility) to 0.86 (Self Regard) (Bar-On, 1997). The overall average internal consistency coefficient of the EQ-i was 0.76. These findings support the EQ-i as

a reliable instrument, while suggesting that the instrument is sensitive to fluctuations in social and emotional functioning (Bar-On, 1997).

Instrument Design

The EQ-i consists of 133 items and takes approximately 30 minutes to complete. The EQ-i includes five composite scales: Intrapersonal, Interpersonal, Adaptability, Stress Management, and General Mood. Each scale encompasses an additional two to five subscales (see Table 2). Each subscale utilizes six to nine items where respondents rate themselves on a five point Likert scale ranging from 1 “very seldom or not true of me” to 5 “very often true of me or true of me” (Bar-On, 1997).

Scores are generated online by Multi Health Systems (www.mhs.com/mhs/), the publisher of the EQ-i test. Raw scores are automatically converted into standard scores based on a mean of 100 and a standard deviation of 15, similar to standard Intelligence Quotient (IQ) scores. The EQ-i includes four additional items that are used to measure response bias. This built-in correction factor is used to identify if respondents are answering honestly and if the results from the previous five scales are correct reflections of their actual EI (Bar-On, 1997). The correction tool automatically adjusts the scale scores based on the scores obtained from the instrument’s two validity indices: positive impression and negative impression (Bar-On, 1997). This feature helps to reduce the potentially distorting effects of response bias.

Table 2. EQ-i scales, subscales and items breakdown (Bar-On, 1997).

Scale	Subscales	Items
Intrapersonal	Emotional Self-Awareness Assertiveness Self-Regard Self-Actualization Independence	This scale consists of 40 items and asks participants to evaluate their ability to identify and understand feelings.
Interpersonal	Interpersonal Relationship Social Responsibility Empathy	This scale consists of 28 items and asks participants to identify their feelings towards others and whether or not they understand others' emotions.
Adaptability	Problem Solving Reality Testing Flexibility	This scale consists of 26 items and asks participants to measure their ability to handle challenges and problems in their own life.
Stress Management	Stress Tolerance Impulse Control	This scale consists of 18 items and asks participants to identify their ability to handle stressful situations without being overly nervous or anxious and how they handle problems that personally upset them.
General Mood	Happiness Optimism	This scale consists of 17 items and asks participants to identify their level of satisfaction with their life and if they live day-to-day with a positive attitude.

Description of Subjects

The EQ-i was administered to the entire membership (n=14) of the 2008-09 ASI Student Manager Team. These students were both male and female with ages ranging from 20 – 23. Student Managers are in their second to fifth year in school and are from a broad range of academic majors including engineering, liberal arts, and business. As members of the Student Manager Team, students are mentored as para-professionals by being given fiscal and supervisory responsibility for a given program area within ASI.

A non-equivalent control group of 14 self-selected ASI Student Government members was also tested as part of this study. The entire population of Student Government members was emailed and invited to take part in the study. The first 14 students to respond were emailed an informed consent letter and instructions on how to complete the questionnaire. These participants of the study were both male and female with ages ranging from 19 – 24. These students represent all three branches of Student Government: Executive Cabinet, Board of Directors, and University Union Advisory Board. No incentives were provided to any of the participants.

Treatment

After the initial EQ-i testing, all Student Managers and their supervisors met with the researcher to discuss the findings. At that time, a copy of the EQ-i Resource Report was provided to the Supervisor for their records. In addition, the researcher reviewed each scale and subscale to inform the subjects of their initial scores. The researcher also reviewed the strategies for development and provided the supervisor with a suggested schedule for training and developing the Student Managers Emotional Intelligence. Throughout the duration of the quarter, the researcher was available to all Student Managers and supervisors for consultation.

Data Collection

Following human subjects committee approval, the EQ-i was administered to the 2008-09 ASI Student Manager Team during mandatory employee training on September 4, 2008. The online questionnaire was administered after the researcher made some brief comments to inform subjects of the purpose of the study and to review their rights regarding participation. Administration of the questionnaire was conducted after

introductions were made but prior to any formal training. Subjects were given 30 minutes at a personal computer to complete the questionnaire. Subjects were asked to provide their names on the questionnaire so results could be tracked by the researcher.

Student Government members were administered the same EQ-i test on September 5, 2008. Student Government members were emailed the informed consent letter and directions on how to complete the online questionnaire remotely. The researcher was notified by MHS when each EQ-i test was completed.

Participants of the study were asked to complete the EQ-i again at the end of a 10-week period. All subjects were contacted by the researcher and provided with instructions and a deadline for test completion. All subjects were given three days to complete the EQ-i. One reminder email was sent to the entire group after two days. An additional follow up email was sent to two students that had not completed the post assessment on the third day. Those students then completed the EQ-i on the fourth day.

Data Analysis

Data were tabulated online by Multi Health Systems (MHS) and downloaded by the researcher into a Microsoft Excel spreadsheet. The researcher downloaded Individual Summary Reports, or spreadsheets of raw data scores that were converted into standard, normed scores for each of the five scales, 15 subscales, and an overall EI score.

Data were transferred to Minitab 15.1.20.0 for analysis. All procedures utilized a level of significance of 0.05. A two sample t test was used to identify the statistical difference in the 13 subscales between the two groups.

Summary

The EQ-i was used to determine the EI levels of ASI Student Managers and ASI Student Government members. The EQ-i has been established as a valid tool to measure EI and determine developmental needs of students. The sample was the entire population of the Student Manager Team of 14 members and 14 self-selected ASI Student Government members. The EQ-i was administered prior to their first day of training in fall quarter and again during the last week of the quarter.

Chapter 4 Results

Participant Characteristics

A total of 27 ASI Student Manager and Student Government members provided responses that were used to analyze the influence of involvement in the ASI Student Manager program on Emotional Intelligence. Participant characteristics are highlighted in tables 1 through 12 and include findings according to the EQ-i five composite scales: Intrapersonal, Interpersonal, Adaptability, Stress Management, and General Mood and Total Emotional Intelligence.

Gender

Of the 27 respondents, 14 were Student Managers and 13 were Student Government members. In total 15 (56%) were female and 12 (44%) were male (see Table 3).

Table 3. Respondents by Gender, According to Frequency and Percentage (n=27).

	f	%
Student Manager		
Male	6	22.2%
Female	8	29.6%
Student Government		
Male	6	22.2%
Female	7	25.9%

Age

Respondents ranged from 19-24 years of age. Most respondents were 21 years old (see Table 4).

Table 4. Respondents by Age, According to Frequency and Percentage (n=27).

	f	%
Student Manager		
19	1	3.7%
20	1	3.7%
21	8	29.6%
22	2	7.4%
23	2	7.4%
Student Government		
20	1	3.7%
21	7	25.9%
22	2	7.4%
23	2	7.4%
24	1	3.7%

EQ-i Findings

A total of 27 ASI Student Manager and Student Government members provided responses for both the pre- and post-test EQ-i that were used to analyze the influence of involvement in the ASI Student Manager program on Emotional Intelligence (see Table 6). Emotional Intelligence suggests non-cognitive capabilities and competencies influence a person's ability to cope with everyday demands and pressures (Bar-On, 2000).

EQ-I raw scores are automatically converted into standard scores based on a mean of 100 and a standard deviation of 15, similar to standard Intelligence Quotient (IQ) scores. Scores above 109 indicate highly emotionally intelligent people and lower scores (under 80) signify a need to develop or improve emotional skills in specified areas (see Table 5).

Table 5. Interpretation of Guidelines for Bar-On EQ-I Scale Scores.

Standard Score	Interpretive Guidelines
130+	Markedly High: atypically well developed emotional capacity
120-129	Very High: extremely well developed emotional capacity
110-119	High: well developed emotional capacity
90-109	Average: adequate emotional capacity
80-89	Low: under developed emotional capacity, requiring improvement
70-79	Very Low: extremely under developed emotional capacity
Under 70	Markedly Low: atypically impaired emotional capacity

(Bar-On, 1997)

Training Subscale Scores

The pre-test subscale scores for Student Managers ranged from 92.71 (Emotional Self Awareness) to 106.00 (Impulse Control). Post-test scores ranged from 94.93 (Self Regard) to 104.43 (Stress Tolerance) (see Table 6). The mean changes in Student Manager subscale scores ranged from - 3.43 (Impulse Control) to 3.50 (Flexibility). When looking at both individual paired t-test scores as well as pre and post scores for the entire group of Student Managers, no differences were found to be statistically significant.

Table 6. Total EQ, Scales and Subscales Pre- and Post - Test Scores for Student Managers.

	Pre-Test		Post-Test		Mean Change
	Mean	Std. Dev.	Mean	Std. Dev.	
Total EQ	99.21	11.53	99.29	11.41	.07
Intrapersonal	96.00	16.51	97.14	14.77	1.14
Self Regard	95.93	16.66	94.93	14.49	(1.00)
Emotional Self Awareness	92.71	14.37	95.14	13.00	2.43
Assertiveness	98.50	13.27	101.71	13.32	3.21
Independence	97.43	12.02	98.21	12.94	0.79
Self Actualization	101.00	14.56	100.79	12.442	(0.21)
Interpersonal	98.43	11.06	96.71	11.41	(1.71)
Empathy	99.64	12.42	96.85	11.73	(2.79)
Social Responsibility	97.50	10.72	96.86	11.73	(0.64)
Interpersonal Relationships	99.00	10.06	98.21	12.03	(0.79)
Stress Management	104.71	8.61	104.14	9.47	(0.57)
Stress Tolerance	102.07	9.93	104.43	13.05	2.36
Impulse Control	106.00	6.40	102.57	6.84	(3.43)
Adaptability	99.79	12.17	102.07	11.32	2.29
Reality Testing	99.50	11.56	100.29	11.32	0.79
Flexibility	98.29	12.85	101.79	12.04	3.50
Problem Solving	102.00	13.71	103.43	12.38	1.43
General Mood	101.86	10.46	99.64	10.52	(2.21)
Optimism	100.43	9.73	101.23	11.59	(2.21)
Happiness	103.14	10.95	101.71	12.05	(1.43)

The pre-test scores for Student Government ranged from 92.07 (Reality Testing) to 107.39 (Happiness). Post-test scores ranged from 93.85 (Reality Testing) to 110.00 (Happiness). The mean changes in Student Government subscale scores ranged from -3.00 (Interpersonal Relationships) to 3.23 (Emotional Self Awareness and Empathy) (see Table 7). When looking at both individual paired t-test scores as well as pre and post scores for the entire group of Student Government members, no differences were found to be statistically significant.

Table 7. Total EQ, Subscales Pre- and Post - Test Scores for Student Government.

	Pre-Test		Post-Test		Mean Change
	Mean	Std. Dev.	Mean	Std. Dev.	
Total EQ	101.07	10.53	101.15	11.25	.08
Intrapersonal	103.54	12.90	103.08	14.29	(.46)
Self Regard	105.69	14.32	104.38	14.68	(1.31)
Emotional Self Awareness	98.85	11.87	102.08	14.95	3.23
Assertiveness	103.61	13.01	101.23	13.19	(2.39)
Independence	101.62	12.84	99.23	14.36	(2.38)
Self Actualization	107.00	13.56	107.31	10.94	.31
Interpersonal	104.23	11.58	104.39	11.94	.15
Empathy	101.69	9.31	104.92	10.79	3.23
Social Responsibility	100.31	11.17	101.69	10.18	1.39
Interpersonal Relationships	108.39	12.51	105.38	12.89	(3.00)
Stress Management	101.08	9.87	100.54	7.03	(.54)
Stress Tolerance	102.46	13.37	102.08	9.53	(.39)
Impulse Control	98.08	10.30	97.62	6.36	(.46)
Adaptability	95.00	11.42	96.15	10.92	1.51
Reality Testing	92.07	10.08	93.85	12.27	1.77
Flexibility	100.00	9.92	98.69	9.62	(1.31)
Problem Solving	96.62	11.80	98.38	8.95	1.77
General Mood	106.23	9.47	106.69	11.83	.46
Optimism	103.46	9.35	101.69	12.37	(1.77)
Happiness	107.39	10.55	110.00	10.97	2.61

Training Effect on Subscale Scores

Training effect quantifies the difference between sub scale score changes of Student Managers when compared to Student Government. The variation in training effect scores ranged from -6.02 (Empathy) to 5.60 (Assertiveness) with an average training effect of (0.06). Assertiveness and Happiness showed to have significant training effects on respondent's scores (see Table 8). There were no other significant differences in training effect scores.

Table 8. Subscale Training Effect Scores for Student Managers and Student Government.

	Student Managers			Student Government			Training Effect	P-Value
	Pre-Test	Post-Test	Diff.	Pre-Test	Post-Test	Diff.		
Total EQ	99.21	99.29	0.07	101.08	101.15	0.08	(0.01)	0.499
Intrapersonal	96.00	97.14	1.14	103.54	103.08	(0.46)	1.60	0.284
Self Regard	95.93	94.93	(1.00)	105.69	104.38	(1.31)	0.31	0.456
Emotional Self Awareness	92.71	95.14	2.43	98.85	102.08	3.23	(0.80)	0.416
Assertiveness	98.50	101.71	3.21	103.62	101.23	(2.38)	5.60	0.047
Independence	97.43	98.21	0.79	101.62	99.23	(2.38)	3.17	0.180
Self Actualization	101.00	100.79	(0.21)	107.00	107.31	0.31	(0.52)	0.438
Interpersonal	98.43	96.71	(1.71)	104.23	104.38	0.15	(1.87)	0.260
Empathy	99.64	96.86	(2.79)	101.69	104.92	3.23	(6.02)	0.030
Social Responsibility	97.50	96.86	(0.64)	100.31	101.69	1.38	(2.03)	0.267
Interpersonal Relationships	99.00	98.21	(0.79)	108.38	105.38	(3.00)	2.21	0.227
Stress Management	104.71	104.14	(0.57)	101.08	100.54	(0.54)	(0.03)	0.494
Stress Tolerance	102.07	104.43	2.36	102.46	102.08	(0.38)	2.74	0.197
Impulse Control	106.00	102.57	(3.43)	98.08	97.62	(0.46)	(2.97)	0.181
Adaptability	99.79	102.07	2.29	95.00	96.15	1.15	1.13	0.310
Reality Testing	99.50	100.29	0.79	92.08	93.85	1.77	(0.98)	0.365
Flexibility	98.29	101.79	3.50	100.00	98.69	(1.31)	4.81	0.074
Problem Solving	102.00	103.43	1.43	96.62	98.38	1.77	(0.34)	0.446
General Mood	101.86	99.64	(2.21)	106.23	106.69	0.46	(2.68)	0.128
Optimism	100.43	98.21	(2.21)	103.46	101.69	(1.77)	(0.45)	0.451
Happiness	103.14	101.71	(1.43)	107.38	110.00	2.62	(4.04)	0.027

Training Effect on Individual Respondents

The training effect on individual Student Managers quantifies the difference between Total EQ, scale and subscale scores between each respondent that received training. The variation in training effect scores ranged from -22 (Optimism) for Respondent 1 to 26 (Self Actualization) for Respondent 2 (see Tables 9-14).

Table 9: Training Effect for Total EQ, Intrapersonal and Self Regard scales of Individual Respondents.

Respondent	Total EQ			Intrapersonal			Self Regard		
	Before	After	Diff.	Before	After	Diff.	Before	After	Diff.
Respondent 1	99	92	-7	91	86	-5	84	81	-3
Respondent 2	78	93	15	69	88	19	72	80	8
Respondent 3	82	83	1	57	67	10	60	67	7
Respondent 4	102	103	1	100	104	4	99	101	2
Respondent 5	92	93	1	98	93	-5	106	97	-9
Respondent 6	99	98	-1	101	100	-1	103	100	-3
Respondent 7	97	103	6	100	101	1	98	97	-1
Respondent 8	95	90	-5	96	92	-4	103	93	-10
Respondent 9	113	119	6	115	118	3	119	117	-2
Respondent 10	110	109	-1	105	111	6	98	106	8
Respondent 11	117	118	1	117	120	3	110	112	2
Respondent 12	89	82	-7	84	77	-7	79	76	-3
Respondent 13	111	106	-5	105	99	-6	97	93	-4
Respondent 14	105	101	-4	106	104	-2	115	109	-6

Table 10: Emotional Self Awareness, Assertiveness and Independence scales of Individual Respondents.

Respondent	Emotional Self Awareness			Assertiveness			Independence		
	Before	After	Diff.	Before	After	Diff.	Before	After	Diff.
Respondent 1	92	93	1	88	88	0	95	82	-13
Respondent 2	74	78	4	81	101	20	79	95	16
Respondent 3	57	70	13	68	75	7	75	85	10
Respondent 4	86	107	21	110	107	-3	102	99	-3
Respondent 5	97	96	-1	97	97	0	92	89	-3
Respondent 6	101	104	3	97	104	7	89	89	0
Respondent 7	92	84	-8	104	107	3	102	109	7
Respondent 8	93	99	6	94	94	0	89	82	-7
Respondent 9	102	100	-2	104	113	9	115	119	4
Respondent 10	103	107	4	101	104	3	102	115	13
Respondent 11	112	115	3	117	123	6	112	119	7
Respondent 12	89	80	-9	97	84	-13	95	95	0
Respondent 13	111	106	-5	117	120	3	112	95	-17
Respondent 14	89	93	4	104	107	3	105	102	-3

Table 11: Self Actualization, Interpersonal and Empathy scales of Individual Respondents.

Respondent	Self Actualization			Interpersonal			Empathy		
	Before	After	Diff.	Before	After	Diff.	Before	After	Diff.
Respondent 1	113	106	-7	114	111	-3	116	109	-7
Respondent 2	82	108	26	94	106	12	87	95	8
Respondent 3	70	77	7	99	91	-8	105	98	-7
Respondent 4	107	105	-2	97	100	3	98	105	7
Respondent 5	97	90	-7	79	86	7	80	84	4
Respondent 6	112	100	-12	105	100	-5	109	95	-14
Respondent 7	103	108	5	86	94	8	91	98	7
Respondent 8	101	95	-6	91	84	-7	91	80	-11
Respondent 9	116	120	4	115	115	0	109	112	3
Respondent 10	114	113	-1	111	106	-5	120	116	-4
Respondent 11	115	112	-3	106	107	1	98	98	0
Respondent 12	82	80	-2	87	81	-6	95	87	-8
Respondent 13	92	93	1	103	93	-10	112	102	-10
Respondent 14	110	104	-6	91	80	-11	84	77	-7

Table 12: Social Responsibility, Interpersonal Relationship and Stress Management scales of Individual Respondents.

Respondent	Social Responsibility			Interpersonal Relationship			Stress Management		
	Before	After	Diff.	Before	After	Diff.	Before	After	Diff.
Respondent 1	107	109	2	112	111	-1	99	89	-10
Respondent 2	97	95	-2	99	111	12	105	108	3
Respondent 3	98	98	0	98	89	-9	112	103	-9
Respondent 4	94	105	11	100	103	3	105	103	-2
Respondent 5	80	84	4	84	90	6	103	100	-3
Respondent 6	101	95	-6	105	106	1	91	96	5
Respondent 7	86	98	12	86	88	2	108	111	3
Respondent 8	96	80	-16	90	82	-8	93	87	-6
Respondent 9	115	112	-3	115	112	-3	93	108	15
Respondent 10	115	116	1	102	109	7	106	106	0
Respondent 11	99	98	-1	109	113	4	118	118	0
Respondent 12	93	87	-6	83	82	-1	105	104	-1
Respondent 13	103	102	-1	101	92	-9	119	121	2
Respondent 14	81	77	-4	102	87	-15	109	104	-5

Table 13: Stress Tolerance, Impulse Control and Adaptability scales of Individual Respondents.

Respondent	Stress Tolerance			Impulse Control			Adaptability		
	Before	After	Diff.	Before	After	Diff.	Before	After	Diff.
Respondent 1	94	90	-4	103	90	-13	93	91	-2
Respondent 2	108	118	10	97	95	-2	80	90	10
Respondent 3	105	104	-1	115	101	-14	86	87	1
Respondent 4	106	106	0	102	98	-4	108	107	-1
Respondent 5	98	96	-2	108	104	-4	86	94	8
Respondent 6	83	87	4	102	108	6	94	95	1
Respondent 7	110	116	6	105	104	-1	92	104	12
Respondent 8	94	79	-15	96	101	5	102	106	4
Respondent 9	88	108	20	101	106	5	110	118	8
Respondent 10	105	113	8	106	96	-10	109	103	-6
Respondent 11	116	120	4	116	111	-5	119	121	2
Respondent 12	99	96	-3	109	110	1	94	89	-5
Respondent 13	117	120	3	115	114	-1	117	116	-1
Respondent 14	106	109	3	109	98	-11	107	108	1

Table 14: Reality Testing, Flexibility and Problem Solving scales of Individual Respondents.

Respondent	Reality Testing			Flexibility			Problem Solving		
	Before	After	Diff.	Before	After	Diff.	Before	After	Diff.
Respondent 1	81	88	7	103	92	-11	101	99	-2
Respondent 2	82	91	9	86	97	11	83	87	4
Respondent 3	92	88	-4	93	94	1	80	85	5
Respondent 4	104	98	-6	106	107	1	110	115	5
Respondent 5	95	99	4	91	102	11	78	83	5
Respondent 6	102	106	4	82	85	3	99	95	-4
Respondent 7	103	111	8	82	94	12	95	104	9
Respondent 8	97	100	3	104	98	-6	105	118	13
Respondent 9	118	124	6	86	109	23	119	110	-9
Respondent 10	114	103	-11	96	98	2	113	106	-7
Respondent 11	114	118	4	116	119	3	118	115	-3
Respondent 12	86	86	0	97	88	-9	104	101	-3
Respondent 13	104	96	-8	124	125	1	116	121	5
Respondent 14	101	96	-5	110	117	7	107	109	2

Table 15: General Mood, Optimism and Happiness scales of Individual Respondents.

Respondent	General Mood			Optimism			Happiness		
	Before	After	Diff.	Before	After	Diff.	Before	After	Diff.
Respondent 1	111	102	-9	111	89	-22	109	113	4
Respondent 2	82	89	7	81	81	0	85	97	12
Respondent 3	97	94	-3	95	93	-2	100	96	-4
Respondent 4	102	103	1	97	95	-2	105	110	5
Respondent 5	96	96	0	93	91	-2	100	102	2
Respondent 6	102	96	-6	96	93	-3	109	100	-9
Respondent 7	103	100	-3	99	103	4	106	100	-6
Respondent 8	92	82	-10	97	90	-7	90	78	-12
Respondent 9	122	120	-2	121	118	-3	119	119	0
Respondent 10	113	113	0	112	112	0	113	114	1
Respondent 11	107	107	0	100	107	7	112	107	-5
Respondent 12	88	84	-4	100	94	-6	81	79	-2
Respondent 13	108	105	-3	107	112	5	108	99	-9
Respondent 14	103	104	1	97	97	0	107	110	3

Respondent Feedback

After completion of the study, the researcher distributed a follow-up survey via e-mail to all Student Managers who received training. Of the 14 Student Managers who participated in the study, 11 responded to the follow-up survey. The survey included four questions: two open-ended questions, one Likert-type question that asked respondents to consider the effectiveness of the training on helping them identify areas for improvement, and one closed-ended question that asked respondents to identify the three subscales of Emotional Intelligence that were most applicable to their role as a Student Manager.

Question #1 on the Emotional Intelligence Follow-Up Survey asked respondents to rate on a scale of 1 to 5 (1 being the least, 5 being the greatest) how helpful the Emotional Intelligence training was in helping them identify their areas for improvement (see Table 16).

Table 16. Respondent Feedback to Follow-Up Survey Question #1 (n=11).

	f	%
1	0	0%
2	0	0%
3	1	9%
3.5	1	9%
4	8	73%
5	1	9%

Question #2 on the Emotional Intelligence Follow-Up Survey was an open ended question and asked respondents if they thought the Emotional Intelligence training was a valuable tool and if it should be continued as part of the training next year. All eleven subjects responded yes. In addition, suggestions for a mid-quarter touch base meeting and set schedules for training objectives were made.

Question #3 on the Emotional Intelligence Follow-Up Survey was an open ended question and asked respondents if they had any recommendations for future use of this tool as part of the training practice of Student Managers. Recommendations included providing additional training materials to subjects, more frequent follow-up, extending the study to an entire academic year, and explaining the benefits of Emotional Intelligence in greater detail prior to training.

Question #4 on the Emotional Intelligence Follow-Up Survey asked respondents to identify the three subscales within the EQ-i that they felt were most applicable to their role as a Student Manager. Twelve subscales were identified by the respondents (see Table 17).

Table 17. Subscales Most Applicable to Student Manager Role, According to Frequency and Percentage (n=21).

	f	%
Stress Tolerance	7	21.2%
Flexibility	4	12.1%
Interpersonal Relationship	4	12.1%
Emotional Self Awareness	3	9.1%
Problem Solving	3	9.1%
Self Actualization	3	9.1%
Adaptability	2	6.1%
Assertiveness	2	6.1%
Empathy	2	6.1%
Impulse Control	1	3.3%
Self Regard	1	3.3%
Social Responsibility	1	3.3%

Chapter 5 Discussion

Introduction

The entire population of 14 ASI Student Managers, and a sample of 13 Student Government members provided responses that were used to compare their Emotional Intelligence development over the course of one academic quarter. This chapter will summarize and discuss the significant findings of the study, as well as identify the implications of this research.

Summary of the Purpose

The purpose of this study was to examine the development of Emotional Intelligence characteristics in ASI Student Managers and Student Government members during fall quarter 2008. This was an exploratory study to identify differences in Emotional Intelligence between two types of student leaders.

Summary of the Procedures

The Bar-On Emotional Quotient Inventory (EQ-i) was used to assess student leaders' Emotional Intelligence (EI) development. The Bar-On EQ-i has been used to assess EI in a variety of professional settings including university, clinical, and business environments (Bar-On, 1997). The EQ-i includes five composite scales: Intrapersonal, Interpersonal, Adaptability, Stress Management, and General Mood. The instrument has proven helpful in corporate settings where it is used for the recruitment of new employees and the evaluation of current staff, as well as a tool to investigate the effectiveness of organizational change and restructuring (Bar-On, 1997).

The EQ-i was administered to the entire membership (n=14) of the 2008-09 ASI Student Manager Team. A non-equivalent control group of 13 self-selected ASI Student

Government members were also tested as a part of this study. Following human subjects committee approval, the EQ-i was administered to the Student Managers during mandatory employee training on September 4, 2008. Student Government members were administered the same EQ-i test on September 5, 2008. Participants of the study were asked to complete the EQ-i again at the end of the 10-week academic quarter.

Summary of Data Analysis

Data were tabulated online using Multi Health Systems (MHS) and downloaded by the researcher into a Microsoft Excel spreadsheet. The researcher downloaded Individual Summary Reports, or spreadsheets of raw data scores that were converted into standard, normed scores for each of the five scales, 15 subscales, and an overall EI score. Data were transferred to Minitab 15.1.20.0 for analysis. All procedures utilized a level of significance of 0.05. A two sample t-test was used to identify the statistical difference in the 13 subscales between the two groups.

Summary of Significant Findings

The sample was reflective of the population of interest. The results of the study indicate that Assertiveness and Happiness had significant positive training effects on the respondent's scores. Results also indicate that there was a significant negative effect on respondents Empathy scores. Due to the small sample size (n=27) the study was unable to identify additional factors such as age or gender that may have influenced the results.

Research Questions

This study answered the following research questions.

Question 1: How do Student Manager Team members measure on Emotional Intelligence?

The EQ-i results for Student Managers revealed that for the pre-test, subscale scores ranged from 92.71 to 106.00 and post-test scores ranged from 94.93 to 104.43 both of which are in the average range of 90-109. In general Student Managers have an adequate emotional capacity.

Question 2: How do ASI Student Government members measure on Emotional Intelligence?

The EQ-i results for Student Government revealed that for the pre-test, subscale scores ranged from 92.07 to 107.39 and post-test scores ranged from 93.85 to 110.00. Meaning that the Student Government subjects range from average to high emotional capacity.

Question 3: Are there significant differences in Emotional Intelligence scores between the two groups?

The EQ-i data revealed that there were significant differences in two out of the 15 subscales of Emotional Intelligence. The increase in assertiveness while the decrease in happiness were both significant.

Question 4: Does training influence Emotional Intelligence scores?

The EQ-i results for individuals that received training (Student Managers) indicate that the Emotional Intelligence training did influence scores. Total average Emotional Intelligence scores increased by .07, 24 (11%) of the subscale scores increased by 10 or more points, and 23 (10%) of the subscale scores decreased by 10 or more points.

Comparing the Findings with Published Literature

Currently there is little literature to be found on the specific topic of Emotional Intelligence development in student leaders. In addition, the limited number of subjects involved in this study restricts the ability to generalize significant findings. However, the findings of this study are consistent with published Emotional Intelligence literature.

Much of the Emotional Intelligence literature focuses on the idea that emotional and social intelligence influences a person's ability to manage everyday demands and pressures. In addition, it describes Emotional Intelligence as a cluster of abilities and skills that act as predictors of life and career success.

In this study, the findings concentrated on the development and enhancement of Emotional Intelligence through the Student Manager experience. The research conducted in this study utilized Emotional Intelligence as the dependent variable. The focus of this study was not on the Emotional Intelligence scores themselves, but rather on how Emotional Intelligence may change due to the Student Manager experience.

This study supports published literature that there are benefits from Emotional Intelligence training. While no formal training programs exist for student leaders, the goals of this study were to educate Student Managers about the significance and meaning of Emotional Intelligence, alert them to the value it can bring to the workplace, evaluate their individual strengths and weaknesses, and provide an opportunity to enhance their ability to work effectively with others. Findings indicate that the training Student Managers experienced had an impact on their Emotional Intelligence and subsequently produced a more effective employee.

Implications

The findings of this study will be used by the staff of ASI to restructure the Student Manager Team to better address the training of Emotional Intelligence. In particular, the results will assist with identifying the areas within the students Emotional Intelligence that require additional attention and training. Specific training programs can be implemented for students in leadership roles that may result in additional positive changes than even those found in this study. Online training courses, or training courses for supervisors of Student Managers may assist in the delivery of Emotional Intelligence training materials.

The findings of this study can also be used to attract future Student Managers. The Human Resources department can utilize their marketing strategies to inform applicants of the specific benefits of Student Manager employment and the valuable skills and competencies that can be developed through this type of position.

Never before has a group of students in this type of role been investigated in terms of Emotional Intelligence training at Cal Poly. The results of this study can serve as the stepping stone into additional research regarding student leaders' Emotional Intelligence development. A better understanding of how student leaders apply their Emotional Intelligence skills would assist Student Affairs professionals in the development and execution of training programs.

Suggestions for Future Research

This study produced numerous suggestions for future research utilizing Emotional Intelligence to investigate the effects of training on student leaders. Many of the suggestions are a result of the limitations of the study.

The first suggestion would be to increase the size of the sample. With only 27 total respondents, it was not possible to detect significant differences due to age, gender or other demographics such as major, year in school and extra curricular activities.

A limitation of the study was the lack of a control group. While the Student Government members acted as a quasi control group, due to their involvement in leadership they were predisposed to higher Emotional Intelligence scores. In future research it is suggested to investigate a minimum of two different leadership groups and include an additional control group of students that are not involved with any type of leadership program.

In addition, future research should have all participants be randomly selected from their population. Due to the limitations of the Student Manager group, all members of the population participated in the study, while the Student Government members were self selected. Randomization of the subjects would decrease the opportunity for subject bias since participants had the choice to participate or not.

An additional suggestion would be to have all subjects who are involved with the training of Emotional Intelligence be trained by the same person, with the same materials. Due to the structure of the Student Manager group, all participants were trained by their individual supervisors which may have skewed the results.

Further research should examine the relationship between Student Managers' Emotional Intelligence scores and their annual evaluation scores. While the two are not directly linked, research indicates that individuals with higher Emotional Intelligence also display higher levels of job satisfaction, job performance, working relationships, and organization- and work-related outcomes.

Due to the time constraints imposed by a 10-week academic quarter, subjects completed their post test the weekend prior to finals week. This could have resulted in increased stress, lack of time or loss of focus during completion of the EQ-i. In future research it is suggested to extend the time period to allow additional time for implementation of Emotional Intelligence training.

Final Thoughts

This research revealed that there is a relationship between involvement in the ASI Student Manager Team and Emotional Intelligence development. While there were few statistically significant findings, due to the exploratory nature of this study significant differences were not anticipated. As research began, the expectations of the study were unknown. Many extraneous factors may have influenced the subjects and therefore predictions for the outcomes were unknown. Throughout the course of the study, Student Manager members endured multiple incidents including three student deaths on campus, a racial tolerance incident and a parental death. While these events were not indicated as an influence by any of the participants, it can be speculated that they may have had an impact on the findings.

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