

The Overlap Between Emotional Intelligence and Post-Industrial Leadership Capacity: A Construct Validity Analysis

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Abstract

A sample of 276 students enrolled in campus leadership programs completed the Emotional Competence Inventory-University Edition (ECI-U) and the Socially Responsible Leadership Scale (SRLS) as a means to determine the relatedness in college students of emotional intelligence (EI) to the practice of post-industrial leadership skills. Confirmatory factor analysis (CFA) supported current use of subscales within the SRLS and showed that EI and post-industrial leadership skills represent distinct, yet related, constructs. Results also suggest the ECI-U may better represent one overall concept of Emotional Competence rather than four distinct areas of EI. Implications and directions for future research are discussed.

Introduction and Background

Researchers have been increasingly interested in investigating the effects of emotional intelligence (EI) on a person's effective leadership practices in fields of business (Carmeli, 2003; Gardner & Stough, 2002; Goleman, 2004; Higgs & Aitken, 2003), governance (Barbuto & Burbach, 2006), the helping professions (Isen, 2001), and student success and development in higher education (Barchard, 2003; Jaeger & Eagan, 2007; Parker, Hogan, Eastabrook, Oke, & Wood, 2006; Pritchard & Wilson, 2003). However, little research has been conducted to detail the direct relationship of EI to the effective practice of leadership skills in college students. As emergent practices of leadership are theorized to require more emphasis on the processes of relationship building and influence rather than overt authority (Komives, 1996) – i.e., what many have come to call *Post-Industrial Leadership* (Faris & Outcalt, 2001; Kezar, Carducci, & Contreras-McGavin, 2006; Rost, 1993) – the possession of emotional intelligence skills has been implicated as useful on an individual basis for the practice of this type of leadership. Moreover, as colleges continue to occupy a prime position in shaping and educating future leaders within society (Dugan & Komives, 2007); a need for better understanding of the interrelationships between emotional intelligence and leadership skills in students has emerged.

This paper proposes to make three contributions to the study of emotional intelligence and student leadership. First, we assess the construct validity of a popular emotional competence measure adapted for university students. Via CFA we show that the self-reported emotional intelligence measure provides adequate empirical fit to student leader data, although a one-factor EI solution seems to fit equivalently to the four-factor EI solution the instrument was designed to assess.

Second, we evaluate the convergent and discriminant validity of the eight sub-factors of a widely used student leadership scale – the Socially Responsible Leadership Scale (SRLS) – to confirm its proposed measurement structure.

Third, we note the conceptual overlap between EI and the student leadership sub-factors, and implement a series of nested measurement models to assess discriminant validity between EI skill and post-industrial leadership skills. Although latent EI-leadership factor correlations are moderate in strength, results suggest these EI and student leadership instruments assess distinct, but conceptually related constructs.

Emotional Intelligence

The idea of social intelligence – the ability to display competence in creating and maintaining relationships – began in the early 1900s (Bar-On, 2006). As a distinct concept, however, emotional intelligence has only been developed and investigated since the early 1990s (Mayer, Caruso, & Salovey, 1999). There has been some disagreement over its definition and boundaries (Matthews, Roberts, & Zeidner, 2004) and whether it is a set of personality traits related to emotional competencies (Petrides & Furnham, 2001), a set of ability related skills that can be developed over time (Mayer, et al., 1999), or an integration of both (Mayer, Salovey, & Caruso, 2004). It has been suggested as ability based in that it carries out accurate reasoning about emotions and how to use emotions as well as emotional knowledge to enhance thought. Goleman (2004) describes emotional intelligence as trait based. He suggests EI is a set of competencies related to recognizing one's emotional state, regulating it, keeping oneself motivated, and displaying empathy and social skill. While the two definitions are largely overlapping and focus on the centrality of recognizing and regulating emotions, instruments derived under these two perspectives on what emotional intelligence is are only modestly correlated, and display very different patterns of associations with personality traits, IQ, and work place performance (Joseph & Newman, 2010a). In order to address the relationship between student leadership and EI, the research described herein uses a trait-based concept of EI that includes a significant degree of skill in self-awareness and social interaction, both of which may be significant to the practice of post-industrial leadership. This specific notion of EI which some authors prefer to label *emotional competence* rather than *emotional intelligence* (see Cherniss, 2010; Newman, Joseph, & MacCann, 2010) and its corresponding measurement were first developed by Boyatzis (1982). Boyatzis, Goleman, & Rhee (1999) placed the behaviors of EI into four overall clusters: (a) emotional self-awareness (ability to recognize one's emotions); (b) emotional self-management (ability to regulate one's emotions); (c) social awareness (ability to recognize the emotions of others); and (d) relationship management (ability to maintain emotional ties to others).

EI and Effective Leadership

There has been much written about the link between EI and professional success (Ashforth & Humphrey, 1995; Carmeli, 2003; Cherniss, 2010; Goleman, 1998). In the business world a link has been established between emotional intelligence skills and effective managerial practices (Gardner & Stough, 2002; George, 2000; Higgs & Aitken, 2003) as well as with success in self-managed work groups (Wolff, Pescosolido, & Druskat, 2002). Transformational leadership practices (Bass & Avolio, 1994) which emphasize the relationships and shared values that

exist between leaders and followers (Northouse, 2004) have recently been strongly linked to the mastery of emotional intelligence skills among public governance and business leaders (Barbuto & Burbach, 2006; Barling, Slater, & Kelloway, 2000; Sosid & Megerian, 1999), although there remains a question as to the whether the link extends equally to both types of EI construct (Harms & Crede, 2010).

In part due to the emerging connections between relationship-centered leadership styles and professional success (Gerstner & Day, 1997) and the rise in popularity in post-industrial leadership practices, college educators have shifted the way leadership is taught to better reflect these constructs (Faris & Outcalt, 2001). One of the more prevalent theories of leadership taught in college student leadership programs is the Social Change Model of Leadership Development (SCM) (Higher Education Research Institute, 1996), which hypothesizes a structure of leadership that is process-oriented and inclusive, where leaders do not necessarily occupy hierarchical positions of power within an organization, and where they emphasize collective action, share power, and practice a passionate commitment to social justice (Astin, 1996). Within this model, effective leaders should possess competence in recognizing and practicing their own values, collaborating with others in a group, and creating benefit for the common good (Higher Education Research Institute, 1996).

On the surface both socially responsible leadership skills and trait based emotional intelligence skills appear to tap into similar content. Given the conceptual overlap, the current study sought to assess the extent to which measures designed to assess emotional intelligence and socially responsible leadership are related and are potentially measuring the same construct. Specifically, a measure of the practice of the Social Change Model of Leadership Development - the Socially Responsible Leadership Scale (SRLS)(Slack, 2006) and a trait-based measure of EI - the Emotional Competence Inventory-University Edition (ECI-U)(Wolff, 2006) were examined by fitting each of the two scales via confirmatory factor analysis, and then estimating a combined factor model that comprised both scales together. Results support a one-factor model for self-reported emotional intelligence (ECI-U) that differs from the published four-factor model it was designed to measure.

In addition, we confirm the existing eight-factor model for the SRLS (with strongly correlated sub-factors) and a combined model is supported in which the ECI-U and the SRLS are found to assess distinct-but-related elements of student leaders' personal attributes and skills. These results (including discriminant validity and the strong overlaps between EI skills and student leadership skills)

have important implications for how emotional intelligence and socially responsible leadership are taught to and assessed within college students.

Methods

Population and Sample

The research took place at a large public research-extensive university in the Midwest. Students who were enrolled in three types of campus-based leadership experiences were invited to participate: (a) an introductory leadership theory course that offers several small sections per semester; (b) a small upper-level course in emotional intelligence skills and leadership; and (c) a non-credit overnight leadership program focused on personal values and leadership offered four times per academic year through the Division of Student Affairs at the university. A total of 276 students participated in the study. Of this number, 51 were enrolled in the introductory theory class, seven were enrolled in the emotional intelligence skills class, 185 participated in one of the overnight retreats, and 33 were both enrolled in one of the classes and participated in the overnight retreat.

In each of these sub-samples, participation in the classes and retreat was open to all students at the university. Within the sample, 45% identified as Caucasian (n = 123), 15% as Asian-American (n = 43); 13% as Latino/a (n = 36); and 8% as African-American (n = 23). Additionally, 13% identified as international (n = 35) and 5% did not share their ethnicity. Approximately 60% were female (n = 166). The sample included a cross-section of class years. Thirty percent were first-year student (n = 82); 21% were sophomores (n = 59); 27% were juniors (n = 74); 11% were seniors (n = 29); and 11% were graduate students (n = 32).

Instrumentation

Through their participation in at least one of the three experiences, students completed two separate instruments. The first was the Emotional Competence Inventory – University version (Wolff, 2006). The ECI-U based on the Emotional Competence Inventory (ECI) (Wolff, 2006) is a 63-question, behaviorally based assessment of emotional intelligence focusing on four central clusters:

- Emotional self-awareness, which refers to knowing one's internal states.
- Emotional self-management, which refers to managing one's internal states.
- Social awareness, which refers to how one is aware of others' feelings.

- Relationship management, which concerns one's skill at encouraging desirable responses in others (Wolff, et al., 2002).

Each cluster itself can be broken into smaller subscales. Self-awareness consists of subscales of emotional awareness (recognizing one's emotions), accurate self-assessment (knowing one's strengths and limits), and self-confidence (possessing self-worth and a strong sense of one's capabilities). Self-management consists of subscales of emotional self-control (keeping disruptive impulses in check), transparency (acting congruently within one's values), adaptability (flexibility in handling change), achievement (striving to improve), initiative (readiness to act on opportunities), and optimism (persistence in pursuing goals). Social awareness consists of subscales of empathy (sensing others' feelings), organizational awareness (reading a group's emotional currents), and service orientation (anticipating the needs of others). Lastly, relationship management includes subscales of developing others (sensing others' needs and bolstering their abilities), inspirational leadership (inspiring both individuals and groups), change catalyst (managing change), influence (wielding effective persuasion tactics), conflict management (negotiating disagreements), and teamwork and collaboration (working with others on shared goals). (Wolff, 2006)

The measure includes a series of Likert-scale questions designed to measure self-perceptions of behaviors, and with a response set ranging from: 1 = Never to 5 = Consistently. A typical survey question is "I recognize the links between my feelings and what I think, do, and say." Higher scores are designed to signify higher degrees of self-perceived emotional intelligence. Internal reliability based on Cronbach's alpha ranged from 0.47 (Conflict Management) to 0.76 (Inspirational Leadership). Byrne, Dominick, Smither, and Reilly (2007) performed a study of the validity of the self-scored version of the ECI instrument with adults in a professional workplace and found good construct, discriminant, and criterion validity.

Table 1 offers an overview of the ECI-U sections.

Table 1. *ECI-U Sections*

- **SELF-AWARENESS**
 - Emotional Awareness
 - Accurate Self-assessment
 - Self-confidence
- **SELF-MANAGEMENT**
 - Emotional Self-control
 - Transparency
 - Adaptability
 - Achievement
 - Initiative
 - Optimism
- **SOCIAL AWARENESS**
 - Empathy
 - Organizational Awareness
 - Service Orientation
- **RELATIONSHIP MANAGEMENT**
 - Developing Others
 - Inspirational Leadership
 - Change Catalyst
 - Influence
 - Conflict Management
 - Teamwork and Collaboration

The second instrument participants completed was the Socially Responsible Leadership Scale (SRLS-R2) which is a survey designed to measure the self-reported leadership capacities of participants (Slack, 2006) along eight scales. These scales were designed to measure the eight dimensions of socially responsible leadership defined by the Social Change Model of Leadership Development (Higher Education Research Institute, 1996). The dimensions are Consciousness of Self (being aware of one's values), Congruence (acting in ways consistent with one's beliefs), Commitment (possessing significant investment in ideas or people), Collaboration (working with others in common effort), Common Purpose (involving others to create shared aims and values), Controversy with Civility (recognizing differences and dealing with them civilly), Citizenship (being socially connected to a larger community), and Change (believing in the value of a better world and that change is possible).

Questions on the SRLS are Likert-scaled, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). A typical survey question is, “I am seen as someone who works well with others.” The SRLS has now been used as a central dependent variable within the 2006 and 2009 Multi-Institutional Studies of Leadership (MSL) on over 100 college campuses, with internal reliability all above .75 (Dugan & Komives, 2007).

Procedure

Both the ECI-U and the SRLS were administered in an online format, and participants did not complete both surveys at the same time. The ECI-U was a required part of the course curriculum for each of the two classes, as well as for students participating in the non-credit leadership program. Students participating in these experiences were then invited to voluntarily complete the SRLS through the use of an online format. No extra credit was assigned in either class for completing the SRLS. Responses were then collected and analyzed.

Data Analysis

This research was designed to assess the relatedness of emotional intelligence to the practice of socially responsible leadership in general, and the empirical connection between ECI-U and SRLS instruments specifically. Confirmatory factor analysis was performed using the ECI-U and SRLS item-level data, first examining each instrument separately, and then merging them into a single measurement model to create a combined model.

Results

We first sought to assess whether the ECI-U empirically fit the four-factor model it was designed to reflect (i.e., measuring the four, related ECI-U factors of Self-Awareness, Self-Management, Social Awareness, and Relationship Management). For this purpose, we estimated the four-factor ECI-U model, and then estimated a more parsimonious model: a one-factor ECI-U model (in which all items load together onto a single Emotional Competence factor). Previous authors have found equivalent fit of the four-factor and one-factor representations of the ECI-U (Byrne, et al., 2007), leading us to expect similar results in the current sample. Results of these ECI-U factor model comparisons are presented in Table 2.

Table 2. *Fit Indices for Factor Analytic Model Comparisons*

Model	χ^2	Df	CFI	RMSEA (90% CI)	TLI (NNFI)	SRMR
ECI 4 factor	3975.61	1884	.93	.068 (.065, .071)	.93	.073
ECI 1 factor*	4237.83	1890	.93	.072 (.069, .075)	.92	.073
SRLS 8 factor*	3744.90	2182	.94	.055 (.052, .058)	.93	.079
SRLS 7 factor	3800.86	2189	.93	.056 (.053, .059)	.93	.077
SRLS 2 factor	4786.87	2209	.89	.070 (.067, .073)	.89	.077
SRLS 1 factor	5407.00	2210	.90	.078 (.075, .081)	.90	.079
1 ECI factor, 8 SRLS factors (combined model)	13795.66	8348	.92	.052 (.051, .054)	.92	.075

Note. $N = 238$. Best-fitting model. The ECI two factor model tested Self-Awareness and Self-Management items loading onto one *self* factor and Social Awareness and Relationship Management loading onto another *social* factor. The SRLS two-factor model tested Consciousness of Self, Congruence, and Commitment items loading onto a *self-awareness* one-factor and Common Purpose, Collaboration, Controversy with Civility, Citizenship, and Change items loading onto a *dealing with others* factor. The seven-factor SRLS model allowed Common Purpose items and Collaboration items to load onto one factor.

Based on the fit indices in Table 2, we judged the four-factor ECI-U model as demonstrating adequate fit (CFI = .93, RMSEA = .068, TLI = .93, SRMR = .073). However, when we inspected the latent factor correlations for the four-factor ECI-U model (see Table 3), we saw that the alleged four factors are very strongly intercorrelated (i.e., factor correlation estimates range from = .83 to = .95). As might be expected, when we proceeded to test the one-factor alternative for the ECI-U, we found that the more parsimonious model with fewer factors fit the data equivalently to the four-factor model (see Table 2). In other words, the correlations among ECI-U sub-actors in the four-factor ECI model are so large that it makes just as much empirical sense to treat the ECI-U as measuring a single factor of Emotional Competence (one-factor ECI model CFI = .93, RMSEA = .072, TLI = .92, SRMR = .073). Given the equivalent empirical fits of the four-factor and one-factor ECI-U models (i.e., both models produced the same comparative fit index, CFI), we conclude that the one-factor ECI-U model is most appropriate, on the basis of its relative parsimony.

Table 3. *Phi Matrix (Latent Factor Correlations) among ECI-U Factors (four factor model)*

	1.	2.	3.	4.
1. Self-Awareness	1.0			
2. Self-Management	.95	1.0		
3. Social Awareness	.88	.83	1.0	
4. Relationship Management	.86	.84	.87	1.0

After completing the confirmatory factor analysis of the ECI-U, we next turned to the SRLS. Our *a priori* set of model comparisons included two alternative measurement models: (a) the theoretically-specified eight-factor model for the SRLS (Slack, 2006) and (b) a one-factor SRLS model in which all items loaded together onto a unitary Socially Responsible Leadership factor. Results from these model comparisons are presented in Table 2. Based on the fit indices in Table 2, the eight-factor SRLS model was judged to provide adequate fit to the data (CFI = .94, RMSEA = .055, TLI = .93, SRMR = .079). Further, the one-factor model – not completely inadequate – exhibited worse fit than the theorized eight-factor model (i.e., CFI drops from .94 for the eight-factor model to .90 for the one-factor model). We thus concluded that the eight-factor model was most appropriate.

Factor correlations for the eight-factor SRLS model are given in Table 4. From inspecting Table 4, we note that the factor intercorrelations are relatively large, suggesting a strongly oblique set of sub-factors. One of the latent factor correlations in particular – between Common Purpose and Collaboration – was alarmingly high (= .92). Given this result, we conducted a *post hoc* model comparison involving a new, seven-factor SRLS model in which Common Purpose and Collaboration facets were merged into a single factor. Results of this *post hoc* seven-factor SRLS model (CFI = .93, RMSEA = .056, TLI = .93, SRMR = .077) were slightly worse than comparative fit results for the theoretical eight-factor SRLS model (CFI = .94, RMSEA = .055, TLI = .93, SRMR = .079), thus we decided the theoretical eight-factor SRLS model should retain its status as the best-fitting model, despite the large latent factor correlation.

Table 4. *Phi Matrix (Latent Factor Correlations) of SRLS Factors (8 factor model)*

	1.	2.	3.	4.	5.	6.	7.	8.
1. Consciousness of Self	1.00							
2. Congruence	.70	1.00						
3. Commitment	.50	.67	1.00					
4. Common Purpose	.66	.64	.72	1.00				
5. Collaboration	.63	.60	.71	.92	1.00			
6. Controversy with Civility	.43	.36	.40	.58	.72	1.00		
7. Citizenship	.47	.53	.47	.77	.67	.53	1.00	
8. Change	.58	.39	.39	.64	.65	.70	.66	1.00

Finally, we set about estimating a *combined model*, in which both ECI-U and SRLS items were fit into a single measurement model that specified distinct latent factors for the two instruments. To construct the combined model, we simultaneously estimated both of the best-fitting models from the prior analyses (i.e., we combined the one-factor ECI-U specification and the eight-factor SRLS specification within a single CFA model). This model addresses the current study's purpose of assessing discriminant validity between the ECI-U and the SRLS in the student leader population. Model fit results for the combined model are given in Table 5. From these fit indices in Table 5, the combined model (ECI-U and SRLS together) was judged to have adequate fit (CFI = .92, RMSEA = .052, TLI = .92, SRMR = .075). In other words, an overall nine-factor model comprising eight SRLS sub-factors plus one ECI-U factor seems appropriate for the student leader data. Of particular interest in this model are the latent factor correlations in the first column of Table 5. These factor correlations represent the overlap between the ECI-U and the SRLS constructs. What becomes apparent from inspecting the first column of Table 5 is that the ECI-SRLS correlations – while sizeable – do not approach 1.0 (i.e., the largest correlation is between ECI Emotional Intelligence and SRLS Consciousness of Self, = .68).

Table 5. *Phi Matrix (Latent Factor Correlations) of ECI-U and SRLS Factors (combined model)*

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Emotional Intelligence	1.00								
2. Consciousness of Self	.68	1.00							
3. Congruence	.45	.70	1.00						
4. Commitment	.48	.50	.67	1.00					
5. Common Purpose	.54	.66	.64	.72	1.00				
6. Collaboration	.59	.63	.60	.72	.92	1.00			
7. Controversy with Civility	.44	.43	.36	.40	.58	.72	1.00		
8. Citizenship	.44	.47	.53	.47	.77	.67	.53	1.00	
9. Change	.56	.58	.39	.39	.64	.64	.70	.66	1.00

In summary, results from the comparative sequence of confirmatory factor analytic models suggest: (a) the ECI-U can be represented as a one-factor model that assesses general emotional competence, (b) the SRLS can be represented as an eight-factor model that assesses eight, distinct-but-related aspects of socially responsible leadership, and (c) the ECI-U and SRLS assess different constructs, although correlations between these sets of constructs vary from .44 to .68, and could imply the existence of other latent constructs that commonly cause both EI skills and student leadership skills.

Discussion

Given the recent increased interest in the development of leadership skills in college students (Dugan & Komives, 2007) and the seeming convergence of emotional intelligence skills with post-industrial leadership abilities (Harms & Crede, 2010), this study examined the degree to which both leadership skills and emotional intelligence abilities are related and potentially represent identical constructs. Results revealed the degree to which subcategories of trait based emotional intelligence may be too related to serve as separate constructs, yet as a whole are separate from the types of skills necessary for the practice of post-industrial leadership. These findings have important implications for the understanding of the types of skills necessary for the effective practice of post-modern leadership, as well as how colleges and universities might improve their education of such practices for their students.

The finding that a one-factor construct of Emotional Competence represents the ECI-U responses as effectively as the current four-factor conceptual model it was designed to represent (Wolff, 2006) suggests that the construct of trait based emotional intelligence may need to be further refined. While the separate

competencies of self-awareness, self-management, social awareness, and relationship management seem theoretically distinct, their effective practice by college students may be undifferentiated. This finding is similar (both empirically and conceptually) to findings from studies of the foundations of emotional maturity and personal development captured by Chickering's Seven Vectors of Psychosocial Development (Chickering & Reisser, 1993), which have also been difficult to separate into distinct measurable constructs (Foubert, Nixon, Sisson, & Barnes, 2005).

As the SRLS is beginning to be used in a number of national studies of leadership skills in college students (Dugan & Komives, 2007; Dugan, Komives, & Segar, 2009), the determination that the current eight-factor model has good fit suggests the validity of its continued use for that purpose. Moreover, the degree to which each separate factor is distinguishable from other factors, even within the larger Individual, Group, and Community alignments (with a single notable exception) indicates that there are several separate skills required for effective leadership practice. That the Collaboration and Common Purpose scales can be combined into one integrated factor that results in negligible subsequent loss of fit represents the exception. For college students, the ability to create strong working relationships with peers, and being able to rally those peers around agreed-upon missions and goals, may be indistinguishable in a practical sense. However, the factors within the SLRS were all highly intercorrelated (latent correlations ranging from 0.39 to 0.72), suggesting that there likely exist higher-order latent factors or common causal constructs that under gird the effective practice of post-industrial leadership skills, and may include deeper aspects of individual makeup, such as trait personality (de Raad, 2005; Joseph & Newman, 2010b).

The data analysis also suggests that emotional intelligence and post-industrial leadership skills are related, but represent distinct aspects of human behavior. While the Individual capacities within the Social Change Model appear to overlap with the Self-Awareness and Self-Management skills of EI, the development of one seems distinct from the development of the other. The same appears to be the case with the Group and Community capacities of the Social Change Model and the Social Awareness and Relationship Management aspects of EI. As with the SRLS itself, the ability to practice these separate skill sets may be based, in part, on deeper latent factors that are connected to both, such as the Big Five personality dimensions of Agreeableness and Conscientiousness (Digman, 1990) or identity based factors that would lead students to see themselves as part of a larger community oriented whole, able to respectfully influence other individuals within that whole. Moreover, due to the relatedness of concepts, the development of skill in one area may serve to benefit students in the other.

Implications

Results from this study have implications for college educators, both in academic courses and student affairs programs and services, working to help students develop the types of emotional and leadership skills necessary for success after graduation. Specifically, they show that ability-based measures of emotional intelligence and post-industrial leadership constructs, while related, refer to distinct capacities and can be treated as such. Significantly, the development of emotional intelligence may serve to further the development of the types of relationship-based leadership skills college students must possess for success (Kezar, et al., 2006). The inclusion of emotional intelligence curricula within leadership development programs, courses, and activities as a separate section worthy of consideration (distinct from leadership skills) appears warranted and should be examined by those in the position to affect such decisions. Moreover, with the current focus of EI on the skills necessary for professional success in the areas of business and governance (Goleman, 2004), providing students in leadership development courses and programs with EI-related language and training may serve to help them better connect their leadership development experiences to the professional world after graduation, particularly as they enter relationship-oriented and emotion-laden professions (Joseph & Newman, 2010), such as customer service and interpersonal leadership roles.

Study Limitations and Future Research

The most significant limitation of the current study is that all the data regarding both emotional intelligence and leadership skills are self-reported. As Matthews et al. (2004) detail, the supposition that individuals might be able to accurately ascertain their degree of skill in emotional intelligence is on shaky ground. The same might be the case for self-reports of the practice of leadership skills. Future research should focus on using observer data and other 360-degree measurement methods to determine the degree to which students practice effective emotional intelligence and leadership. Moreover, the sample for this study was gleaned from a population of students enrolled in elective leadership classes or having participated in voluntary leadership retreats focused on self-awareness skills. The results may have been skewed by the fact that students in the sample could have been more comfortable seeing themselves as leaders, or may have been more knowledgeable about these areas of research than a typical college student. Future research should focus on more random samples of students to better represent the college population at large.

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