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EMOTIONAL INTELLIGENCE: COMPARISONS OF CRITERION-RELATED VALIDITY ACROSS CONCEPTUAL AND METHODOLOGICAL VARIANTS OF MEASUREMENT

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EMOTIONAL INTELLIGENCE: COMPARISONS OF CRITERION-RELATED
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ABSTRACT

Emotional intelligence is a reasonably new construct that is little more than 15 years old within the research literature, but has existed in some form since the time of Darwin (Bar-On, Handley, & Fund, 2006). Although this concept has been around for quite some time, it has been conceptualized in a variety of ways. Therefore, the current study aimed to provide a clearer understanding of the construct and how to best measure emotional intelligence.

Using two samples of undergraduate students who were either currently employed or had been employed in the past we were able to test several hypotheses. More specifically, we were interested first in the relationship among various measures of emotional intelligence. A positive relationship among the measures was hypothesized. Additionally, we were interested in determining whether the methodologies (ECI Self, ECI Other, MSCEIT, and EI Interview) or conceptualizations of emotional intelligence (Facilitating, Managing, Perceiving, and Understanding Emotions) were underlying the data. Finally, past research has suggested that emotional intelligence may be used to predict job performance. Therefore, we were interested in examining the relationship between emotional intelligence and job performance further.

Through the use of structural equation modeling, correlational analyses, and regressions, we were able to address each of our hypotheses and research questions. More specifically, a low positive relationship was found between measures of emotional intelligence. Additionally, using structural equation modeling in the larger of our two samples, we found that the methodologies were driving the data rather than the

conceptualizations of emotional intelligence. Finally, we were unable to find a significant predictive relationship between emotional intelligence and job performance in either sample.

These results provide not only an in-depth look at the relationship between various measures of emotional intelligence, but they also show that more research is needed to fully understand emotional intelligence. Future research should focus on finding a unified definition of emotional intelligence and pinpoint the best uses of emotional intelligence in the workplace.

DEDICATION

I dedicate this dissertation to my husband, Nate Hanna. His love and support over the past 7 years has allowed me to not only complete this dissertation, but to achieve my lifelong dream of completing obtaining a Ph.D.

I would also like to dedicate this work to my family and friends who supported through this long process. Without their love and encouragement I would not have had the strength to persevere through all the roadblocks I encountered during my data collection.

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TABLE OF CONTENTS

Table of Contents (Continued)

LIST OF TABLES

List of Tables (Continued)

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

Emotional intelligence is a term that has been growing in popularity since the late 1980s. Although a Google™ search produces 25.8 million hits for "emotional intelligence" (August 1, 2006) the amount of empirical research on emotional intelligence is not nearly as voluminous. Much of the existing work on emotional intelligence has focused on definitional and measurement issues (e.g., Freudenthaler & Neubauer, 2005; Goldenberg, Matheson, & Mantler, 2006; Matthews, Zeidner, & Roberts, 2002; van der Zee & Wabeke, 2004). When defining emotional intelligence (EI), some researchers have defined it as an ability, similar to cognitive ability, whereas other researchers have defined emotional intelligence as a trait, similar to personality (e.g., Goleman, 1995; Mayer, Salovey, & Caruso, 2004). For example, using the ability approach an emotional intelligence score is meant to indicate what a person is capable of doing in terms of EI, whereas using the trait approach the score meant to indicate how a person will typically use emotions in any given situation.

These differing conceptualizations of emotional intelligence have resulted in a literature base that is fractured. This conceptual divide, and the measurement issues that surround it, drive the current research project. More specifically, the two conceptualizations of emotional intelligence are rarely compared to one another empirically, but instead are compared to such concepts as cognitive ability and personality (e.g., Fox & Spector, 2000; Schulte, Ree, & Carretta, 2004; van der Zee, Thijs, & Schakel, 2002). Therefore, one purpose of this study is to more closely examine

the relationships between the ability and trait models of EI. In order to complete such a comparison several measures of emotional intelligence will be used in this study. They include the Mayer-Salovey-Caruso Emotional Intelligence test (MSCEIT; Mayer, Salovey, & Caruso, 2002), an ability focused measure of emotional intelligence and the Emotional Competency Inventory (ECI; Boyatzis, Goleman, & Hay Group, 2001), a trait measure. In addition to these established EI measures, an emotional intelligence interview will be developed using the ability conceptualization of EI.

The second overarching purpose in this research is to compare self-generated and other-generated reports of EI and their utility in predicting job performance. More specifically, some measures of EI rely solely on self reported assessments, whereas others rely on outside observers to provide ratings of EI. The MSCEIT and ECI self ratings are both examples of self-reported ratings, whereas the ECI other ratings and interview are examples of other-generated ratings.

Embedded within this measurement issue is how to best obtain other-generated assessments of emotional intelligence. One such method for gathering other-generated ratings is the selection interview. Although there are many measures of emotional intelligence that exist, few researchers have attempted to develop an interview designed to assess emotional intelligence (e.g., Deeter-Schmelz & Sojka, 2003; Lumley, Gustavson, Partridge, Labouvie-Vief, 2005), let alone develop an interview which has the sole purpose of assessing emotional intelligence. Since many companies currently use an interview as part of their selection process, the use of an emotional intelligence interview

2

in this study will help further the integration of emotional intelligence assessment into the workplace.

To summarize, the comparisons to be made in the current research focus on the conceptualization of emotional intelligence and the measurement of emotional intelligence. The remainder of this section will review information on emotional intelligence including definitions, measurement issues surrounding emotional intelligence, and past literature that has utilized emotional intelligence in the workplace. Finally, the hypotheses for the current study will be provided with rationale for each.

<u>Emotional Intelligence</u>

Emotional intelligence is a reasonably new construct that is little more than 15 years old within the research literature, but has existed in some form since the time of Darwin (Bar-On, Handley, & Fund, 2006). Although emotional intelligence is a relatively new research topic, it is widely recognized by the popular press. From articles in the Harvard Business Review (e.g., Druskat & Wolf, 2001; Goleman, 2004) to newspaper articles like one found in the St. Petersburg Times Online (Deggans, 2006), emotional intelligence is a buzzword that is not likely to be forgotten any time soon.

As mentioned, emotional intelligence has been conceptualized by many different people in a variety of manners. One basic definition states that emotional intelligence is the ability to understand and manage emotions (Barchard & Hakstian, 2004). Although this is one definition of emotional intelligence, it is not the only definition. In fact, emotional intelligence can be conceptualized two different ways. Therefore, the remainder of this section will be devoted to providing an overview of the different

conceptualizations of EI as well as the research that surrounds the use of EI in the workplace.

Ability Model

Definition

Bar-On et al. (2006) state that from all of the existing definitions (Darwin until the present) several key components comprise emotional intelligence. They include the ability to: understand and express yourself; understand and relate with others; manage and control emotions; change, adapt, and solve problems of a personal and interpersonal nature; and finally the ability to generate positive mood and to be self-motivated. The diversity of these key components makes it easy to understand why researchers disagree on how to define emotional intelligence. These key components alone could make up numerous definitions before they ever overlapped in meaning.

Although emotional intelligence is a new construct, its root is found in social intelligence, a concept attributed to Thorndike (Landy, 2005; Law, Wong, & Song, 2004). This conceptual lineage implies that it may be most appropriate to view emotional intelligence as a form of intelligence. In fact, the ability conceptualization of emotional intelligence proposed by Salovey and Mayer (1990) meets the criteria for being considered a form of intelligence. Within the ability conceptualization, EI can be defined as "the abilities to accurately 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 et al., 2004). Law et al. (2004) state that Gardner defined intelligence as "the *ability* to solve

4

problems, or to fashion products, that are valued in one or more cultural or community settings." They argue, therefore, that because the ability conceptualization of emotional intelligence addresses EI as a set of "abilities," or "can do" versus "will do" aspects of behavior, then EI is indeed a form of intelligence.

The ability conceptualization proposed by Salovey and Mayer (1990) can be further defined by dividing the definition into four specific branches. The first branch of EI focuses on perceptions. More specifically, this refers to how well a person can perceive their own and other's emotions, particularly in faces, pictures, and voices. The second branch follows closely and puts these perceptions into use. A person who is emotionally intelligent will be able to control their emotions to allow other cognitive processes to occur. Another branch in the ability model involves understanding emotions. As you might suspect, it is important for a person to interpret emotions correctly and to understand how different emotional responses and reactions are interrelated. Finally, the fourth branch of the ability model deals with managing emotions and is comprised of regulating your own and other's emotions. When the branches are taken as a unit, the process from first recognizing emotions, to controlling and understanding emotions, and finally utilizing emotions in the best possible manner is complete (Neubauer & Freudenthaler, 2005; Salovey & Grewel, 2005; Salovey & Mayer, 1990).

Validity Evidence

The ability model has been compared to many different existing constructs/concepts since its inception, but is most often compared to measures of

cognitive ability. Since researchers have touted this model to be a form of intelligence, it is important to understand its relationship with cognitive ability. In fact, using 704 United Sates Air Force trainees, Roberts, Zeidner, and Matthews (2001) found that the correlations between cognitive ability, measured by the ASVAB (Armed Services Vocational Aptitude Battery) and AFQT (Armed Forces Qualification Test), and the ability model (measured by the MEIS) ranged from .18 for the administration facet of the ASVAB to .43 (AFQT composite score). Similarly, in a review by Daus and Ashkanasy (2005), ability EI was reported to have correlations ranging from .14 to .35 with cognitive ability.

Barchard and Hakstian (2004) also looked at the relationship of cognitive ability with ability EI using a sample of 176 undergraduate students. These researchers measured EI with a variety of ability measures and then conducted a factor analysis resulting in 5 factors: emotional congruence, emotional independence, social perceptiveness, alexithymia (inability to describe emotions in a verbal manner), and social confidence. The five factors were then correlated with cognitive ability measures and it was shown that emotional independence, alexithymia, and social confidence were not significantly related to cognitive ability (*r*'s ranging from .00 to .19). Social perceptiveness, however, was significantly related to cognitive ability dimensions with correlations ranging from .27 to .50. Finally, emotional congruence was significantly related to verbal ability (*r*=.24). Similar to the findings of Barchard and Hakstian, another review reports that the ability model can be moderately correlated with cognitive ability with correlations around .30 (Van Rooy, Viswesvaran, & Pluta, 2005).

Just as the ability model's relationship with cognitive ability has been examined, its relationship with personality has been examined as well. Using 246 undergraduate students, Day and Carroll (2004) found that the ability model is indeed related to the Big Five personality factors (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism). More specifically, the authors found correlations between the ability model and personality ranging from -.15 to .23. One personality factor, openness to experience, was significantly related to all four ability factors (emotional management, emotional understanding, emotional integration, and emotional perception) with correlations ranging from .13 to .23. It is interesting to note that when examining the openness to experience construct more closely, it has an intellectual curiosity component, which may provide additional indirect evidence supporting the relationship between ability EI and cognition (McCrae & Costa, 1997). Conscientiousness was not significantly related to any of the four ability factors of emotional intelligence, and agreeableness and neuroticism were only related to one factor each. Finally, extraversion was significantly related to emotional understanding (r=-.15) and emotional integration (r=-.11).

Lopes, Salovey, Côté, and Beers (2005) also looked at the relationship between the Big Five personality factors and emotion regulation (intrapersonal and interpersonal emotion regulation abilities) ability in a sample of 76 undergraduate students. Lopes et al. found that of the 5 personality factors, only agreeableness was significantly related to emotion regulation (r=.40). The other personality factors had varying correlations with emotion regulation ranging from -.20 to .15.

Finally, unlike many other studies, Schulte et al. (2004) looked at both cognitive ability and personality in relation to ability EI in a sample of 102 graduate students who were also employed full time. Schulte et al. looked at the relationship among ability EI measured by the MSCEIT, the Big 5 measured by the NEO-FFI, and cognitive ability measured by the Wonderlic Personnel Test. They found that the correlations among the three measures were all statistically significant. More specifically, Schulte et al. found that the MSCEIT had a moderate correlation with the Wonderlic (r=.45). This correlation is similar, but slightly higher than other correlations typically found in the extant literature, and those reported in this review. The MSCEIT scores were also correlated with the NEO-FFI scores. The authors found that all five personality dimensions represented in the NEO-FFI were related to the MSCEIT scores. Extraversion, openness to experience, agreeableness, and conscientiousness were all correlated positively with emotional intelligence with correlations ranging from .18 to .27. As you would expect, emotional intelligence was significantly and negatively correlated with neuroticism (r=-.28). These findings were similar to those of Day and Carroll (2004) and Lopes et al. (2005).

Combined, these findings provide evidence that the ability model of emotional intelligence is related to both cognitive ability and personality. Of the studies reviewed in this section, all used the MSCEIT as a measure of ability EI except Roberts et al. (2001) who used its precursor the MEIS. Given its wide-spread use and the limited number of ability measures available, this study will also utilize the MSCEIT.

<u>Workplace Use</u>

The ability conceptualization of emotional intelligence has been used in many different ways by researchers. One study utilized students in a business communication course to show that awareness of emotional intelligence is significantly related to effectiveness in teams. More specifically, Jordan and Ashkanasy (2006) assigned undergraduate students to teams and allowed them to work together for ten weeks. Throughout the 10-week time period teams reported on interactions, processes, and such things as mood, work environment and diversions. The individuals also completed measures of ability emotional intelligence. The authors found that self-awareness of emotional intelligence, a difference score between self and other-provided EI ratings, was significantly related to the effectiveness of the team process, goal focus, and lastly, team effectiveness. These findings are important because more and more businesses are becoming team-oriented and they show the versatility of emotional intelligence in the workplace.

Lopes, Côté, and Salovey (2006) also focused on the ability model of emotional intelligence in a recent review of the EI literature. The authors address such issues as how ability EI is assessed and how EI is related to different outcome variables such as performance, teamwork, and stress. One interesting variable that is examined in this review is prosocial behavior. Lopes et. al report that many researchers (e.g., Barchard, 2001; Brackett & Mayer, 2003) have found that emotional intelligence is related to prosocial behaviors as well as the quality of interpersonal relationships. Although this may not seem important, in the workplace today where there is competition and the need

to constantly bring in new clients, these qualities are important. For example, as a consultant part of your job is to bring in new clients, if you are low in emotional intelligence and therefore not as adept at handling interpersonal relationships, your ability to bring in new clients may suffer. Likewise, helping your co-worker complete a difficult project on-time is a good example of a prosocial behavior that may not have occurred without a high level of emotional intelligence.

Although emotional intelligence has been studied in relation to many variables, much of the literature has focused on the relations between emotional intelligence and performance. Research has examined the relationship of EI with both task and job performance. Task performance refers to how well a person completes a single task, whereas job performance refers to how a person performs on all job tasks combined, not just a single task. One example of such research is a study conducted by Lyons and Schneider (2005) that examined the influence of ability-based emotional intelligence on task performance in 126 undergraduate students. Using mental arithmetic and speech tasks, the authors found that two facets of emotional intelligence did indeed predict performance. More specifically, emotional perception and facilitating cognition both predicted performance on the speech task. For males, there was a negative relationship between emotional intelligence and task performance, whereas for females, the relationship was positive.

Lyons and Schneider (2005) have not been the only researchers to examine the relationship between emotional intelligence and task performance. Jordan and Troth (2004) examined the relationship between ability emotional intelligence and performance

on a survival situation exercise, and conflict resolution in 108 teams of 4 to 5 undergraduate students. As part of this study, participants were asked to rank 15 items according to their importance in surviving. Individuals completed this task first and then were assigned to teams to complete the task again. Rankings were compared to survival expert's rankings and the difference scores were derived. The lower the difference score, the better the individual or team performed. Jordan and Troth found that although emotional intelligence was significantly related to the type of conflict resolution style that was adopted (r's ranged from -.12 to .35), it was not significantly related to individual performance on the survival task (r= .08).

Although Jordan and Troth (2004) did not find a significant relationship between the ability model of emotional intelligence and performance on a task, several other researchers have found significant findings regarding this relationship. For example, Van Rooy and Viswesvaran (2004) conducted a meta-analysis that looked at how EI relates to performance. In this meta-analysis, performance included job performance as well as success in school (GPA), performance in sports, and performance on tasks that were part of a lab study. Based on 59 samples (19 of which contained measures of job performance), the authors concluded that emotional intelligence measures are predictive of performance in 90% of situations. The true correlations between EI (ability and mixed model) and performance varied. There was a .24 correlation between EI and employment as well as EI and other performance (sports, lab tasks). The correlation between EI and academic performance was slightly lower at .10. More specific to the ability conceptualization of EI, Van Rooy and Viswesvaran found a true correlation of .19

between the MEIS, a precursor to the MSCEIT, and performance. It is interesting to note that three of the four ability model dimensions measured (assimilation, understand, and management) had higher true correlations (.27, .25, and .21, respectively) than the overall measure.

Although there are conflicting findings in the literature as to how well ability EI can predict performance, it does seem from the information presented here that EI is useful in predicting performance in certain situations. Given the widespread use of the MSCEIT in measuring ability EI, the following section will provide some detail on the measure.

<u>Measurement</u>

The MSCEIT was developed in 2002 from an earlier version (MEIS). This measure, as alluded to in the research previously discussed, has four primary factors. They are perceiving emotions, facilitating thought, understanding emotions, and managing emotions. Each facet is defined in terms of an ability that a person possesses. Perceiving emotions has been defined as "the ability to perceive emotions in oneself and others, as well as in objects, art, stories, music, and other stimuli." Facilitating thought refers to "the ability to generate, use, and feel emotion as necessary to communicate feelings, or employ them in other cognitive processes." Understanding emotions is "the ability to understand emotional information, how emotions combine and progress through relationship transitions, and to appreciate such emotional meanings." Finally, managing emotions is "the ability to be open to feelings, and to moderate them in oneself and others so as to promote personal understanding and growth" (Mayer, et al., 2002, p. 7). These

four branches are tested in a variety of ways. For example, test takers are asked to identify emotions present in pictures, identify situational responses as ineffective or effective, and label definitions with the proper emotion.

These branches can be further divided into task levels such that each branch contains two task levels. More specifically, Perceiving Emotions if comprised of Faces and Pictures. Facilitating Thought is made up of Facilitation and Sensations, and Understanding Emotions contains Changes and Blends. Finally, Managing Emotions is made up of Emotional Management and Emotional Relations. Unfortunately, these task levels do not have definitions. Instead they are indicative of the types of items that are being asked. For example, the Facilitation task level contains items that describe a situation. The test taker is then asked to identify the utility of three emotions given context of the situation.

Given the multiple facets of this measure, it is important to understand the relationships among the branches and tasks. The authors report that intercorrelations among the tasks using the General Scoring method range from .14 (Changes – Faces) to .55 (Emotional Management – Emotional Relations) and from .12 (Changes – Faces) to .52 (Changes – Blends) for the Expert Scoring method. The branches are moderately correlated with relationships ranging from .30 (Understanding Emotions – Perceiving Emotions) to .54 (Facilitating Thought – Perceiving Emotions) in the General Scoring method. They range from .27 (Understanding Emotions – Perceiving Emotions) to .51 (Managing Emotions – Understanding Emotions) using the Expert Scoring method. As shown by these correlations, the tasks and branches do produce similar ratings.

The authors of the measure also report that it is relatively free from response bias because the items test ability and are not simply self-report items. Furthermore, the MSCEIT has been subjected to reliability and validity analyses using two types of scoring (expert and general). Expert scoring refers to a panel of subject matter experts that rated items whereas general scoring refers to scoring that takes place using a normative sample. The user's manual (Mayer et al., 2002) states that the overall split-half reliability of the MSCEIT is .91. Split-half reliabilities were also determined for the four branches (perceiving, facilitating, understanding, and managing emotions) within the MSCEIT. These reliabilities ranged from .79 to .91 for the general scores and from .76 to .90 for expert ratings. Within each branch, there are two scales. The coefficient alpha reliabilities for these subscales were somewhat lower, ranging from .64 to .88 (general scoring) and from .56 to .87 (expert scoring). Although some of these reliabilities are not ideal, the reliability of the total measure and the branch reliabilities are well within the accepted range.

The authors of the MSCEIT also provide validity evidence. The MSCEIT is reported to have good face and content validity. The User's Manual states that this is based on a literature review and external study demonstrating that the test appears to measure what it is supposed to measure. As with any measure, it is also important to note the construct validity (both convergent and discriminant) and the authors have reported such information on the MSCEIT. Similar to the extant literature, the User's Manual for the MSCEIT reports a moderate correlation (ranging from .36 to .38) with the Army Alpha Vocabulary Scale, a correlation of approximately .05 with the Raven's Progressive

Matrices, and correlations of .15 with self-reported Verbal and Math SAT scores. Taking

into account the mixed model of EI, the authors also reported correlations of the MSCEIT

to various measures assessing the mixed model. The BarOn EQ-i, a popular mixed

model measure, was shown to have correlations ranging from .12 to .18 with the

MSCEIT. Another common measure found in the mixed model, the Trait Meta-Mood

Scale, was found to be significantly correlated ($r=.29$) with the MSCEIT. Finally, the

MSCEIT and personality were correlated. Similar to the extant literature (e.g., Lopes,

Brackett, Nezlek, Schütz, Sellin, & Salovey, 2004), the User's Manual states that the

correlation between the Big Five (measured by the NEO-PI) and the MSCEIT range from

-.23 to .25. More specifically, the MSCEIT significantly with Agreeableness ($r=.33$),

Openness to experience ($r=-.23$), and Conscientiousness ($r=.25$). The MSCEIT is also

correlated, although non-significantly, with Neuroticism ($r=-.13$) and Extroversion

($r=.04$).

<center>Mixed Model</center>

The mixed model provides an alternative way of conceptualizing the emotional

intelligence construct. While both the ability and mixed models purport to measure the

same construct, there is surprising little empirical relationship between the measures used

in these two approaches. In fact, in a meta-analysis conducted by Van Rooy et al. (2005),

reported that the correlation between ability and mixed model measures of emotional

intelligence was only .14, whereas the correlation among the mixed model measures was

substantially higher at .71. Given the low correlation between the models, it is important

to examine the definition of the mixed model as well as the validity evidence,

<center>15</center>

measurement, and workplace use of the conceptualization. The remainder of this section will provide information on each of these topics.

<u>Definition</u>

The mixed model is the second widely researched model of emotional intelligence. This model refers to the trait-based or dispositional nature of emotional intelligence, rather than the ability aspects (Van Rooy et al., 2005). Although no single definition exists to describe this school of thought, Bar-On (1997) provides a definition of EI that is representative of the mixed model approach: "an array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p.14). This definition is the cause of much controversy surrounding emotional intelligence due to its broad parameters and use of the term "intelligence" in its name. Additionally, some researchers believe that this trait-based model is merely a conglomeration of many different psychological constructs.

Another definition of the mixed (trait) based model comes from Goleman who popularized emotional intelligence in the mid 1990's. Goleman defines emotional intelligence to include "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope" (Goleman, 1995, p. 34).

Although there are multiple definitions that can be used when assessing the mixed model of EI, it is still a popular conceptualization among researchers. This interest has led to numerous validity investigations, which will be presented in the following section.

<u>Validity Evidence</u>

Like the ability model, the mixed model of emotional intelligence has been studied in depth by many researchers (e.g., van der Zee & Wabeke, 2004; van der Zee et al., 2002; Van Rooy et al., 2005). It has also been subjected to the same scrutiny that the ability model of emotional intelligence has received. In fact, the mixed model has been shown to be closely related with personality measures that currently exist. Because the mixed model conceptualization is trait-based, this is not surprising, but it still has led many researchers to be skeptical of the model's usefulness in both research and applied settings.

For example, van der Zee and Wabeke (2004) found that personality is significantly related to emotional intelligence. The authors looked at the relationship between the BarOn EQ-i and the Five Factor Personality Inventory in a sample of 1186 managers. They found that 14 of the 15 dimensions of emotional intelligence were significantly correlated with extraversion and neuroticism (emotional stability) (significant r's ranging from .18 to .58) (see Table 1 for listing of EQ-i dimensions). Additionally 12 of the 15 emotional intelligence dimensions were significantly correlated with autonomy (significant r's ranging from .13 to .60). Finally the remaining two personality dimensions (conscientiousness and agreeableness) were also correlated significantly with the majority of the emotional intelligence dimensions (significant r's ranging from .10 to .51).

Similarly, a meta-analysis conducted by Van Rooy et al. (2005) reported that the true correlations between mixed model EI measures and the Big Five personality factors

ranged from .27 to .40. It is interesting to note here that the same meta-analysis reported true correlations ranging from .06 to .18 between ability EI measures and the Big Five. Although, it may seem as though the ability EI model is related in a very similar way to the Big Five as the mixed model, these correlations show that despite some overlap between the correlations at the lower end of the range, the mixed model is more highly related to the Big Five than the ability model. In addition to the comparison between EI and personality, Van Rooy et al. also provided evidence of the relationship of the mixed model of EI with cognitive ability. More specifically, using a set of 28 different correlations with more than 8500 participants, the mixed model had a true correlation of .13 with cognitive ability. Again, for comparison purposes, the same meta-analysis reported a true correlation of .34 between cognitive ability and the ability conceptualization of EI. These findings suggest that the mixed model is more closely related to personality than to cognitive ability, whereas the ability model is more closely related to cognitive ability than personality.

van der Zee et al. (2002) also examined the relationship between EI, personality, and academic intelligence in a sample of 116 college students. Using the General Aptitude Test-Battery (GATB), the Connector-P[3], and a 360° emotional intelligence measure developed for the study they were able to show that emotional intelligence was only moderately related to academic intelligence (GATB scores; r=.30). As expected from past research, van der Zee et al. also found that correlations between self ratings and personality ranged from r=.29 (stability with other-rated emotion control) to r=.77 (openness with self-rated autonomy).

Given the relatively low correlation found between the mixed model of emotional intelligence and cognitive ability, many researchers have chosen to focus on its relationship with personality. As shown in this section, the mixed model does indeed have quite a bit of overlap with personality measures, but still seems to bring something unique to the table. Therefore, researchers are still pursuing this form of emotional intelligence as a useful developmental tool in the workplace and schools. Since researchers are focusing on how to best use trait EI, it is important to understand how the conceptualization can be used in the workplace. In fact, there are many uses for EI ranging from the prediction of leadership skills to employee development to predicting job performance.

<u>Workplace Use</u>

Although much of the literature surrounding emotional intelligence and work performance has used the ability model as a basis, several researchers have used the mixed model to investigate the predictive ability of EI. One such study was conducted by Offermann, Bailey, Vasilopoulos, Seal, and Sass (2004). In this study, emotional intelligence was measured using the ECI and both individual and team level performance data were collected in a sample of 425 undergraduate business students. The main task in this study was a blizzard survival task where 15 items had to be ranked in order of importance for surviving a blizzard. Participant rankings were compared to a survival expert's rankings. This task was completed at both an individual and then a team level. Results showed that none of the four ECI clusters (self-awareness, self-management, social awareness, and relationship management) were significantly related to an

individual's performance on a blizzard survival task (r=-.05, .01, -.06, and -.06 respectively). Performance on this task at the team level was also unrelated to ECI scores. Despite the lack of relationship between the ECI and blizzard scores, ECI scores were significantly related to team performance on a written project in which members wrote a paper that incorporated concepts learned in a class. More specifically, self-management, social awareness, and relationship management were all significantly related to performance on this task (r=.10, .09, and .09 respectively).

In a study by Higgs (2004), it was shown that EI was significantly related to performance of call center employees. More specifically, participants completed a measure of emotional intelligence, individual level performance assessments were obtained, and demographic data was gathered. With this information Higgs found that overall EI was significantly correlated with performance (r=.22). Performance was also significantly related to six of the seven dimensions of EI measured in this study. Finally, Higgs examined whether or not EI scores differed for high performers and low performers. Overall EI as well as five of the seven EI dimensions differ significantly based on performance level.

Finally, as reported in the ability section of this review, Van Rooy and Viswesvaran (2004) conducted a meta-analysis to determine how different measures of emotional intelligence relate to performance (academic and employment). They found that although performance correlated similarly with ability and mixed model measures, the mixed model (measured by the ECI) was slightly more correlated to performance (r=.23 compared to .19).

<u>Measurement</u>

One mixed model measure being used in the workplace is the Emotional Competence Inventory (ECI) developed by the Hay Group (Wolff, 2005). The ECI is a 360° tool that utilizes the ratings of both the self and others in order to determine the level of emotional intelligence the person exhibits. The ECI framework, like all emotional intelligence frameworks, has several facets or clusters. There are four main clusters that encompass the eighteen competencies used in this measure. The first cluster is self-awareness and can be defined as "knowing one's internal states, preferences, resources, and intuitions." This particular cluster has three competencies: emotional awareness, accurate self-assessment, and self-confidence. The second cluster is self-management and can be defined as "managing ones' internal states, impulses, and resources." There are six competencies within this cluster: emotional self-control, transparency, adaptability, achievement, initiative, and optimism. The third cluster, social awareness, refers to "how people handle relationships and awareness of others' feeling, needs, and concerns" and has three competencies: empathy, organizational awareness, and service orientation. Finally, the last cluster is relationship management and can be defined as "the skill or adeptness at inducing desirable responses in others." This cluster contains six competencies: developing others, inspirational leadership, change catalyst, influence, conflict management, and teamwork and collaboration. (Wolff, 2005, p. 3-4)

The technical manual updated in 2005 by Wolff presents validity evidence for the ECI that mimics that found in the general mixed model literature presented throughout

21

this section. More specifically, none of the four clusters were significantly related to

undergraduate or graduate GPA or scores on the GMAT (*r*'s ranging from -.01 to .08).

Additionally, as we would expect, the clusters were significantly related to the NEO five

personality factors with correlations ranging from -.47 to -.37 for Neuroticism and from

.22 to .57 for Extraversion, Openness to Experience, Agreeableness, and

Conscientiousness.

In addition to these general inquiries into the relationships among known

constructs and emotional intelligence, the ECI was also compared to specific measures of

cognitive ability and personality. When compared to the Myers Briggs Type Indicator,

only the sensing/intuiting and thinking/feeling dimensions were significantly related to

the ECI. More specifically, sensing/intuiting was significantly related to eight of the ECI

competencies and thinking/feeling was significantly related to fourteen of the ECI

competencies. Seven of these fourteen make up the social skills cluster and had

correlations ranging from -.45 to -.60.

The ECI was also compared to the NEO-PI-R. Of the five personality factors,

neither neuroticism nor agreeableness was significantly correlated with any of the ECI

clusters. Extroversion was significantly related to all four cluster (*r*'s ranging from .24 to

.49). Openness to experience was significantly related to all clusters except self-

management (*r*'s ranging from .22 to .28). Finally, conscientiousness was related to all

clusters except social awareness (*r*'s ranging from .21 to .39). Unfortunately, the

Technical Manual does not address the relationships between the personality factors and

the competencies of the ECI.

In an effort to show the discriminant validity of the ECI, Zadel (as cited in Wolff, 2005) found that Eysenck's Personality Questionnaire was not significantly related to the ECI clusters. This finding demonstrates that although emotional intelligence and personality are related, they are distinct constructs. Wolff (2005) also reports the convergent validity study conducted by Tumasjan et al. in 2005. In this study, the German version of the ECI was compared to the Wong and Law emotional intelligence scale. The authors found that there was a high correlation between the scales ($r=.41$), but the subscale correlations were much lower ranging from .13 to .34.

Based on the evidence presented on both the general mixed model research and the ECI research, the mixed model of emotional intelligence is one that deserves continued research attention despite the critical viewpoints often associated with the model. Further research will need to provide more evidence of the unique contribution of the mixed model after controlling for personality variables.

To provide a summary of the dimensions for both the MSCEIT and ECI and how they relate to one another, please see Table 2. Despite the outward 1 to 1 correspondence between the 4 branches of the MSCEIT and 4 clusters of the ECI, the 8 tasks that make up the MSCEIT branches and the 18 competencies that comprise the ECI clusters do not appear to have that same 1 to 1 correspondence. For example, Branch 1 (Perceiving Emotions) of the MSCEIT entails identifying feelings, thoughts, honesty, etc in pictures and faces. The corresponding ECI cluster (Self-Awareness) contains the competency of Self-confidence, which does not appear to be inherent in the MSCEIT Branch. Therefore, this table is meant to provide an overview of how the branches and clusters

align, but does not address the finer details of the relationships between the MSCEIT tasks and ECI competencies.

Conclusions

Although not all of the research surrounding emotional intelligence has been positive, emotional intelligence is a potentially useful construct. Van Rooy and Viswesvaran's (2004) meta-analysis provided evidence that emotional intelligence does provide a unique contribution above general mental ability and personality in the prediction of performance (job, academic, and sports). More specifically, using a combination of ability and mixed model measures, they found that emotional intelligence provided a small amount of incremental validity in the prediction of performance above general mental ability (.02). Because ability measures of EI show greater correlations with general mental ability, it is likely that the use of mixed and ability model measures in this analysis reduced the incremental validity finding.

Van Rooy and Viswesvaran (2004) also found that EI added some incremental validity in the prediction of performance above and beyond that of personality. The results showed that the incremental validity varied quite a bit from .06 (conscientiousness) to .29 (openness to experience), with the remaining three falling very close together at .14 (extraversion), .17 (emotional stability), and .18 (agreeableness). Again, these validities may have been affected because a combination of ability and mixed model measures were used in this analysis, despite the differential relationships of ability and mixed EI with personality. Despite the combination of measures, these findings appear to suggest that emotional intelligence measures make a unique

24

contribution to the literature; therefore, it is important to understand the measurement issues that surround emotional intelligence. The next section in this review will address this concern.

Measurement

The second purpose of this study is to examine how different sources and techniques affect emotional intelligence scores and EI utility. In this section the problems surrounding self-report assessments of EI will be addressed as well as the potential utility of assessments that use other-provided ratings.

Self-Provided Ratings

Self-reports are a common way to gather information on a variety of topics from demographic information to personality to emotional intelligence. Self-reports, however, are open to response biases as one might suspect. For example, it is easy to say that you are conscientiousness, but this may not be true. There is a subset of emotional intelligence measures that rely on such self-reports. One main concern with such self-report responses is that they can be manipulated in order to manage other's impressions of you, conform to social desirability standards, or even to deceive others (Schmit, Ryan, Stierwalt, & Powell, 1995).

More specifically, Sedikides (1993) proposed that when confronted with a self-evaluation or report, individuals will either be motivated to obtain an accurate picture of them self in order to reduce uncertainty about their abilities, enhance their self evaluation in order to protect themselves from negative information, or to protect their pre-existing self-conceptions. The author found that when participants had to select questions that

they would ask themselves in order to determine if they possessed a certain trait they selected items that would allow them to focus on their positive attributes and protect themselves from negative attributes. When thinking about self-report EI, this study shows us that a person is likely to answer in a manner that will put "the best foot forward" or be self-enhancing.

Similar to the findings of Sedikides (1993), Paulhus and John (1998) also report that tendencies toward self-enhancement are present in self-report measures. These tendencies are not meant to be outright lies, but signal a lack of awareness on the part of the respondent (Matthews et al., 2002). Given the conscious and unconscious nature of the distortions on self-reports it is important to look at other methods for gathering EI information. One such method is to get ratings from other sources.

The ECI, which utilizes self-reports, is subject to these response biases just as a self-report personality measure or any other self-report measure would be.

Other-Provided Ratings

One method for compensating for the flaws with self-reports is to gather ratings from acquaintances. For example, Kolar, Funder, and Colvin (1996) found that when assessing personality, ratings provided by a knowledgeable acquaintance were slightly more predictive of behavioral criteria than were self provided ratings of personality, and when two or more acquaintances provided ratings the ratings were significantly more predictive of behavioral criteria than a self rating. A broader review of this literature (Funder, 2001) has found that observer evaluations of personality are not only similar to self-report measures of personality, but that they might be more valid.

ECI

Given the benefit of other-provided ratings, several EI measures have been developed to incorporate this type of rating. Although many of the mixed model measures use only self reports, several measures such as the Emotional Competence Inventory (ECI) and the BarOn EQ-360 also make use of the other ratings (e.g., supervisor, acquaintance, or peer). In fact, when compared, self and other ratings on the ECI have significant, but low correlations ranging from .14 to .43 (Wolff, 2005). This discrepancy between the self and other's ratings could be accounted for by self-report distortions such as self-enhancement or self-presentation. Researchers have recognized the problem associated with self-reports and the ECI is not considered to be valid unless other-ratings are used in conjunction with the self ratings (Wolff, 2005). Therefore, the measure is not to be used without obtaining both self and other ratings of emotional intelligence. More specifically, multiple other ratings are required to provide a clear picture of a person's level of emotional intelligence.

Interview

Acquaintance ratings have proven to be useful within the personality literature and within the literature on mixed-model measures of EI. However, the use of acquaintance ratings is not appropriate in the context of the ability model of EI (just like acquaintance ratings are not appropriate on other types of ability measures). For example, it does not make much sense to ask someone how an acquaintance would interpret the emotion in the face of a third person. Nonetheless, there are other means of assessing abilities that do not involve asking a person to respond to a written question.

27

For example, assessment centers employ a wide variety of methods (e.g., interviews, simulations) that can be used to assess abilities.

There are a variety of reasons why the selection interview is a promising approach for the assessment of EI. First, the selection interview remains the most popular means of assessing job candidates (Posthuma, Morgeson, & Campion, 2002). Thus, practitioners may be able to include an assessment of EI within the interviews they are already conducting rather than spending the time and money on an additional selection measure. Second, research indicates that interviewers currently attempt to assess cognitive ability and personality traits within the selection interview (Huffcutt, Conway, Roth, & Stone, 2001), and thus the assessment of EI (regardless of how it is conceptualized) doesn't appear to be that much of a stretch. Third, research indicates that not only is it possible to accurately assess personality within a selection interview, but this methodology may be more resistant to faking effects (Van Iddekinge, Raymark, & Roth, 2005).

Identifying the selection interview as a possible means of assessing EI is only the starting point, however. In fact, there are many different ways in which to structure an interview. Campion, Palmer, and Campion (1997) reported that there are multiple components to an interview that can be broken into two major categories: the content of the interview and the evaluation of the responses. The content of the interview can focus on assessing critical incidents that the interviewee may experience on the job, personality traits, common questions such as "Tell me about yourself", or even items that the interviewer sees as being intuitively related to the job. In this study, a critical incident

approach will be taken such that items will assess responses to situations that the interviewee may encounter while on the job.

The evaluation component discussed by Campion et al. (1997) is of utmost importance when developing an interview. The interview, as a form of other-generated ratings, must minimize response biases if it is to provide valuable information. Each item's response should be rated before moving on to the next question. If ratings are assigned after all questions have been asked, the score may not be as accurate because the rater may be biased by the responses as a whole. This practice of rating each item will increase interrater and test-retest reliability. Another component in evaluating interviews that may lead to more objective ratings is an anchored rating scale that has very detailed anchors describing possible interviewee responses. Additionally, detailed notes should be taken during the interview in order to help the interviewer organize their thoughts and multiple interviewers should be in order to increase accuracy of the ratings (provided they are the same throughout all interviews). Finally, interviewers should be trained in interview techniques so that they can be as objective and accurate as possible.

Given these evaluation guidelines set forth by Campion et al. (1997), the interview used in this study will utilize a trained interviewer throughout the study and recordings will be made of the interviewee's responses. Although only one interviewer will be used, a second interviewer will review a subset of the interviews in order to assess interrater reliability. Additionally, all items will be rated using a detailed anchored rating scale and will be rated prior to moving on to the next question.

As evidenced by the need to develop an interview for this study, few researchers have examined the utility of an interview measuring emotional intelligence. Although such an interview does not appear to exist in the published literature, the relationship between emotional intelligence and interview performance has been examined by several researchers. For example, Sue-Chan and Latham (2004) examined the relationship among cognitive ability, performance on a situational interview assessing teamwork behavior, and emotional intelligence assessed using a team-level measure (WEIP). They found that the situational interview and emotional intelligence scores were significantly related (r=.31). It was also found that the situational interview was able to predict emotional intelligence scores incrementally above cognitive ability. Given these results the authors call for future researchers to examine the potential for the situational interview to act as a measure of emotional intelligence. As yet, an extensive literature search failed to uncover a single published article detailing an interview that specifically measures emotional intelligence. Given the lack of interviews developed specifically to measure emotional intelligence (Sue-Chan & Latham, 2004) the current study will be addressing an important void in this literature.

<div align="center">Current Study</div>

It can be concluded from the literature and findings reported in this review that emotional intelligence is a complex construct that still needs more examination. As Murphy (2006) states "there are some reasons for optimism about the future of emotional intelligence, but there is still a long way to go before this concept will come close to living up to the hype (p.346)." Therefore, this study will aim to address two issues. First,

some of the definitional concerns that currently exist in the literature will be addressed by comparing the ability and mixed model conceptualization of emotional intelligence. Specifically, this study will compare scores on these two conceptualizations of EI, and also examine the criterion-related validity of these two approaches.

The second purpose is to examine the impact of the methodology of assessment on EI scores. More specifically, this study will examine the correspondence of EI scores as assessed via traditional self-report measures, via acquaintance ratings of EI, and via an interview specifically designed to assess EI. In addition, this study will contrast the criterion-related validities of these various approaches to EI assessment while controlling for cognitive ability assessed by college GPA and SAT and/or ACT scores. Finally, the components of the EI measures will be examined to determine if they are differentially related to supervisor and subordinate ratings of performance.

Given these purposes, the first part of this study will consist of developing the EI Interview. This interview will be based on the ability model of emotional intelligence, similar to the MSCEIT. Each of the four facets of the ability model will be covered in the interview, thus making the MSCEIT as starting point for development of the interview. After the development of the EI Interview, participants will be recruited from a University Resident Hall Assistant population to complete the study.

<u>Hypotheses</u>

Based on the extensive past research surrounding the relationship among ability and mixed model measures, we expect to find similar results in this study. More specifically, we are predicting positive correlations among the MSCEIT, ECI (self and

31

other ratings), and EI interview. Past research has shown that the MSCEIT is

significantly related to mixed model measures with correlations ranging from .12 to .29

(Mayer et al., 2002). Since the EI Interview will be based on the ability model definition,

it is also likely that the correlation between the MSCEIT and interview will be positive.

Because mixed and ability model measures are typically positively related, we expect the

EI Interview, based on the ability model, and ECI (self and other ratings), based on the

mixed model, to be positively related as well. Therefore,

>*Hypothesis 1:* There will be positive correlations between the MSCEIT and ECI
>(self and other ratings) and the EI Interview.

Although the past research suggests that the correlations among the measures will

be positive, there is little evidence regarding the differing strengths of these correlations.

Therefore, we are positing two potential sets of relationships among the measures. One

potential finding is that the MSCEIT and interview are related to one another more

strongly than they are related with the ECI ratings because they are both measures of the

ability model of EI. Following this logic, the ECI self and other ratings will be more

highly correlated with each other than with the MSCEIT and the Interview ratings

because they are both measures of the mixed model of EI.

The second explanation is the MSCEIT and ECI self ratings are more highly

correlated with one another than with the ECI other of Interview ratings because they are

both self-provided ratings. Using this logic, the ECI other ratings and Interview ratings

will be more highly correlated with each other than with the MSCEIT or ECI self ratings

because they are both other-provided ratings of EI. This leads to the following research

question:

Research question 1: Will the interrelations between the various measures of EI be better explained by underlying conceptualization of EI (Managing Emotions, Perceiving Emotions, Using Emotions, and Understanding Emotions) or by methods used to capture emotional intelligence (self versus other-provided ratings)?

The second set of relationships that this study will examine is between the EI measures and job performance. Past research has shown that both ability and mixed models of emotional intelligence have been related to performance. More specifically, the MEIS (precursor to MSCEIT) and ECI have been shown to have a moderate operational validity with performance (r=.19 and r=.23 respectively; Van Rooy & Viswesvaran, 2004). Finally, although there is no prior research surrounding the EI Interview, based on the relationships of existing measures of emotional intelligence we expect it to have a positive relationship with performance. Therefore:

Hypothesis 2: Scores on the MSCEIT, ECI (self and other ratings), and EI Interview will be positively related to scores on the performance measure.

Again, we are predicting the EI measures to predict performance differentially. Much like the differential relationships among the measures of EI, the differential relationship of the EI measures have been largely unstudied. There is some evidence that other-provided ratings offer a truer picture of a person than self-provided ratings, however. Therefore, it is possible that the ECI other ratings will be more highly correlated with performance than the MSCEIT and ECI self ratings. This relationship may exist because the ECI other are other-provided ratings and may be less biased, just as the performance measures are other-provided ratings and are presumably less biased than a self rating. Another explanation for this proposed relationship is that the ECI other ratings will be more highly related to the performance measures than all other EI

measures (MSCEIT, ECI self, and Interview) because this is the only measure that completely removes the option for the self to influence the ratings. This objective rating of EI may be more suited to predict the objective performance ratings. Both options lead to the same conclusion, that the ECI other ratings will provide the highest validity in predicting performance. Therefore, based on prior research (e.g., Kolar et al., 1996):

> *Hypothesis 3*: ECI other ratings will have the highest correlation with performance of the EI measures.

Although it is likely that the interview, another source of other-provided ratings, will provide the next highest correlation with performance, a formal hypothesis is not possible because there is no existing information on the interview.

Each of these potential relationships and hypotheses will be examined as part of this study.

CHAPTER TWO

METHODS

Participants

Participants consisted of 50 Residence Hall Assistants (RAs) from three
southeastern universities; four participants were eliminated from the analyses after
multivariate outlier analyses were conducted. A total of 393 RAs were identified through
University Housing at their respective schools and were invited to participate in the
study, resulting in a response rate of 12.7%. Of the 46 RAs included in the final analyses
all were at least sophomores in class standing at their university and ranged in age from
18 to 23 with a mean age of 19.7-years-old. The participating RAs were 63% female and
74% Caucasian. Seventy-eight percent of participating RAs were completing their first
year as an RA, the remaining 22% were in their second year as an RA. Finally, 65% of
participating RAs reported that they did not feel (Strongly Disagree or Disagree) that they
had to participate in this study due to the expectations of their Housing office and it's
staff.

Each RA was also asked to identify up to 3 friends, who did not live on their hall,
that they had known at least six months, and attended their respective university to
participate in the study. A total of 51 friends completed the ECI Other.

In an effort to increase the response rate among the RA population, a total of 16
$25 VISA© gift cards were raffled to participating RAs and their friends. Eight of the
gift cards were distributed to RAs and the remaining eight to the RA's friends.

Additionally, a $100 VISA© gift card was raffled off to an RA who completed the study and convinced another RA to complete the study as well.

Due to the low response rate among RAs, a second group of participants was recruited. Psychology students at a mid-sized southeastern university were recruited to participate in this study. These students completed the study as part of a research requirement in a psychology course; therefore they received course credit for their participation and were not eligible for the aforementioned gift cards. In order to qualify for participation in this study, students were required to have held a job at some point in their life. A total of 98 psychology students participated in the study; two participants were eliminated from the analyses after running multivariate outlier analyses. The final 96 participants ranged from 18 to 25-years-old with a mean age of 18.6. Of the 96 participating psychology students, 71% were female and 87% were Caucasian. Participants had been employed in their current or latest position for a mean of 15.3 months, with a range from 1 to 84 months. At the time of their participation, 22% of participants were currently employed; the remaining 78% of the participants were not currently employed.

Each participating Psychology student was also asked to identify up to 3 friends, that they had known at least six months and attended their university to participate in the study. A total of 144 friends completed the ECI Other.

<u>Measures</u>

RA Demographics – This measure consisted of five items assessing age, gender, race, how many years the participant had been an RA and whether or not they felt they

had to participate in this study. Additionally, the participant's name was collected to match the RA's future responses with this measure. The name and e-mail address of three friends the participant had known for at least six months were gathered for later use in this study. (See Appendix A)

Psychology Demographics – This measure consisted of items assessing age, gender, race, whether or not the participant was currently employed, their current or most recent job title and length of time in that position. Additionally, the participant's name was collected to match the participant's future responses with this measure. The name and e-mail address of three friends the participant had known for at least six months was gathered for later use in this study. (See Appendix B)

Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) – This measure consisted of 141 items assessing four branches of emotional intelligence: perceiving emotions, facilitating thought, understanding emotions, and managing emotions. The test takes approximately 30 to 45 minutes to complete and was administered online.

The measure consisted of 8 sections and two sections were used to measure each branch. Five of the sections relied on a 5-point Likert-type scale, two scales required the respondent to select the best answer, and the final section used a Likert-type scale consisting of faces (e.g., smiling, frowning, etc). Based on these 8 sections, 2 area scores were computed. The experiential area score was comprised of the perceiving emotions and facilitating thought branches and the strategic area score was comprised of the understanding emotions and managing emotions branches. In addition to these area scores, a score was provided for each branch of emotional intelligence as well as a score

for each of the eight sections of the MSCEIT. Scores on each of these were calculated using general scoring and expert scoring in the User's Manual. General scoring was based on a normative sample of 5000, and expert scoring was determined by a group of emotion subject matter experts. The Manual reports a correlation between the general and expert scoring techniques of .90. Given the similarity between the general and expert scores and their reliabilities only the reliabilities for the general scores are presented here. The overall reliability for the MSCEIT was .93 and the area score reliabilities were .90 (experiential) and .88 (strategic). The four branch reliabilities ranged from .79 (facilitating thought) to .91 (perceiving emotions). The eight subscales have reliabilities ranging from .64 (facilitating thought: facilitation) to .88 (perceiving emotions: pictures; Mayer et al., 2002).

Emotional Competence Inventory (ECI) – This measure was developed by Boyatzis, Goleman, and the Hay Group (2002). The ECI was completed online and took less than 20 minutes. The measure consisted of 72 items that measured 18 competencies. All items were answered on a 5-point scale from Never (1) to Consistently (5) with a sixth option of "Don't Know."   The ECI, a 360° tool, incorporated both self and other ratings and was scored using an algorithm developed for this measure. As reported in the Technical Manual, the correlation between self and other ratings ranged from .14 (adaptability) to .43 (emotional self-control). The overall reliability for self ratings was .63 with a range from .47 (conflict management) to .76 (inspirational leadership). The overall average alpha for "other" ratings on the ECI was .78, with a range from .68 (transparency competency) to .87 (emotional self awareness; Wolff, 2005).

An additional item was added to this measure to assess confidence. More specifically, participants were asked how confident they were in their ability to rate their friend. Responses were collected on a five-point scale from "Not at all confident" to "Very confident".

Personality Measure – This measure consisted of 5 scales with 10 items per scale and was obtained from the International Personality Item Pool. The scales included in this measure were Conscientiousness, Openness to Experience, Extraversion, Agreeableness, and Neuroticism. The overall coefficient alpha for the measure is .82 with individual scale alphas ranging from .77 (Agreeableness) to .86 (Neuroticism, Extraversion). Responses were collected on a five-point scale from "Very Inaccurate" to "Very Accurate".

RA EI Interview – This interview, based on the ability model of emotional intelligence, consisted of 8 questions and was developed specifically for this study. Sixteen items were initially written with 4 questions per branch of emotional intelligence (perceiving emotions, facilitating thought, understanding emotions, and managing emotions). The items were designed to mimic the items found in the MSCEIT. To aid in the interview development, subject matter experts (SMEs) were consulted. The SMEs consisted of eight I-O psychology doctoral students. Each SME had completed at least one course that contained information on the emotional intelligence construct and were trained in test development practices. The SME were asked to assign the questions to the proper branch. Based on this task, two items were retained for each branch of emotional intelligence. For the first branch, perceiving emotions, seven of the eight SME's agreed

on one item and six of the eight SMEs agreed on the second item. The second and fourth branches, facilitating thought and managing emotions, led to slightly less agreement with five of the eight SMEs agreeing on the two selected items for each branch. Finally, the two items represented the understanding emotions branch; six of the eight SMEs agreed on each item.

The same pool of subject matter experts were then enlisted in developing appropriate responses for each of the final eight questions. For the first branch, using a list of common emotions from Wikipedia.com, five SMEs ranked the relevance of each emotion for the two branch items from 0 (not at all relevant) to 4 (very relevant). Participants were asked to provide any and all emotions that come to mind. The participant's 3 most relevant emotions, according to SME reports, were retained and participants received points for each emotion equal to the relevance score for that emotion. For example, if a participant reported happiness as an emotion and the SME assigned relevance of happiness to the situation was a 3, the participant received 3 points. The scores within each item of the first branch were averaged such that scores for each item within the first branch ranged from 0 to 4. For the remaining three branches, SME's were surveyed to determine a range of acceptable responses. For each segment of the acceptable response that the participant provided, they received 1 point, thus creating the possibility for a range of scores from 0 (no appropriate segments were given as part of the response) to 4 (all segments were suggested as part of the response) on the remaining items.

Given the scoring procedure outlined, participants were able to receive a score anywhere from 0 to 32 on the interview, where a high score indicated that the participant provided emotionally intelligent responses. The interview took approximately 10 to 30 minutes and was conducted by a single graduate student. (See Appendix C)

Psychology Student EI Interview – This interview, based on the ability model of emotional intelligence, consisted of 8 questions and was developed specifically for this study. There were a total of two items to measure each branch of emotional intelligence (perceiving emotions, facilitating thought, understanding emotions, and managing emotions). The situations developed for the RA EI Interview were modified to reflect a general work environment. Scoring for these items mimicked the scoring for the RA EI Interview. (See Appendix D)

RA Job Performance – Performance was measured with an existing measure used by University Housing in their evaluation of RA performance at the end of each term. This measure was completed by the RA's direct supervisor and consisted of 31 items assessing operations of residence hall floor and apartment area, residence education, administrative functions, counseling function, personal/professional development, and duty and crisis management. Each area was assessed using a 5-point scale ranging from "consistently does not meet expectations" to "substantially exceeds expectations." Supervisor comments were also gathered for each of these areas. A sample item assessing counseling function was "Resolve conflicts between residents". Each area's scores were averaged to provide 6 area scores. These scores were then added to provide an overall performance rating ranging from 6 to 30. (See Appendix E)

Psychology Student Job Performance – This measure was designed to mimic the 6 concentration areas measured in the RA performance measure. Therefore this measure consisted of six items that assessed the same six areas seen in the RA measure, one item per area. These items were assessed using a 5-point Likert-type scale from Strongly Disagree to Strongly Agree. These scores were added together to provide an overall performance rating ranging from 6 to 30. There were four additional items allowing the supervisor to assess overall performance, greatest strength, greatest area for improvement, and provide additional comments. (See Appendix F)

Procedure

Residence Hall Assistants

All Residence Hall Assistants (RAs) received a letter from their university's respective Executive Director of Housing and the Director of Residential Life asking RA's to participate in this study. The letter also outlined the incentive raffle that all participants who completed the study were entered into after data collection was complete (See Appendix G). Following the distribution of this letter, RA's received an e-mail (See Appendix H) from the researchers asking for participation, explaining the study, and providing the link to the informational letter (See Appendix I) and demographics measure. After an RA completed the demographics measure they received another e-mail providing the links to the MSCEIT and ECI (See Appendix J). When these measures were completed, the RA received a final e-mail asking and were asked to sign up for an interview time (See Appendix K). RA's then completed the interview and personality measure at their assigned time. RAs at the one university also signed a

consent form granting the researchers access to the RA's cumulative GPA and SAT and/or ACT scores as well as their performance data (See Appendix L). RAs at the remaining two institutions were simply asked to provide their GPA, SAT, and ACT scores as part of the Demographics measure. Performance data was not available from the remaining two participating institutions. Following the completion of the interview, RA participation was complete.

The "other" or friends ratings on the ECI Other were collected after the RA completed the demographic measure. The name and e-mail address of three of the RAs friends was identified through the demographics measure. The friends received an e-mail (See Appendix M) describing the study and providing a link to the informational letter (See Appendix N) and ECI Other. After the friends completed the ECI Other, their participation in the study was complete.

After all data was collected from the RAs and friends, a debriefing statement was sent to all participants via e-mail (See Appendix O). All raffle winners were contacted at this point and raffle prizes were distributed at the participant's convenience.

University Housing collected performance data at the end of each term in which the study was conducted. The responses were forwarded to the researchers as soon as possible after this evaluation took place. Again, performance data was only available from one participating institution.

<center>Psychology Student Pool</center>

All students in the Psychology student subject pool were able to sign up for the study through a secure online research website that contained the informational letter

<center>43</center>

(Appendix P). When students signed up to participate in the study they immediately

chose a time for the interview. After signing up to participate in the study students

received an e-mail providing the link to the demographics measure, the MSCEIT, and the

ECI (See Appendix Q). Students were also reminded that all three measures must be

completed prior to their interview time. Participants then completed the interview and

personality measure and were asked to sign a consent form granting the researchers

access to the participant's cumulative GPA and SAT and/or ACT scores and asking for

permission to contact their most recent supervisor (Appendix R). Following the

completion of the interview, Psychology student participation was complete.

The "other" or friends ratings on the ECI Other were collected after the

Psychology student completed the demographic measure. The names and e-mail

addresses of three of the participant's friends were identified through the demographics

measure. The friends received an e-mail (See Appendix S) describing the study and

providing a link to the informational letter (See Appendix T) and ECI Other. After the

friends completed the ECI Other, their participation in the study was complete.

After all data was collected from the participants and friends, a debriefing

statement was sent to all participants via e-mail (See Appendix U).

Participant's supervisors were then contacted via phone and/or e-mail to obtain

performance ratings (See Appendix V). Participating supervisors were given the

opportunity to read an informational letter about the study and their participation (See

Appendix W).

Analysis

The current study examined the two hypotheses stated earlier as well as correlational data provided by the measures. The first step in analysis was to examine the reliability of the interview measure developed for this study. Based on this analysis, the interview questions to be used in the hypothesis testing were decided upon. Following this initial examination, simple frequency analyses for the demographic items, MSCEIT, ECI, and performance measures were conducted in order to identify potential outliers and to report the range on each measure.

The next step was to correlate the demographic data with the scores on each of the EI measures. This allowed us to determine whether or not race, gender, or age played a role in emotional intelligence in this sample.

Intercorrelations among EI scores were completed next. These intercorrelations served as a preliminary test of the hypotheses. Based on past research (Mayer et al., 2002; Wolff, 2005), Hypothesis 1 predicted a positive and significant correlation among the three EI measures. In addition to examining the correlations among the overall scores on each measure, the correlations among the subscales of each emotional intelligence measure were examined. Particular attention was paid to the correlations of the interview subscales and the branch scores of the MSCEIT and cluster scores on the ECI. As suggested in MacCann, Matthews, Zeidner, and Roberts (2003), moderate to high correlations were expected between the ECI self-awareness cluster and MSCEIT perceiving emotions branch, the social awareness cluster and the facilitating thought branch, the self-management cluster, and the understanding emotions branch, and the

45

social skills cluster and managing emotions branch. It was unclear whether the relationship between the MSCEIT branches and ECI clusters would be stronger for the self or other reports, but it was expected that they would be stronger between the MSCEIT and self reports on the ECI because both sets of data were collected from the RA as opposed to another rater (e.g., ECI other ratings and Interview ratings).

The relationships between the MSCEIT and ECI were not the only relationships that were examined however. We were also interested in the relationships among the other measures. More specifically, several possibilities were posited in the hypothesis section as to the strength of different relationships. Therefore, intercorrelations were examined to determine if the MSCEIT and interview were related to one another more strongly than they were related to the ECI ratings and if ECI self and other ratings were more highly correlated with each other than with the MSCEIT and the Interview.

Additionally, the intercorrelations between the MSCEIT and ECI self ratings were examined to determine if they were more highly correlated with one another than with the ECI other or Interview ratings. The intercorrelations between the ECI other ratings and Interview ratings were examined in relation to the intercorrelations between the ECI other and MSCEIT or ECI self ratings.

The second hypothesis was tested using simple and hierarchical regressions and correlations. Based on past research, it was expected that emotional intelligence would significantly predict job performance (Van Rooy & Viswesvaran, 2004). First, correlations were run among the scores on the EI measures and the each of the performance scores (supervisor and resident). This provided a general understanding of

46

the relationship between emotional intelligence and performance. In order to provide a more specific look at the predictive ability of EI, hierarchical regressions were conducted for the performance ratings. For each performance score, the demographic data was first entered into a regression predicting performance. Any demographic variables significantly predicting performance were retained in subsequent regressions. If none of the demographic data significantly predicted performance, a simple regression rather than hierarchical regression was used to test the second hypothesis. Each EI measure was entered into a separate regression predicting performance. The ECI self and other ratings were entered into separate regression equations since self and other ratings have been shown to have a relatively low correlation with each other (Wolff, 2005).

Ancillary regressions were run using the subscale scores on each of the EI measures to predict job performance. Although overall scores were provided for each of the EI measures, it is possible that certain subscales would predict performance differently. These regressions allowed such relationships to be identified.

Structural equation modeling was used to test Research Question 1. A full model of freely correlated traits (Managing Emotions, Perceiving, Emotions, Understanding Emotions, and Using Emotions) and freely correlated methods (ECI Self, ECI Other, MSCEIT, Interview) was compared to a variety of other models. These various models were compared to the full model using χ^2 difference test and were examined for changes in fit.

CHAPTER THREE

RESULTS

The current study used two different samples to assess the relations between the various methodologies and conceptualizations of emotional intelligence. Since these two samples were substantively different from one another (e.g., the RA sample was older and was more homogenous in terms of their work responsibilities as compared to the student sample) it was decided to conduct the analyses on both samples individually rather than combine the samples.

<u>Descriptive Statistics</u>

Simple descriptive statistics were first computed to ensure that each of the variables was normally distributed (see Tables 3 and 4). For the interview branches, the possible scores ranged from 0 to 4. In the psychology sample, the lowest mean was .72 (Understanding Emotions) and the highest mean was 2.39 (Perceiving Emotions). Similarly, in the RA sample the lowest mean was 1.21 (Understanding Emotions) and the highest mean was 2.72 (Perceiving Emotions). To better understand whether a mean score difference between the samples was present, independent samples t-tests were run for each of the interview branches. In each case where a significant effect is noted, the RA sample mean was higher than the Psychology student sample mean. With equal variances assumed, the Using Emotions ($t = -2.31$), Understanding Emotions ($t = -6.57$), and Perceiving Emotions ($t = -2.08$) branches all showed significant differences ($p<.05$) in mean scores between the samples. The final branch, Managing Emotions did not show a significant mean difference between samples ($t = -1.14$, $p = .25$). Additionally, when

an independent samples t-test was run for the Interview as a whole, there was a significant difference between groups in the mean score ($t = -3.97$).

The next scale to be examined was the MSCEIT. The scores obtained from the test publisher ranged from 0 to 1. In the Psychology sample, the branch means ranged from .44 (Managing Emotions) to .61 (Understanding Emotions). The branch means in the RA sample ranged from .49 (Using Emotions) to .66 (Understanding Emotions). Again to provide a better understanding of how the two samples were similar or different, independent samples t-tests were utilized. Assuming equal variances, the Perceiving Emotions ($t = .25$) and Managing Emotions ($t = -1.64$) branches did not show a significant difference between samples. The mean score differences for the Understanding Emotions branch was statistically significant ($t = -2.54$). Finally, for the Using Emotions branch, the Levene's test for equality of variances was significant and therefore the t-test for equal variances not assumed was used. In this case, the means score differences for this branch were significant ($t = -2.76$). Again, for the overall measure, the Levene's test was significant and equal variances were not assumed. The results showed a significant mean difference in total MSCEIT scores between samples ($t = -2.63$).

The means for the ECI Self and Other were examined next. In both measures, the range for the Self Awareness and Social Awareness clusters was 0 to 15. For the Psychology sample, the ECI Self means were 11.99 (Self Awareness) and 12.02 (Social Awareness). In the RA sample they were 12.14 (Self Awareness) and 11.67 (Social Awareness). The range for the Self Management and Relationship Management clusters

was 0 to 30. The means in the Psychology sample for the ECI Self ranged were 22.30

(Self Management) and 21.21 (Relationship Management). In the RA sample, the means

ranged were 22.73 (Self Management) and 21.94 (Relationship Management).

Independent sample t-tests were again conducted for the individual clusters and the

measure as a whole. There were no significant mean differences between the samples for

ECI Self.

In the Psychology sample the means for the ECI Other were 12.10 (Self

Awareness) and 11.74 (Social Awareness) and were 12.54 (Self Awareness) and 12.51

(Social Awareness) in the RA sample. Again, the total possible range for these clusters

was 0 to 15. For the two clusters with a possible range from 0 to 30, the means were

22.83 (Self Management) and 22.18 (Relationship Management) in the Psychology

sample and 22.73 (Self Management) and 21.94 (Relationship Management) in the RA

sample. Finally, equal variances were assumed and independent sample t-tests were run

for the clusters and overall measure. Self Management ($t = -2.77$) and Relationship

Management ($t = -2.32$) had significant mean score differences between the samples, but

Self Awareness ($t = -1.60$) and Social Awareness ($t = -1.84$) did not. The overall ECI

Other test of mean differences was significant ($t = -2.49$, $p=.01$). It is interesting to note

that the friends of the participants in both samples reported a high degree of confidence in

the ratings they provided in the ECI Other.

Finally, the means for the dependent variable of performance were relatively high,

but still reflected a somewhat wide range. Performance in both the Psychology and RA

samples was based on six items and possible scores ranged from 6 to 30. The mean for

the Psychology sample was 27 with a range from 22 to 31. The RA sample had a slightly

lower mean of 21.33 with a range from 12 to 28.

In conclusion, each of the measures utilized in this study showed adequate range

and minimal skew, therefore, restriction was not a concern in further analyses. However,

the mean differences across samples supported the decision to conduct the analyses

separately for each sample. In the following section, the background history of the

participants for both samples will be discussed.

<u>Analyses of Scales</u>

After this initial assessment of participants' profiles, the reliability for the

Interview, MSCEIT, ECI Self, and ECI Other were examined. For this set of analyses

alphas were calculated based on the four branch scores for each measure. Because the

branch scores and not item scores were used to calculate the coefficient alphas, the

expectations are lower for the resulting alpha.

The first measure to be examined was the Interview. Because this measure was

not pilot tested, the relationship between the two items making up each branch was

examined. Although the correlations between the items in both samples were positive for

the Perceiving, Using, and Understanding Emotions branches, the correlation between the

two items in the Managing Emotions branch was negative in the RA sample. Given this

negative correlation, one item was dropped and the final interview consisted of 7 items,

with only one item comprising the Managing Emotions branch. The coefficient alpha for

this measure was .59 in the RA sample and .43 in the Psychology sample. Because this

measure was developed for this study there is no prior research with which to compare

these alphas. Additionally, although the alpha-if-item-deleted statistics showed that the measure could be marginally improved by deleting one of the branches, this was not done because the branches in the Interview were designed to align with the branches/clusters of the other EI measures. Furthermore all remaining analyses hinge on this 4-branch structure.

The MSCEIT was the next scale to be examined. More specifically, the alpha was .65 in the Psychology sample and -.07 in the RA sample. These findings provide further evidence that the measures were acting differentially in the two samples. Although the alpha-if-item-deleted statistics for both samples indicated that if the Understanding Emotions branch were deleted the alpha level would increase, this was an existing measure and could not be altered for the purposes of this study.

Finally, the remaining measures of EI, the ECI Self and Other, were examined. In this study the ECI Self alpha for the Psychology sample was .82 and was .82 in the RA sample. These alphas are quite high and indicate the measure worked well in both samples. Like the reliabilities for the ECI Self, the ECI Other reliabilities were also quite high. More specifically, in the Psychology sample the alpha was .88 and in the RA sample was .90. Again, the ECI Other clusters were proved to be cohesive.

Finally, the dependent variable of performance was examined. Both performance measures had an alpha of .83 in their respective samples. Like the ECI Self and ECI Other, this measure was functioning quite well in both samples used in this study.

Tests of Hypotheses

Hypothesis 1

Hypothesis 1, which predicted a positive relationship between the measures of

Emotional Intelligence, was tested using correlations. More specifically, the average

correlations among the measures was calculated and then assessed for significance. In

order to calculate the average correlation, the four branch scores within each measure

were averaged to create an overall EI score for each measure of EI. This resulted in four

overall EI scores for each participant (ECI Self, ECI Other, MSCEIT, and Interview).

The correlations between these overall EI scores for each measure were then used to

calculate an average correlation. In the Psychology sample, the average correlation was

.05. Based on a sample size of 96, this average correlation was not significant. The RA

sample also produced a positive, albeit low, average correlation of .03. Again, this was

not significant based on a sample size of 46. Given these nonsignificant relationships,

Hypothesis 1 was not supported.

To provide a more in-depth view of the relationships, the correlations between the

measures were examined (Table 5). More specifically, the ECI Other was positively

related to the ECI Self, MSCEIT, and Interview with correlations ranging from $r = .07$ to

$r = .23$. The Interview was also positively, although non-significantly, related to the ECI

Self and ECI Other ($r = .04$ and $r = .09$ respectively). Although designed to measure the

same concepts, the Interview and MSCEIT did not share a relationship and had a

correlation of $r = .00$. Finally, the MSCEIT was negatively related to the ECI Self with a

correlation of $r = -.14$. In the RA sample three of the six correlations were negative.

These negative relationships existed between the ECI Other and the remaining EI measures. These negative, non-significant, correlations ranged from $r = -.26$ to $r = -.13$. The Interview and ECI Self were positively and significantly related with a correlation of $r = .41$. The remaining two positive correlations were non-significant.

The negative relationships seen among the overall EI correlations suggested that a deeper look into the relationship among the measures was warranted. In order to better understand these negative relationships the correlations among the four branches of each EI measure were calculated next. As previously noted, each of the four clusters for the ECI Self and Other align with the four branches of the MSCEIT and Interview. In these analyses we were interested in whether or not the average correlations for the corresponding clusters/branches (e.g., Self Awareness and Perceiving Emotions) found in the diagonal of the matrix were higher than the non-corresponding branches or off diagonal portions of the matrix. We were also interested in whether or not the diagonal and off diagonal correlations were significantly different using z tests. Although correlations were calculated for both the Psychology and RA samples, to save space only findings from the Psychology student sample will be discussed here. The correlations for the RA sample can be found in Tables 6 through 11.

We first examined the relationship between the ECI Self and the ECI Other (Table 6). An average correlation of .22 was calculated for the diagonal and was significant based on sample size. The off diagonal average was only .14 and was not significant. These correlations were not statistically significantly different from one another. More specifically, three correlations were positive and significant with

correlations ranging from $r = .28$ to $r = .36$. The remainder of the correlations, with one exception was positive although non-significant. The relationship between Relationship Management and Social Awareness, the exception, was negative ($r = -.01$).

Next, the relationships among the ECI Self and MSCEIT branches were assessed (Table 7). Although we expect the diagonal average correlation to be higher than the off diagonal, this was not the case in this comparison. Both average correlations were non-significant and were -.06. Again, they were not significantly different from one another. Unlike the relationships between the ECI Self and Other, many of the relationships between the ECI Self and MSCEIT were negative. Two of the negative relationships, Understanding Emotions-Self Awareness and Understanding Emotions-Relationship Management, were significant and negative ($r = -.24$ and $r = -.25$ respectively). There were four positive, although non-significant, relationships ranging from $r = .00$ (Perceiving Emotions-Self Awareness) to $r = .14$ (Using Emotions-Self Awareness).

The relationships were quite different for the MSCEIT and ECI Other branches (Table 8). The average correlations for these measures were again non-significant. The diagonal average was .07 and the off diagonal was .05. Once again, the correlations were not significantly different. In fact none of the correlations were significant and only four of the correlations were negative. More specifically, the negative correlations ranged from -.14 (Understanding Emotions-Relationship Management) to -.02 (Managing Emotions-Social Awareness). It is interesting to note that three of the four correlations for Understanding Emotions were negative; the only positive correlation for that branch was with Social Awareness ($r = .11$). The remaining positive correlations ranged from

r = .00 (Perceiving Emotions-Relationship Management) to *r* = .17 (Using Emotions-Relationship Management).

With the introduction of the Interview to this study we were highly interested in determining its relationship not only with a similar Ability Model measure, the MSCEIT, but with mixed model measures as well (ECI Self and Other). Given that the interview was developed with the MSCEIT as a basis, we expected the two measures to be positively correlated. The relationship between the Interview and the MSCEIT was examined first (Table 9). The average diagonal correlation was .08 and the off diagonal was -.02. Both averages were non-significant and were not significantly different. In fact, nine of the 16 correlations were negative and all of the correlations were small and non-significant. The correlations ranged from *r* = -.08 to *r* = .15.

The Interview also shared several negative relationships with the ECI Self and ECI Other (Tables 10 and 11). Again, all four average correlations were non-significant. The diagonal average correlation for the ECI Self and Interview was -.03 and the off diagonal was .02. These correlations were not significantly different. The diagonal average correlation for the ECI Other and Interview was also low at .02 and the off diagonal was .06, these correlations were not significantly different. Not surprisingly, there were no significant correlations between the Interview and the ECI Self or the ECI Other.

In the case of the ECI Self (Table 10), six of the 16 correlations were negative and ranged from *r* = -.12 (Social Awareness-Perceiving Emotions) to *r* = -.02 (Social Awareness-Managing Emotions). Positive correlations between the ECI Self and

Interview branches ranged from $r = .02$ (Self Management-Managing Emotions) to $r = .18$ (Self Awareness-Managing Emotions). It is interesting to note that three of the four correlations between the ECI Self Social Awareness branch and the Interview branches were negative.

The ECI Other, much like the ECI Self, has several non-significant negative correlations with the Interview branches. There are four negative relationships ranging from $r = -.07$ (Relationship Management-Managing Emotions) to $r = -.01$ (Social Awareness-Managing Emotions). The positive relationships between the ECI Other and Interview range from $r = .01$ (Understanding Emotions-Relationship Management) to $r = .14$ (Relationship management-Perceiving Emotions). See Table 11 for more information on the relationships between the Interview and ECI Other branches.

As shown by the results presented here, the relationships among the measures of EI used in this study are not clear-cut as would be suggested by the two conceptualizations (Ability and Mixed-Model) found in the literature. This brings about the question as to whether or not the conceptualizations provide a strong mechanism for categorizing EI measures.

<center>Research Question 1</center>

Based on the findings of Hypothesis 1 and the use of structural equation modeling we were able to address the first research question that sought to determine if interrelations between measures of EI would be better explained by EI conceptualizations (Managing, Perceiving, Using, and Understanding Emotions) or methodologies (Interview, ECI Self, ECI Other, MSCEIT). Due to the complexity of the model, these

analyses were only run using the Psychology sample, which was much larger than the RA sample.

In order to determine whether the conceptualizations (traits) or methodologies were better able to explain the interrelations a multi-trait multi-method analysis was run. Several models were run and χ^2 differences among the models were computed. The first model run was the full model with freely correlated traits and freely correlated methods. The fit for this model was quite good. The full model had a χ^2 of 85.96 (df = 77). Additionally, the SRMR was .081, the CFI was .998, and the RMSEA was .039. Each of these values was within the bounds of acceptability. When the standardized solution was examined further, it was determined that the factor loadings for the conceptualizations were much lower than for the method factors.

A second model was run with freely correlated methods and no traits. The model had a χ^2 of 121.29 (df = 98) and fit indices that were moderately good. More specifically, the SRMR (.076), CFI (.946), and RMSEA (.056) were average. This model was then compared to the full model by calculating the difference in χ^2 and degrees of freedom. The χ^2 difference was 35.33 and the difference in degrees of freedom was 21. This difference was significant ($p<.05$) based on the Chi-Square table. Additionally, the fit was harmed by the removal of the trait factors. This harm and significant χ^2 difference suggests that the trait factors, although weak, are important to the model. The low trait factor loadings provide evidence that the method factors may be driving the data rather than the conceptualizations. More specifically, the average variance extracted from the indicators was calculated by dividing the sum of the squared factor loadings by

four (number of indicators in each factor). Ideally we would like to see numbers close to 1 for the variance extracted from the traits factors and much smaller numbers for the method factors. This type of finding would indicate that the construct rather than the measures used to assess the construct are driving the model. As suggested by the convergent validity test just described, the opposite was found in this case. The average variance extracted from the indicators by the methods factors ranged from .20 to .70 and from .09 to .15 for the trait factors.

Finally, we were interested in whether or not the method factors contributed significantly to the model. Therefore, the full model was compared to a model with no methods and freely correlated traits. The χ^2 difference between the models was 337.30 and was statistically significant ($p<.001$) based on the Chi-Square table. Compared to the full model, the fit of the model containing no methods factors was also greatly harmed by the removal of the method factors. More specifically, the SRMR for the current model was .210 compared to .081 in the full model, the CFI was .545 down from .998 and the RMSEA was .204 compared to .039 in the full model. Again, these findings provide further evidence that the conceptualizations of Emotional Intelligence (Ability vs. Mixed Model) do not drive the data. Instead, the method factors, or measures of Emotional Intelligence drive the relationships in this study.

A secondary part of this research question was to examine whether the method factors (ECI Self, ECI Other, MSCEIT, and Interview) shared positive (or negative) bias. The bias, when squared, is a correlation between two methods where the higher the correlation the stronger the shared bias. It was posited that the ECI Self and MSCEIT

would share a positive bias because these measures consisted of ratings obtained from the self, whereas the ECI Other and Interview would share a positive bias because they consisted of ratings obtained from an outside or "other" source. Using structural equation modeling we were able to determine that rather than the "Self" and "Other" method factors sharing bias, the ECI Self and ECI Other actually shared a significant, albeit low positive bias of .26. More specifically, when squared, the correlation between the methods is only .07. This shared bias can be explained by the fact that these measures contain the same items and are written in a transparent manner, thus indicating that social desirability may be acting here as a common bias in the ratings. The remaining method factors did not share a significant amount of bias. These findings, or lack thereof, may be explained by the small sample in this study. Using a larger sample may produce the expected findings of "Self" and "Other" common biases, but this is not guaranteed.

In conclusion, the data and analyses showed that the measures (ECI Self, ECI Other, MSCEIT, and Interview) were driving the data. Additionally, we determined that only the ECI Self and ECI Other shared bias. Although this research was in part driven by a desire to understand how various measures of EI were related to one another, we were also interested in how EI and performance were related. The following section will discuss that relationship.

Hypothesis 2

A total of 17 supervisor performance evaluations were obtained in the Psychology student sample and 28 supervisor performance evaluations from the RA sample. Although we were not able to obtain performance data for each participant, we were still

interested in examining the relationship between emotional intelligence and job performance as stated in Hypothesis 2. Hypothesis 2 was tested using four regressions in each sample, one regression for each measure of emotional intelligence. Prior to testing Hypothesis 2, however, correlations and ANOVAs were run to determine which, if any, of the control variables (age, gender, race, GPA, SAT, and ACT) were significantly related to job performance. These initial analyses were conducted in an attempt to reduce the total number of predictors that would be used in the hierarchical regressions testing Hypothesis 2 as well as control for differences in cognitive ability as assessed by GPA, SAT, and/or ACT scores. If the control variable had no significant relationship with performance, it was dropped from subsequent analyses.

Correlations were run for each of the continuous variables (Age, GPA, SAT, ACT) to determine their relationship with performance. It was found that none of the continuous variables were significantly related to performance in the Psychology student sample. In the RA sample, Verbal SAT scores significantly predicted performance ($r =$ .58). Additionally, it was found that ACT scores were perfectly correlated with the performance measure, but due to the fact that only two participants had both ACT scores and performance data, ACT scores were not retained as a significant control variable in further analyses.

One-way ANOVAs were run with performance as the dependent variable and Race and Gender as the Predictors. Neither Race nor Gender was able to significantly predict performance in either sample therefore neither variable was retained in further analyses.

Because none of the control variables were significantly related to performance in the psychology student sample, a simple regression for each EI measure was run with performance as the dependent variable and the Overall EI measure score serving as the predictor. The results from these four regressions showed that none of the four EI measures (ECI Self, ECI Other, MSCEIT, or Interview) were able to significantly predict performance. To further investigate the relationships, regressions were run with performance as the dependent variable and the four branches of each measure as the predictors. These follow-up analyses showed that none of the branches within any measure was significantly predictive of performance (See Table 12).

In order to account for the significant Verbal SAT control variable in the RA sample, hierarchical regressions were used rather than simple regressions. In these regressions, performance was again the dependent variable and the Overall EI measure score was the predictor. Since Verbal SAT scores were significantly related to performance in this sample, these scores were entered into the first block in the regression and the EI score was entered into the second block. As with the Psychology student sample, none of the EI measures were able to significantly predict performance. It is interesting to note that although the Verbal SAT scores significantly predicted performance in the hierarchical regressions using the Interview, ECI Self, and MSCEIT branches as predictors, for the regression using the ECI Other, Verbal SAT scores were not significant predictors of performance. Therefore, this regression was re-run without the SAT scores as a simple regression. Again, the ECI Other measure was not able to significantly predict performance of the RAs. As with the Psychology sample, the

62

regressions were re-run with the branches rather than the Overall EI score for each

measure acting as predictors. Again, none of the branches was able to significantly

predict performance in the RA sample (See Table 13).

Although the EI measures were not able to significantly predict performance,

many of the branches were still positively correlated with performance (Tables 14 and

15). More specifically, in the Psychology student sample the ECI Other branches were

positively, although non-significantly, related to performance with correlations ranging

from $r = .14$ to $r = .30$ (Relationship Management and Social Awareness, respectively).

The ECI Self branches were also positively related to performance. In fact, Relationship

Management was significantly correlated to performance ($r = .50$), although this

correlation does not take into account the significant variance accounted for by Verbal

SAT scores. Not all of the MSCEIT and Interview branches were positively related to

performance however. One of the Interview branches, Using Emotions, was negatively

related to performance ($r = -.04$). The remaining three branches were positively,

although non-significantly, related to performance with correlations ranging from $r = .06$

to $r = .19$ (Perceiving Emotions and Managing Emotions, respectively). Finally, three of

the four branches of the MSCEIT were negatively, although non-significantly, related to

performance with correlations ranging from $r = -.31$ to $r = -.18$ (Perceiving Emotions and

Using Emotions, respectively). The remaining branch, Understanding Emotions, was

positively related to performance ($r = .13$).

The relationships between the branches of EI and performance were also

examined in the RA sample. Whereas only four of the correlations examined in the

Psychology student sample were negative, eight of the correlations in the RA sample were negative. In addition to this difference, none of the correlations in the RA sample were statistically significant. Three of the ECI Self branches and three of the Interview branches were positively related to performance. More specifically, the positive Interview correlations ranged from $r = .06$ to $r = .09$ (Understanding Emotions and Managing Emotions, respectively) and the positive ECI Self correlations ranged from $r = .08$ to $r = .32$ (Social Awareness and Relationship Management, respectively). Two of the MSCEIT branches and all four of the ECI Other branches were negatively related to performance. It is interesting to note that the ECI Other correlations were negative with performance given that they are both ratings provided by outside sources rather than the self.

Based on these findings, Hypothesis 2 stating that there would be a positive relationship between emotional intelligence measures and performance was only partially supported in each sample. When interpreting these results, however, it is important to keep in mind the small sample sizes that were used and that age, race and gender may not have been significant control variables due to a lack of variability in the two samples. Therefore, these findings may not be reliable and should be conducted using larger samples before drawing any conclusions.

Hypothesis 3

To address Hypothesis 3, which stated that the ECI Other would have the highest correlation with performance of the EI measures, the correlations were again examined. In addition to this question, we were also interested in several other possibilities. Would

the "Self" (MSCEIT, ECI Self) or "Other" (ECI Other, Interview) provided ratings have a stronger relationship with performance, would the ECI Other ratings have the strongest relationship with performance, and finally, how would the Interview relate to performance in comparison with the other EI measures. In order to address each of these questions, the overall EI scores computed for Hypothesis 1 were again used. After overall EI scores were computed for each measure, they were then correlated with the performance measure (see Table 16).

Based on these correlations it was possible to determine that ECI Self had the highest correlation with performance in the Psychology student sample ($r = .44$) and the ECI Other had the strongest correlation, albeit negative, with performance in the RA sample ($r = -.36$). Therefore, Hypothesis 3 was partially supported.

In addition to the formal hypothesis, we were interested in whether the self or other reported ratings had a stronger relationship with performance. The correlations in both samples suggest that the most appropriate pairing of EI measures may not be self and other ratings. More specifically, the ECI Self was positively related to performance, whereas the MSCEIT was negatively related to performance. This is not surprising given the fact that the structural equation modeling conducted to answer Research Question 1 did not reveal a "Self" and "Other" pairing of the measures.

The final question we sought to answer was the relationship of Interview with performance. Although we predicted the Interview to be highly correlated with performance, it shared the smallest relationship with performance of all the measures in

both samples. This may be due to the fact that this measure was newly created and did

not have the benefit of refinement based on prior research.

<center>Follow-up Analyses</center>

Past research has shown that both ability and personality measures are related to

emotional intelligence. Given this past relationship we were interested in these

relationships in the current samples. Using GPA, Verbal SAT, Math SAT scores we

were able to examine the relationship between cognitive ability and emotional

intelligence (Tables 17 and 18). In the Psychology sample, the Verbal SAT was

significantly related to the Interview ($r = .26$) and MSCEIT ($r = .25$). Additionally, the

Math SAT and ECI Self were significantly correlated ($r = -.29$). It is interesting to note

that the ECI Self was negatively correlated with each cognitive ability measure. This is

not surprising given past research. In the RA sample, correlations ranged from -.40

(Verbal SAT and ECI Self) to .23 (GPA and Interview). None of the relationships were

significant. Of interest in this sample are the relationships between the MSCEIT and the

cognitive ability measures. All three relationships were negative.

Correlations were also run between the EI measures and the 5 personality factors

(Tables 17 and 18). Correlations ranged from -.21 (Neuroticism and ECI Self) to .49

(Extraversion and ECI Self) in the Psychology sample. Three of the five correlations

between personality and the ECI Self were significant. More specifically, the

relationships between the ECI Self and Conscientiousness ($r = .31$), Extraversion, and

Neuroticism were significant. Additionally, the correlations between Extraversion and

<center>66</center>

the ECI Other ($r = .22$) and Agreeableness and the MSCEIT ($r = .30$) were also significant.

In the RA sample, the correlations ranged from -.16 (Conscientiousness and ECI Other) to .48 (Agreeableness and ECI Self). In this sample, there were eight significant correlations between EI and personality. Conscientiousness, Openness to Experience, Extraversion, and Agreeableness were all significantly related to the ECI Self and the MSCEIT.

Although the findings from this study are not what we expected, there are several interesting points to be made about this research. Therefore, in the following section implications of the findings, limitations of the study, and suggestions for future research will be presented.

CHAPTER FOUR

DISCUSSION

Despite the fact that emotional intelligence has been around since the time of Darwin, the concept has gained much of its recent popularity from the popular press. It has since become recognized in academic venues as an important research path to explore. Past research has focused primarily on defining emotional intelligence and developing measures to assess these conceptualizations. Consequently, there are a variety of definitions and measures now available for emotional intelligence.

This study makes a contribution to the literature by further examining the definition and measurement of emotional intelligence while exploring the possibility of measuring emotional intelligence with an interview. Given the length and cost of many existing EI measures one goal of this study was to provide a more practical means of gathering a behavioral sample of emotional intelligence in the workplace.

Additionally, we were interested in a better understanding of how the various definitions and measures of EI are related to one another and to job performance. In our research, several interesting findings surfaced. The primary finding was that the differing methods of assessing EI, rather than the differing conceptualizations of the emotional intelligence construct, are driving the relations between the various EI measures.

Another interesting finding surrounds job performance. Past research has shown that emotional intelligence is related to job performance, but results from this study do not show clear evidence of this relationship (e.g., Bar-On et al., 2006; Jordan & Troth, 2004; Van Rooy & Viswesvaran, 2004). This study examined multiple

68

conceptualizations and measures of emotional intelligence using two samples. Despite

this breadth of data collected, we were unable to show that EI measures can be used to

significantly predict job performance.

<u>Findings and Implications</u>

As noted, the current research had several questions of interest. Given the

difficulty in collecting data from the initial Resident Hall Assistant sample a second

larger sample was also utilized. This afforded us the opportunity to test our hypotheses in

two independent samples.

It is clear from the results obtained in this study that the relationship between

measures of emotional intelligence is not straightforward. Although many of the

relationships between the EI measures were positive, there were several relationships that

were negative in this study. More specifically, the MSCEIT was negatively related to the

ECI Self in one sample. Given that the ECI Self measure is relatively transparent it is

possible that participants were better able to decipher the appropriate responses for the

ECI Self than for the MSCEIT. The combination of transparency and negative

relationship may suggest that the motivation of those taking a measure of emotional

intelligence could impact the test-taker's scores.

The relationships between the EI measures may also provide evidence that the

MSCEIT is not suitable for all settings. More specifically, the MSCEIT is typically used

in adult samples rather than with college aged students. Additionally, its uses extend

beyond corporate and educational settings to a wide variety of populations such as

clinical patients and correctional facilities. Given the presumed breadth of use the

MSCEIT and the combination of findings in this study more research is needed to better understand not only how measures relate to one another but how these relationships may vary across samples as well.

In this same vein, EI may not be equally suitable in all samples. More specifically, in this study the RA sample produced higher mean scores on EI than the psychology sample in several instances. This may be due to the fact that the RA position on a college campus requires the frequent use of emotions in order to perform the job successfully whereas the jobs held by the psychology students may not have required the same attention to emotions. This finding leads to further support that more research should be conducted to assess the utility of emotional intelligence in a variety of samples.

Another interesting finding was that the structural equation modeling revealed the measures themselves rather than the conceptualizations of emotional intelligence (ability vs. mixed model) were driving the data. Although this finding may be a result of the small sample size utilized given that all relationships examined were close to zero. It is also possible that the measures may be truly influencing the results. This is a commonly overlooked area in research, but was addressed by Schwarz (1999). More specifically, Schwarz notes that such things as item wording, format of a measure, and context can all influence self-report responses. If similar findings were obtained with a larger sample, it could suggest that there may not be as many differences between the conceptualizations of emotional intelligence as previously thought. More specifically, the results showed that if any traits (or conceptualizations) existed in the data, it was more likely to be a single trait, not multiple traits as past research would suggest. With adequate power, we

70

may find even more compelling evidence for this lack of distinction between conceptualizations. Replication of these findings in a larger sample may actually help to simplify the definitions surrounding EI and ultimately lead to a single unified definition for emotional intelligence.

The relationships between personality, cognitive ability, and the emotional intelligence measures were also interesting. More specifically, we expected that the MSCEIT and Interview would be more highly related to the cognitive ability measures than the mixed model measures and the ECI Self and ECI Other more highly correlated to the personality dimensions than the ability measures. These relationships found in past research were also found in the Psychology student sample. The findings were not as clear in the RA sample. For example, the MSCEIT and Interview were most highly correlated with the cognitive ability measures, but the MSCEIT and ECI Self were most highly correlated with the personality dimensions. It is possible that these unexpected results were due to the smaller number of participants in the RA sample. It may also be the case that these correlations provide further evidence that the two samples were different from one another.

One final point of interest in this study was the relationship between EI and job performance. In a job that relies on the ability to effectively use and manage emotions it makes sense that a measure of EI would therefore be able to predict job performance. In this study, however, neither sample revealed evidence of this relationship. Small sample sizes may be the reason for the lack of significant findings. Given the relatively large validity coefficients, a larger sample may reveal a significant relationship. If a significant

relationship does exist, employers may be able to consider using a measure of emotional intelligence during their selection or training processes. More specifically, if it is found that emotionally intelligent employees perform better, training can be developed to help employees develop these EI skills. Additionally, after adequate validation studies, employers may be able to implement EI measures into their selection systems. This would allow employers to select more qualified individuals into positions that require the use of emotions.

Because the findings presented in this study were based on small samples, it would be beneficial for researchers to continue studying the relationships among measures of EI and their relationship with job performance. Such research may help employers better understand whether or not emotional intelligence is a construct suited to the workplace.

<u>Limitations</u>

As with any research study, there are several limitations that must be addressed. The first and perhaps most significant impediment in this study was the small size of both samples. Despite extensive recruiting and the use of incentives (gift cards, course credit), we were unable to obtain a large enough sample to have the desired power for many of the analyses run in this study. The small sample sizes were in part due to the ninety-minute time commitment needed to complete the study; many participants who failed to complete the study noted that they simply did not have enough time to devote to the study.

Another limitation of this study was the lack prior research behind the interview. The ECI Self, ECI Other, and MSCEIT all had the benefit of prior research to aid in the refinement of the measure. Although the addition of the interview built on past research and contributed a new measure to the literature, this measure would benefit from further refinement before future use.

Finally, both samples consisted of college students. Although all participants were either currently employed or had been employed in the past, they were not a true applied adult sample. Additionally, although the test publishers state that the tests may be used for anyone 18-years or older, it is possible that college students may not have developed enough insight to provide quality data on emotional intelligence measures. As with any study that is designed to look at workplace phenomenon, an applied sample is ideal, but very difficult to find.

Despite these limitations, this research did provide the foundation for developing an emotional intelligence interview as well as showing the relationship between job performance and emotional intelligence.

<u>Conclusions and Directions for Future Research</u>

Ultimately, the results reported here can aid not only researchers, but employers and employees as well. Researchers may now be better able to understand how to direct their future research on the definitional issues surrounding emotional intelligence. Additionally, this research may help employers understand that they should be careful in choosing an EI measure as the measure can affect the results. As discussed earlier, if emotional intelligence proves to predict performance, training programs can be

developed or expanded to include sections on emotional intelligence, which will ultimately help employees be more successful in their jobs.

Before looking toward the uses of emotional intelligence in selection and training venues, however it is important to note that not all measures of emotional intelligence are similarly related to each other or performance. It is possible that while one measure of EI may be valuable in the workplace, another measure may not be as well suited. For example, a transparent measure such as the ECI Self may help employees to begin thinking about their own use of emotions. This could be a beneficial precursor to training sessions focused on emotional intelligence. More specifically, it could serve as an "advanced organizer" by letting the employees see the types of concepts that might be discussed. The MSCEIT, which is more difficult to interpret, may not be as beneficial in helping employees think about their use of emotions. These potential differences in utility must be examined as research progresses on emotional intelligence.

Examining the utility of emotional intelligence in predicting performance is not the only additional research needed however. With the information provided in the current study, it is now apparent that the current conceptualizations of emotional intelligence may not be the best or most accurate way in which to represent the construct. The findings from the structural equation modeling and correlational analyses in this study suggest that the measurement of EI may be more important than the conceptualization of EI. Given the low correlations between the measures, future research should aim to better understand the differences in the methodologies used to measure the emotional intelligence construct. It is clear from these results that despite

the various conceptualizations, whether it is one or two, the measures of emotional

intelligence are currently driving the data. Therefore, research should continue to be

conducted in a variety of applied samples to determine if the nature of the job affects how

different measures of EI can and should be used in relation to selection, performance, and

training. Until these basic questions are answered, emotional intelligence and it's uses in

the workplace will not be fully understood.

APPENDICES

RA Demographics

Name: _____

Age: _____

Gender
____ Female
____ Male

Race (check all that apply)
____ Black/African American
____ Asian/Pacific Islander
____ American Indian/Alaska Native
____ Hispanic
____ White (non-Hispanic)
____ Other
____ I do not want to disclose this information

How many years have you been an RA?
____ This is my first year as an RA
____ This is my second year as an RA
____ This is my third year as an RA
____ This is my fourth year as an RA
____ This is my fifth year as an RA
____ I have been an RA for more than five years

I feel like I had to participate in this study due to the expectations of the Housing office and staff.
____ Strongly Disagree
____ Disagree
____ Neutral
____ Agree
____ Strongly Agree

As part of this study we will also be getting the opinion of three of your friends.
Therefore, please provide the name and e-mail address of three friends who:
1. You have known at least 6 months
2. Are currently at Clemson University
3. Would be willing to complete a survey that takes less than 20 minutes to complete

Friend 1:
Name: _____
E-Mail Address: _____

Friend 2:
Name: _____
E-Mail Address: _____

Friend 3:
Name: _____
E-Mail Address: _____

What college/university do you attend?
____Clemson University
____Furman University
____Presbyterian College

Only complete the following if you attend Furman or Presbyterian

What is your GPA? _____
What was your Verbal SAT score? _____
What was your Math SAT score? _____
What was your Writing SAT score? _____
What was your ACT score? _____

Psychology Student Demographics

Name: _____

Age: _____

Gender
____ Female
____ Male

Race (check all that apply)
____ Black/African American
____ Asian/Pacific Islander
____ American Indian/Alaska Native
____ Hispanic
____ White (non-Hispanic)
____ Other
____ I do not want to disclose this information

As part of this study we will also be getting the opinion of three of your friends.
Therefore, please provide the name and e-mail address of three friends who:
1. You have known at least 6 months
2. Are currently at Clemson University
3. Would be willing to complete a survey that takes less than 20 minutes to complete

Friend 1:
Name: _____
E-Mail Address: _____

Friend 2:
Name: _____
E-Mail Address: _____

Friend 3:
Name: _____
E-Mail Address: _____

Work Experience

Are you currently employed?
____Yes
____No

If yes…
What is your job title? (e.g., sales clerk) _____
How long have you been employed? _____Months _____Years
If no…
What was the job title for you most recent job? (e.g., sales clerk)
_____

How long were you employed at your most recent job?
_____Months _____Years
When did you leave this position? _____

If we may contact your most recent supervisor about your job performance, please complete the following information. Please provide as much contact information as possible.

Name of most recent supervisor: _____
Supervisor's Email Address: _____
Supervisor's Phone Number: _____
Supervisor's Mailing Address: _____

RA EI Interview

Perceiving Emotions
1. You hear someone laughing down the hall and they don't seem to be stopping. What emotions might this person be feeling? Please tell me any and all emotions that come to mind.

2. A resident has a dry erase board on their door and they have written "DO NOT DISTURB!" on it. What types of emotions might this resident be feeling? Please tell me any and all emotions that come to mind.

Facilitating Thought
1. A resident on your hall emails you to ask if you have some time to talk today. When you get together, the person seems on edge. How would you use emotions to help the resident feel more at ease?

2. Two roommates come to you because they are having an argument over how late the lights can be on in the room. How would you use emotions to diffuse the anger between the roommates?

Understanding Emotions
1. You have 2 residents come to you because they can't agree on when friends can be in their room and when it needs to be quiet for school work. The two roommates come to an agreement with your help, but 1 week later they are back with the same problem. How do you think the roommates were feeling the first time they came to you? How do you think they were feeling the second time they came to you? Why?

2. Here at Clemson, we have a somewhat diverse population of students. Since research has shown that people from different cultures have different ways of expressing emotions and reacting to events, it is important to understand these differences when interacting with your residents. What would you do if you had residents on your hall from varying cultural backgrounds?

Managing Emotions
1. After getting off to a rocky start with your residents, everything seems to be going really well. What would you do to keep up this positive streak?

2. One of your residents has just come up to you and is elated because they received an A on a difficult project that they spent a lot of time working on. They have another project due this coming week in a different class. What would you do?

Appendix D

Psychology Student EI Interview

Perceiving Emotions
1. You hear a co-worker laughing and they don't seem to be stopping. What emotions might your co-worker be feeling? Please list any and all emotions that come to mind.

2. You manager has a dry erase board on their door and they have written "DO NOT DISTURB!" on it. What types of emotions might your manager be feeling? Please list any and all emotions that come to mind.

Facilitating Thought
1. A co-worker asks if you have some time to talk. When you get together, the co-worker seems on edge. How would you use emotions to help the co-worker feel more at ease?

2. Imagine you are a manager and two co-workers came to you because they are having an argument over who can take their break first. How would you use emotions to diffuse the anger between the co-workers?

Understanding Emotions
1. Imagine again that you are a manager in your workplace. You have 2 co-workers come to you because they are arguing over who should get credit for sales that neither of them helped customers with. The two co-workers come to an agreement with your help, but 1 week later they are back with the same problem. How do you think the co-workers were feeling the first time they came to you? How do you think they were feeling the second time they came to you? Why do you think they felt different the first and second times they came to you?

2. In nearly all workplaces there is a somewhat diverse population of employees. Since research has shown that people from different cultures have different ways of expressing emotions and reacting to events, it is important to understand these differences when interacting with your co-workers. What would you do if your workplace had employees from varying cultural backgrounds?

Managing Emotions
1. After getting off to a rocky start with your co-workers, everything seems to be going really well. What would you do to keep up this positive streak?

2. One of your co-workers has just come up to you and is elated because they worked really hard toward meeting their weekly sales goal and they just surpassed their goal. Next week's sales goal will be just as difficult to meet. What would you do?

Appendix E

RA Performance Evaluation

To be completed by: Resident Director

CLEMSON UNIVERSITY HOUSING
RESIDENT ASSISTANT PERFORMANCE EVALUATION

Name of RA: _____ Building & Floor:_____

Semi-Annual Evaluation Date:_____ Semesters in Position:_____
Annual Evaluation Date:_____ Semesters in Position:_____

For the purpose of this evaluation, the job responsibilities of the Resident Assistant position have been divided into several main job functions:

Operations of residence hall floor or apartment area
Residence Education
Administrative functions
Counseling functions
Personal/professional development
Duty and Crisis Management

Under each section are individual criteria described with behavior statements. Please respond to these statements by indicating a rating (listed below). At the end of each section, please use the same rating guidelines in determining an overall rating for the employee's job performance in the area that you are addressing. ***Be sure to compile some comments that will aid in the understanding of the rating given for the section.*** In writing comments, please be as specific and descriptive as possible, reflecting on the RA's performance and offering suggestions for improvement. Remember that the evaluation process is designed to evaluate the performance, *not the personality*, of the employee. Thank you for your time and effort in this process.

Guidelines for evaluating behavior statements in each section:
1: Consistently Does Not Meet Expectations (employee does not meet minimum expectations in this area and has poor skills and/or abilities)
2: Needs Improvement (employee has minimal understanding of skill area or needs to raise skill level)
3: Meets expectations (employee fulfills normal job requirements and has demonstrated acceptable skills and abilities)
4: Exceeds expectations (employee maintains above average job performance and demonstrates excellent skills and abilities)
5: Substantially Exceeds (Work that is characterized by exemplary accomplishments throughout the rating period; performance that is considerably and consistently above the success criteria of the job.)

Operations of hall floor or apartment area

	Semi-Annual	Annual
1. Assist residents with issues and needs they have.		
2. Engage in initiating work orders for maintenance problems on behalf of residents.		
3. Maintain proper communication with RD and AC regarding residents and facilities' issues.		
4. Establish positive, healthy, and helpful relationships with residents.		

Semi-annual comments

Overall Evaluation_____

Annual comments

Overall Evaluation_____

Residence Education

	Semi-Annual	Annual
1. Facilitates adjustment of new residents to college issues & outgoing residents to off-campus living issues.		
2. Create and maintain safe, supportive, secure, and healthy living environment.		
3. Emphasize and maintain an atmosphere conducive to academic pursuit.		
4. Present active and passive programming opportunities to enhance student development in accordance with specific area (FYE, Upperclassmen, Apartment) requirements.		
5. Actively supports Hall/Community Council initiatives.		
6. Assist in the recruitment of Hall/Community Council executive officers.		
7. Documents residents for inappropriate behavior & alleged violations of community living standards.		

Semi-annual comments

Overall Evaluation_____

Annual comments

Overall Evaluation_____

Administrative functions

	Semi-Annual	Annual
1. Compile & complete daily, weekly, & monthly paperwork associated with the floor/section.		
2. Participate in Residential Life & campus committees or special projects as assigned or volunteered.		
3. Attend weekly or monthly update/informational staff meetings and Hall/Community Council.		
4. Complete administrative projects: occupancy checks, judicial letter delivery, room changes, key inventory.		
5. Conduct health and safety inspections.		
6. Lead special living option floor to meet the needs of diverse population.		
7. Distribute and collect surveys of the residential population.		
8. Assist in room check in and check out.		
9. Work at the front desk three hours per week.		

Semi-annual comments Overall Evaluation_____	Annual comments Overall Evaluation_____

Counseling functions

	Semi-Annual	Annual
1. Respond to counseling issues, concerns, or emergencies as they arise during or after business hours.		
2. Resolve conflicts between residents.		
3. Counsel residents when requested specifically and when within scope of knowledge.		

Semi-annual comments Overall Evaluation_____	Annual comments Overall Evaluation_____

Personal/professional development

	Semi-Annual	Annual
1. Participate in organizations; serve on committees and/or task forces.		
2. Attend workshops or conferences to stay abreast of current issues & to gather pertinent information.		

Semi-annual comments Overall Evaluation_____	Annual comments Overall Evaluation_____

Duty and Crisis Management

	Semi-Annual	Annual
1. Work first and last two weekends of each semester.		
2. Post "RA on Duty" signs on all RA doors and bulletin boards.		
3. Complete on-duty report and expectations given by RD on duty.		
4. Perform periodic inspections/rounds of entire area of responsibility.		
5. Participate in building On-Call program for crisis intervention and follow-up.		
6. Respond to emergencies or crises as they arise during or after business hours.		

Semi-annual comments Overall Evaluation_____	Annual comments Overall Evaluation_____

Summary Comments

RA's Strengths (semi-annual):	RA's Strengths (annual):

RA needs improvements in the follow areas (semi-annual):	RA needs improvements in the follow areas (annual):

Evaluator's suggestions for future plan of action (semi-annual):	Evaluator's suggestions for future plan of action (annual):

RA Signature _____   _____
Date   _____   _____

RD Signature _____   _____
Date   _____   _____

AC Signature _____   _____
Date   _____   _____

<u>Appendix F</u>

<u>Psychology Student Performance Evaluation</u>

Using the following scale, please answer the following questions.

1- Strongly Disagree
2- Disagree
3- Neutral
4- Agree
5- Strongly Agree
NA- Not Applicable

1.   Employee establishes positive and helpful relationships with customers and co-workers. Rating: _____
2.   Assists customers with issues and needs they may have. Rating: _____
3.   Resolves conflicts with customers and co-workers as necessary. Rating: _____
4.   Helps to maintain an atmosphere conducive to customer comfort. Rating: _____
5.   Helps to create a safe and secure working environment. Rating: _____
6.   Attends meetings and training opportunities as required. Rating: _____
7.   I am satisfied with the performance of this person. Rating: _____
8.   In your opinion what is the employee's greatest strength at work?
9.   In your opinion what is employee's biggest area for improvement?
10.   If you have any additional comments you would like to include, please feel free to do so.

Appendix G

RA Housing Introductory Letter

Dear RA,

As you know, part of our mission in University Housing is to support the Academic Mission of the institution. This year, Housing is participating in a research project being conducted by Dr. Patrick Raymark, a faculty member in Psychology and a doctoral student, Moira Hanna in the Psychology department and we are strongly encouraging and requesting that you participate.

This study will be examining how emotional intelligence can help a person perform better on the job. Therefore, the information gathered in this study will help Housing to improve the selection process for Resident Assistants in the coming years. Additionally, this study may help you to begin thinking about the importance of emotions when interacting with other people, including your residents.

Much of this study can be completed online at your convenience.
Here are the components and the estimated time frames:
- Complete the online informed consent and demographic survey - (est. time:10 min)
- Complete the online MSCEIT survey – (est. time: 30-45 min)
- Complete the online ECI survey – (est. time: less than 20 min)
- Attend one 1:1 interview with Moira Hanna (est. time: 40-50 min)
- Identify 3 friends of yours who are willing to take the online ECI survey

Additional information:
- Everyone that participates in the study and completes all measures will be entered into a raffle at the conclusion of the study. RAs will be entered to win a $ 25 gift card. A total of 8 gift cards will be distributed to RAs. The 3 friends you identify will also be entered to win a $ 25 gift card if they choose to participate. A total of 8 gift cards will be distributed to the friends of RAs.
- With your permission, at the end of the Fall term, the researchers will be given access to the evaluations that your residents and supervisors have completed in regards to your performance. These will not be "extra" evaluations, but rather the regular semester evaluation process.

Please take the time to participate, the results of this study will help gather information on RA performance and help us to create stronger selection and evaluation processes. In addition, you will acquire information and have the opportunity to reflect on your own emotional intelligence.

If you have further questions please contact one of the following people:
Dr. Patrick Raymark at 656-4715 or praymar@clemson.edu
Moira Hanna at 884-4243 or mmhanna@clemson.edu
Kathy Hobgood at 656-1151 or kbhob@clemson.edu

Appendix H

RA Participation Request

Dear <u>RA name here</u>,

By now you have received a letter from Housing stating that a study is being conducted about emotional intelligence and how it relates to job performance. As part of my PhD program here at Clemson University I will be gathering this information and would like to invite you to participate. Participation will not only help me to fulfill my graduation criteria, but will also help Housing to improve their selection process for RA's in the coming years.

If you choose to participate, throughout the course of this study you will be completing 3 emotional intelligence measures, 1 interview, and a short demographics measure. All measures except the interview will be completed online and at your convenience. Finally, we will be asking you to identify 3 friends that you have known at least 6 months to complete a 20-30 minute survey as well.

If you choose to participate, please use the following link to complete the short demographics measure (approximately 5 minutes). At the beginning of this survey, you will find an informed consent explaining more about this study as well as the potential benefits and risks associated with participation. Please complete this measure no later than <u>enter date here</u>.

After you complete this measure, you will receive an email with directions for completing the next online measure.

http://www.ioresearch.net/survey/emotional/eci_demographic.php

Thank you for your time and participation. If you have any questions please feel free to email/call Dr. Raymark at praymar@clemson.edu or 656-4715 or me at mmhanna@clemson.edu or 884-4243.

Thank you,

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

RA Informational Letter

Informational Letter for Participation in a Research Study
Clemson University

(Emotional Intelligence: Comparisons of criterion-related validity across conceptual and
methodological variants of measurement)

Description of the research and your participation
You are invited to participate in a research study conducted by Dr. Patrick Raymark and
Moira Hanna. The purpose of this research is to examine the relationship among 3
measures of emotional intelligence and job performance. RAs at three universities are
being invited to participate in this research.

Your participation will involve completing 2 measures of emotional intelligence, 1
emotional intelligence interview, a personality measure, and a short demographics
measure. Additionally depending on which school you attend and if you choose to
participate, you will be asked to allow the researchers to access the performance
information that Housing collects, as well as your GPA and SAT scores. Finally, you will
be asked to identify 3 friends that you have known for at least 6 months who will be
willing to complete a measure of emotional intelligence about you.

The amount of time required for your participation will be approximately 1.5 hours. Your
3 friends will be completing a measure that takes approximately 20-30 minutes to
complete.

If you choose to participate and complete all measures, your name will be entered into a
raffle at the end of the study to win 1 of 8 $25 Visa gift cards (2 have already been
distributed, leaving 6 remaining gift cards available). Additionally, if your friends choose
to participate they will also be entered into a separate raffle at the end of the study to win
1 of 8 $25 Visa gift cards.

To provide further incentive for your participation, we will be raffling off 1 $100 Visa
gift card at the end of the study. This raffle is open to any RA who completes the study
AND encourages another RA to complete the study. For each RA that completes the
study AND states that you were the person who encouraged them to do so you will
receive 1 raffle ticket. The drawing for this gift card will occur at the conclusion of data
collection. For example: If 5 RA's state that you encouraged them to complete the study
you will receive 5 raffle tickets.

Risks and discomforts

There are certain discomforts associated with this research. If you typically feel anxiety when being interviewed or taking a test in a standardized format, you may feel a low level of anxiety during this study. Your answers will not be discussed outside of this research project, however, and you will not be identifiable based on your responses in the final analysis of data.

Potential benefits

This research will help Housing to improve their selection process of RA's in coming years. Such an improvement means that not only will the quality of RA's increase, but you will be working with even more qualified RA's who are dedicated to their job.

Additionally, this study may also help you to begin thinking about how you use emotions in your position of RA at your university/college. In the process of completing the measures in this study, you may reflect on emotional intelligence, but we will not be providing individualized feedback.

Finally, this study will help to further the field of psychology by providing more insight into how emotional intelligence can be utilized in the workplace. This is a concept steadily growing in popularity and more research is needed to determine how to best utilize it.

Protection of confidentiality

We will do everything we can to protect your privacy. Although your name will be collected at the beginning of each measure, a code will be assigned to you upon submission of the informed consent and your name will be replaced with this code on all subsequent data that is collected. Therefore, your name will not be connected to your responses in our database. After all data has been collected, the sheet containing your name and code will be destroyed. Your identity will not be revealed in any publication that might result from this study.

In rare cases, a research study will be evaluated by an oversight agency, such as the Clemson University Institutional Review Board or the federal Office for Human Research Protections, that would require that we share the information we collect from you. If this happens, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Voluntary participation

Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact information

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Patrick Raymark at Clemson University at 864.656.4715. If you have any questions or concerns about your rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

RA MSCEIT and ECI Information

Dear <u>RA Name Here</u>,

Thank you for choosing to participate in this study. In this next phase of the study you will be completing an online assessment of emotional intelligence. The first measure will take between 30 and 45 minutes to complete. The second measure will take less than 20 minutes to complete

Please use the link, code, and password below to access the first assessment.

https://www.mhsassessments.com

Select Language: Leave this set at "English – United States"
Code:_____
Password:_____

Please use this link to access the second assessment:

"ECI link here"

Username: _____
Password: _____

Please complete these assessments no later than <u>enter date here</u>**.**
Thank you and if you have any questions please feel free to email/call Dr. Raymark at praymar@clemson.edu or 656-4715 or me at mmhanna@clemson.edu or 884-4243.

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

Appendix K

RA Interview Information

Dear <u>RA Name Here</u>,

Thank you for your continued participation in this study. The final step in this study is to complete an interview. Interviews will last approximately 1 hour. Sign up early to get the time you want.

Please use the link below to sign up for an interview time.

https://www.appointmentquest.com/provider/2060065634/login

1. Click on "Make Appointment" in upper left corner
2. Click on "Make Appointment for Interview"
3. Click on the month and date you would like and view the times available
4. Click on the time you would like to come for your interview
5. Fill in your First Name, Last Name, and Email address and click "Proceed"
6. Check the info and click "Make Appointment"
7. Write down your username and password in case you need to change your appointment later

Please make sure to write this time down. If you forget what day/time you signed up for, log back in to this system and you will be able to check. Additionally, you will receive a reminder email before your interview.

It is not necessary to dress up for this interview or to bring anything to write with/on. All interviews will be held in Brackett Hall Room 115B.

Thank you and if you have any questions please feel free to email/call Dr. Raymark at praymar@clemson.edu or 656-4715 or me at mmhanna@clemson.edu or 884-4243.

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

Appendix L

RA FERPA Consent Form

Consent for Release of Educational Data for Use in a Research Study
Clemson University

"Emotional Intelligence: Comparisons of criterion-related validity across conceptual and methodological variants of measurement"

We are interested in how SAT and GPA scores relate to emotional intelligence. Is it ok for the researchers to obtain this information from Clemson University? If you agree please complete the release below.

I, _____, authorize Patrick Raymark and Moira Hanna to obtain the following data about me for use in their research study, entitled, "Emotional Intelligence: A comparison of three measures with each other and job performance":

-   SAT/ACT Scores
-   Current GPA

These data will be secured by the investigators; no one else will have access to this information. NONE of this information will be published or released as identifying data.

Clemson ID number: _____

Date of initial enrollment at Clemson University: _____

Participant's signature: _____ Date: _____

_____

We will also be looking at how the measures you complete compare to job performance.

Housing collects performance information twice a year as part of your evaluation as an RA. Is it ok for Housing to release your Fall 2007 and Spring 2008 performance information to the researchers of this study?

____Yes
____No

A copy of this release form should be given to you.

Appendix M

RA Friend Participation Request Letter

Dear RA friend's name here,

By now, RA's name here, who is a Residence Hall Advisor here at Clemson, may have told you about a study they are participating in. As part of my PhD program here at Clemson University I am looking at the relationship between emotional intelligence and RA job performance.

As part of this study we are asking three friends of each RA to assess the emotional intelligence of that RA. This will give us two perspectives of the RA's emotional intelligence (their opinion and friend's opinions). Therefore, we are asking you to take 20-30 minutes to complete the online measure about the emotional intelligence of RA's name here.

Your participation will not only help me to fulfill my graduation criteria, but will also help Housing to improve their selection process for RA's in the coming years.

If you choose to participate, please use the following link to complete the Emotional Competence Inventory. At the beginning of this survey, you will find an informed consent explaining more about this study as well as the potential benefits and risks associated with participation. Please complete this measure no later than enter date here.

"ECI link here"

Username: _____
Password: _____

Thank you for your time and participation. If you have any questions please feel free to email/call Dr. Raymark at praymar@clemson.edu or 656-4715 or me at mmhanna@clemson.edu or 884-4243.

Thank you,

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

RA Friend Informational Letter

Informational Letter for Participation in a Research Study
Clemson University

(Emotional Intelligence: Comparisons of criterion-related validity across conceptual and
methodological variants of measurement)

Description of the research and your participation
Your name was given to us by a Resident Assistant at your university/college who is
participating in a research project. You are also being invited to participate in this
research study conducted by Dr. Patrick Raymark and Moira Hanna. The purpose of this
research is to examine the relationship among 3 measures of emotional intelligence and
job performance. RAs and their friends from several universities/colleges are being
invited to participate in this research.

Your participation will involve completing 1 measure of emotional intelligence. We have
asked RA's at your university/college to complete this measure as well and are interested
in how their responses differ from a friend's responses about the RA.

This measure should take less than 20 minutes to complete.

If you choose to participate, your name will be entered into a raffle at the end of the
study. Prizes will consist of 8 $25 Visa gift cards.

Risks and discomforts
There are certain discomforts associated with this research. If you typically feel anxiety
when asked to describe another person, you may feel a low level of anxiety during this
study. Your answers will not be discussed with your friend or outside of this research
project, however. Additionally, you will not be identifiable based on your responses in
the final analysis of data.

Potential benefits
This research will help Housing to improve their selection process of RA's in coming
years. Such an improvement means that not only will the quality of RA's increase, but the
current RA's will be working with even more qualified RA's who are dedicated to their
job.

Protection of confidentiality
We will do everything we can to protect your privacy. Although the RA's name for whom
you are completing this measure will be collected on the form, as soon as we have all
data for the study, their name will be deleted from our database of responses. Your name

will only be collected to enter you in to the raffle and will not be recorded in the database of responses and your identity will not be revealed in any publication that might result from this study.

In rare cases, a research study will be evaluated by an oversight agency, such as the Clemson University Institutional Review Board or the federal Office for Human Research Protections, that would require that we share the information we collect from you. If this happens, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Voluntary participation
Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact information
If you have any questions or concerns about this study or if any problems arise, please contact Dr. Patrick Raymark at Clemson University at 864.656.4715. If you have any questions or concerns about your rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

Appendix O

RA Debriefing Statement

Dear Participants,

Thank you for your participation in this study. As mentioned in the informed consent that you received this study was interested in looking at the relationship among three measures of emotional intelligence and RA job performance.

Emotional intelligence can be defined in many different ways, but one commonly accepted definition has four parts.

Perceiving Emotions →the ability to perceive emotions in oneself and others, as well as in objects, art, stories, music, and other stimuli

Facilitating Thought →the ability to generate, use, and feel emotion as necessary to communicate feelings, or employ them in other cognitive processes

Understanding Emotions →the ability to understand emotional information, how emotions combine and progress through relationship transitions, and to appreciate such emotional meanings

Managing Emotions →the ability to be open to feelings, and to modulate them in oneself and others so as to promote personal understanding and growth

We have seen in past research that emotional intelligence is related to job performance such that those individuals who are more emotionally intelligence tend to perform better on the job. Since RA's deal with emotions on the job every day, we were particularly interested in seeing if emotional intelligence was related to RA job performance. More specifically, if it is related, then Housing may be able to incorporate emotional intelligence measures in to the selection process for RA's in the future. Therefore, this study may help Housing to better understand the skills necessary to be a successful RA.

Thank you again for you participation and if you have any further questions about the study or emotional intelligence, feel free to email/call Dr. Raymark at praymar@clemson.edu or 656-4715 or me at mmhanna@clemson.edu or 884-4243.

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

Psychology Student Informational Letter

Informational Letter for Participation in a Research Study
Clemson University

(Emotional Intelligence: Comparisons of criterion-related validity across conceptual and
methodological variants of measurement)

Description of the research and your participation
You are invited to participate in a research study conducted by Dr. Patrick Raymark and
Moira Hanna. The purpose of this research is to examine the relationship among 3
measures of emotional intelligence.

Your participation will involve completing 2 measures of emotional intelligence, 1
emotional intelligence interview, a personality measure, and a short demographics
measure. Additionally you will be asked to allow the researchers to access your Clemson
GPA and SAT scores. You will also be asked for permission to contact the supervisor for
your most recent job to obtain a performance evaluation. Finally, you will be asked to
identify 3 friends that you have known for at least 6 months who will be willing to
complete a measure of emotional intelligence about you.

The amount of time required for your participation will be approximately 1.5 hours. Your
3 friends will be completing a measure that takes less than 20 minutes to complete.

If you choose to participate and you will receive course credit via the psychology
department subject pool.

Risks and discomforts
There are certain discomforts associated with this research. If you typically feel anxiety
when being interviewed or taking a test in a standardized format, you may feel a low
level of anxiety during this study. Your answers will not be discussed outside of this
research project, however, and you will not be identifiable based on your responses in the
final analysis of data.

Potential benefits
This study may help you to begin thinking about how you use emotions in your current
and future jobs. In the process of completing the measures in this study, you may reflect
on emotional intelligence, but we will not be providing individualized feedback.

Finally, this study will help to further the field of psychology by providing more insight
into how emotional intelligence can be utilized in the workplace. This is a concept

steadily growing in popularity and more research is needed to determine how to best utilize it.

Protection of confidentiality
We will do everything we can to protect your privacy. Although your name will be collected at the beginning of each measure, a code will be assigned to you upon submission of the informed consent and all your name will be replaced with this code on all subsequent data that is collected. Therefore, your name will not be connected to your responses in our database. After all data has been collected, the sheet containing your name and code will be destroyed. Your identity will not be revealed in any publication that might result from this study.

In rare cases, a research study will be evaluated by an oversight agency, such as the Clemson University Institutional Review Board or the federal Office for Human Research Protections, that would require that we share the information we collect from you. If this happens, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Voluntary participation
Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact information
If you have any questions or concerns about this study or if any problems arise, please contact Dr. Patrick Raymark at Clemson University at 864.656.4715. If you have any questions or concerns about your rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

Psychology Student EI Measure Information

Dear Psychology Student Name Here,

As noted in the study directions (IRB2006-233), please complete the following measures prior to coming to your scheduled time tomorrow. If you have trouble accessing any of the measures please let me know.

STEP 1
Please use the following link to complete the short demographics measure (approximately 5 minutes). At the beginning of this survey, you will find an informational letter explaining more about this study as well as the potential benefits and risks associated with participation.

http://www.ioresearch.net/survey/psych/eci_demographic.php

STEP 2 – MSCEIT
This measure will take between 30 and 45 minutes to complete. Please use the link, code, and password below to access this assessment.

 https://www.mhsassessments.com

Select Language: Leave this set at "English – United States"
Code: _____
Password: _____

STEP 3 – ECI
The second measure will take less than 20 minutes to complete. Please use this link to access this assessment:

http://www.ioresearch.net/survey/psych/

Username: _____
Password: _____

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

Appendix R

Psychology Student FERPA Consent Form

Consent for Release of Educational Data for Use in a Research Study
Clemson University

"Emotional Intelligence: Comparisons of criterion-related validity across conceptual and methodological variants of measurement"

We are interested in how SAT and GPA scores relate to emotional intelligence. Is it ok for the researchers to obtain this information from Clemson University? If you agree please complete the release below.

I, _____, authorize Patrick Raymark and Moira Hanna to obtain the following data about me for use in their research study, entitled, "Emotional Intelligence: A comparison of three measures with each other and job performance":

- SAT/ACT Scores
- Current GPA

These data will be secured by the investigators; no one else will have access to this information. NONE of this information will be published or released as identifying data.

Clemson ID number: _____

Date of initial enrollment at Clemson University: _____

Participant's signature: _____ Date: _____

_____
On the demographic measure at the beginning of this study you were asked to provide the researchers with the contact information for the supervisor of your most recent job. May we contact this person to obtain their evaluation of your work performance?

_____ YES you may contact my supervisor AND ask them to complete an evaluation of my work performance.

_____ NO you may not contact my supervisor or have them complete a performance evaluation.

A copy of this release form should be given to you.

Appendix S

Psychology Student Friend Participation Request Letter

Dear Friend Name Here,

By now, <u>RA Name Here</u>, who is taking a Psychology Course this semester, may have told you about a study he/she is participating in. As part of my PhD program here at Clemson University I am looking at the relationship between emotional intelligence and job performance.

As part of this study we are asking three friends of each participating psychology student to assess the emotional intelligence of that student. This will give us two perspectives of emotional intelligence (their opinion and friend's opinions). Therefore, we are asking you to take 20 minutes to complete the online measure about the emotional intelligence of <u>RA Name Here</u>.

If you choose to participate, please use the following link to complete the Emotional Competence Inventory. At the beginning of this survey, you will find an information letter explaining more about this study as well as the potential benefits and risks associated with participation. Please complete this measure no later than <u>enter date here</u>.

 If you have any trouble accessing the measure, please let me know.

http://www.ioresearch.net/survey/psych/

Username: _____
Password: _____

Thank you for your time and participation. If you have any questions please feel free to email/call Dr. Raymark at praymar@clemson.edu or 656-4715 or me at mmhanna@clemson.edu or 884-4243.

Thank you,

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

Informational Letter for Participation in a Research Study
Clemson University

(Emotional Intelligence: Comparisons of criterion-related
validity across conceptual and methodological variants of measurement)

Description of the research and your participation
Your name was given to us by a Psychology student at Clemson University who is
participating in a research project. You are also being invited to participate in this
research study conducted by Dr. Patrick Raymark and Moira Hanna. The purpose of this
research is to examine the relationship among 3 measures of emotional intelligence and
job performance.

Your participation will involve completing 1 measure of emotional intelligence. We have
asked Psychology students at Clemson University to complete this measure as well
because we are interested in how their responses differ from your responses.

This measure should take less than 20 minutes to complete.

Risks and discomforts
There are certain discomforts associated with this research. If you typically feel anxiety
when asked to describe another person, you may feel a low level of anxiety during this
study. Your answers will not be discussed with your friend or outside of this research
project, however. Additionally, you will not be identifiable based on your responses in
the final analysis of data.

Potential benefits
This research will help understand the nature of emotional intelligence and it's use in the
workplace.

Protection of confidentiality
We will do everything we can to protect your privacy. Although the Psychology student's
name for whom you are completing this measure will be collected on the form, as soon as
we have all data for the study, their name will be deleted from our database of responses.
Your name will not be collected and therefore not recorded in the database of responses.
Your identity will not be revealed in any publication that might result from this study.

In rare cases, a research study will be evaluated by an oversight agency, such as the
Clemson University Institutional Review Board or the federal Office for Human

Research Protections, that would require that we share the information we collect from you. If this happens, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Voluntary participation
Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact information
If you have any questions or concerns about this study or if any problems arise, please contact Dr. Patrick Raymark at Clemson University at 864.656.4715. If you have any questions or concerns about your rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

Psychology Student Debriefing Statement

Psychology Department Subject Pool Participant Debriefing Statement

Emotional intelligence (EI) has received considerable attention in the popular press, but the scientific literature remains undecided on how to best measure emotional intelligence. The current study attempts to clarify some of the confusion surrounding the measurement of emotional intelligence.

Part of this confusion stems from the fact that emotional intelligence is viewed in 1 of 2 ways. One view of emotional intelligence frames it as an ability. Within the ability view, EI is defined as the ability to understand and express yourself, understand and relate with others, manage and control emotions, change, adapt, and solve problems of a personal and interpersonal nature, and generate positive mood and to be self-motivated. The second view of EI is that it is a trait. This view defines EI as an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures.

Therefore, this study has two main purposes.
1. The first purpose is to provide an empirical comparison of the two most widely used conceptualizations of the emotional intelligence construct.
2. The second purpose is to examine the influence of the method of measurement (i.e., self report, aquaintance report, interviewer judgment) on the validity of emotional intelligence scores.

Additional issues to be investigated concern whether emotional intelligence measures something beyond cognitive ability and personality, and whether the various aspects of emotional intelligence are differentially predictive of different perspectives of job performance (i.e., supervisor versus subordinate).

Psychology Student Supervisor Participation Request Letter

Dear <u>Supervisor's Name Here</u>,

Lauren Patterson is participating in a study at Clemson University. As part of my PhD program here at Clemson University I am looking at the relationship between emotional intelligence and job performance.

As part of this study we are asking that the most recent work supervisor for each participant complete a short performance evaluation. Lauren Patterson has provided her consent to allow us to not only contact you but to gather this evaluative information as well. Therefore, we are asking you to take 5-10 minutes to complete the employment performance evaluation below.

Please complete the form found within this email and send it back to me at mmhanna@clemson.edu at your earliest convenience.

Thank you for your time and participation. If you have any questions please feel free to email/call Dr. Raymark at praymar@clemson.edu or 656-4715 or me at mmhanna@clemson.edu or 884-4243.

Thank you,

Moira Hanna
I-O Psychology Doctoral Student
Clemson University

Psychology Student Supervisor Informational Letter

Informational Letter for Participation in a Research Study
Clemson University

(Emotional Intelligence: A comparison of three measures with each other and job performance)

Description of the research and your participation
Your name was given to us by a Psychology student at Clemson University who is participating in a research project. You are also being invited to participate in this research study conducted by Dr. Patrick Raymark and Moira Hanna. The purpose of this research is to examine the relationship among 3 measures of emotional intelligence and job performance.

Your participation will involve completing 10 items about this student's performance at work. This measure should take less than 10 minutes to complete.

Risks and discomforts
There are certain discomforts associated with this research. If you typically feel anxiety when asked to evaluate another person, you may feel a low level of anxiety during this study. Your evaluation will not be discussed your employee.

Potential benefits
This research will help understand the nature of emotional intelligence and it's use in the workplace.

Protection of confidentiality
We will do everything we can to protect your privacy. Although the Psychology student's name for whom you are completing this measure will be collected on the form, as soon as we have all data for the study, their name will be deleted from our database of responses. Your name will not be collected and therefore not recorded in the database of responses. Your identity will not be revealed in any publication that might result from this study.

In rare cases, a research study will be evaluated by an oversight agency, such as the Clemson University Institutional Review Board or the federal Office for Human Research Protections, that would require that we share the information we collect from you. If this happens, the information would only be used to determine if we conducted this study properly and adequately protected your rights as a participant.

Voluntary participation
Your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time. You will not be penalized in any way should you decide not to participate or to withdraw from this study.

Contact information
If you have any questions or concerns about this study or if any problems arise, please contact Dr. Patrick Raymark at Clemson University at 864.656.4715. If you have any questions or concerns about your rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

Consent
I have read this consent form and have been given the opportunity to ask questions. I give my consent to participate in this study. Submission of the performance evaluation is deemed your willingness to participate or your willingness not to participate.

Tables and Figure

Table 1. EQ-i Dimensions

1. Self-Regard
2. Emotional Self-Awareness
3. Assertiveness
4. Independence
5. Self-Actualization
6. Empathy
7. Social Responsibility
8. Interpersonal Relationship
9. Stress Tolerance
10. Impulse Control
11. Reality Testing
12. Flexibility
13. Problem Solving
14. Optimism
15. Happiness

Table 2. ECI and MSCEIT Comparison from MacCann et al. (2003)

ECI	MSCEIT
Self-Awareness (composed of self-awareness, emotional self-awareness, accurate self-assessment, self-confidence)	Branch 1: Perception, appraisal and expression of emotion (Perceiving Emotion)
Social Awareness (composed of social awareness, empathy, service orientation, organizational awareness)	Branch 2: Emotional facilitation of thinking (Facilitating Emotion)
Self-management (composed of emotional self-control, trustworthiness, conscientiousness, adaptability, achievement drive, initiative)	Branch 3: Understanding of the antecedents and consequences of emotions (Understanding Emotion)
Social Skills (composed of developing others, influence, communication, conflict management, leadership, change catalyst, building bonds, teamwork and collaboration)	Branch 4: Regulation of emotion in self and others (Managing Emotion)

Table 3. Psychology Means, SD, and Skewness of the Predictors and Dependent Variable

		Range	Min	Max	Mean	SD	Skew	Skew Std. Error
Interview Branches	Perceiving Emotions	0-4	.00	3.75	2.39	.86	-.64	.25
	Using Emotions	0-4	.50	2.50	1.16	.51	.65	.25
	Understanding Emotions	0-4	.00	1.67	.72	.39	-.08	.25
	Managing Emotions	0-4	.00	3.00	1.09	.71	.22	.25
MSCEIT Branches	Perceiving Emotions	0-1	.20	.75	.58	.11	-.87	.25
	Using Emotions	0-1	.23	.56	.46	.06	-1.00	.25
	Understanding Emotions	0-1	.33	.80	.61	.11	-.57	.25
	Managing Emotions	0-1	.19	.57	.44	.08	-1.06	.25
ECI Self Clusters	Self Awareness	0-15	9.50	14.25	11.99	1.14	-.09	.25
	Social Awareness	0-15	7.33	14.75	12.02	1.44	-.65	.25
	Self Management	0-30	17.75	27.00	22.30	2.03	-.09	.25
	Relationship Management	0-30	15.25	28.25	21.21	2.75	-.02	.25
ECI Other Cluster	Self Awareness	0-15	8.88	15.00	12.10	1.20	.01	.27
	Social Awareness	0-15	3.75	15.00	11.74	1.91	-1.31	.27
	Self Management	0-30	17.21	28.19	22.83	2.09	.27	.27
	Relationship Management	0-30	15.83	27.75	22.18	2.42	-.05	.27
Performance		6-30	22.00	31.00	27.00	3.08	-.450	.550

Table 4. RA Means, SD, and Skewness of the Predictors and Dependent Variable

		Range	Min	Max	Mean	SD	Skew	Skew Std. Error
Interview Branches	Perceiving Emotions	0-4	.00	3.73	2.72	.91	-1.23	.35
	Using Emotions	0-4	.50	2.50	1.37	.49	-.041	.35
	Understanding Emotions	0-4	.17	2.00	1.21	.46	-.280	.35
	Managing Emotions	0-4	.00	3.00	1.24	.71	.021	.35
MSCEIT Branches	Perceiving Emotions	0-1	.26	.74	.58	.11	-.57	.35
	Using Emotions	0-1	.38	.56	.49	.04	-.71	.35
	Understanding Emotions	0-1	.43	.79	.66	.09	-.57	.35
	Managing Emotions	0-1	.27	.55	.46	.07	-1.32	.35
ECI Self Clusters	Self Awareness	0-15	9.08	14.00	12.14	1.06	-.63	.35
	Social Awareness	0-15	7.75	13.75	11.67	1.19	-.56	.35
	Self Management	0-30	18.83	26.25	22.73	1.73	-.17	.35
	Relationship Management	0-30	14.00	26.00	21.94	2.22	-.98	.35
ECI Other Clusters	Self Awareness	0-15	8.75	14.50	12.54	1.36	-1.31	.44
	Social Awareness	0-15	6.25	14.25	12.51	1.78	-2.19	.44
	Self Management	0-30	18.05	29.00	24.14	2.31	-.69	.44
	Relationship Management	0-30	15.08	29.42	23.50	2.99	-.79	.44
Performance		6-30	12.00	28.00	21.33	4.12	-.59	.44

Table 5. Correlations among the EI Measures

	1	2	3	4
1. Interview		.41*	-.17	.03
2. ECI Self	.04		-.13	.28
3. ECI Other	.09	.23*		-.26
4. MSCEIT	.00	-.15	.07	

Notes:
1. Psychology Student sample correlations are presented in the lower left quadrant.
2. RA Sample correlations are presented in the upper right quadrant.
3. * Correlation is significant at the 0.05 level (2-tailed).

Table 6. Correlations between the ECI Self and ECI Other

		ECI Other			
		Self Awareness	Self Management	Social Awareness	Relationship Management
ECI Self	Self Awareness	.21 (.03)	.22 (.06)	.04 (.12)	.29* (.15)
	Self Management	.08 (-.28)	.21 (.04)	.03 (.02)	.27* (-.09)
	Social Awareness	.11 (.02)	.12 (-.12)	.09 (-.16)	.20 (-.02)
	Relationship Management	.11 (-.36)	.19 (-.21)	-.01 (-.21)	.36* (-.22)

Notes:
1. Psychology Student sample correlations are presented without ().
2. RA Sample correlations are presented in ().
3. * Correlation is significant at the 0.05 level (2-tailed).

Table 7. Correlations between the ECI Self and MSCEIT

		ECI Self			
		Self Awareness	Self Management	Social Awareness	Relationship Management
MSCEIT	Perceiving Emotions	.00 (.25)	-.07 (.02)	-.10 (.10)	-.13 (.23)
	Understanding Emotions	-.24* (-.17)	-.14 (-.05)	-.03 (-.19)	-.25* (-.14)
	Using Emotions	.14 (.07)	.04 (.11)	-.02 (-.10)	-.02 (.17)
	Managing Emotions	.02 (.52*)	-.12 (.31*)	-.01 (.45*)	-.07 (.43*)

Notes:
1. Psychology Student sample correlations are presented without ().
2. RA Sample correlations are presented in ().
3. * Correlation is significant at the 0.05 level (2-tailed).

Table 8. Correlations between the ECI Other and MSCEIT

		ECI Other			
		Self Awareness	Self Management	Social Awareness	Relationship Management
MSCEIT	Perceiving Emotions	.17 (-.23)	.14 (-.11)	.07 (-.10)	.00 (-.12)
	Understanding Emotions	-.06 (-.27)	-.06 (-.23)	.11 (-.26)	-.15 (-.24)
	Using Emotions	.11 (-.03)	.13 (-.01)	.12 (-.09)	.17 (.11)
	Managing Emotions	.09 (-.06)	.04 (-.06)	-.03 (-.15)	.03 (.12)

Notes:
1. Psychology Student sample correlations are presented without ().
2. RA Sample correlations are presented in ().
3. * Correlation is significant at the 0.05 level (2-tailed).

Table 9. Correlations between the MSCEIT and Interview

		Interview			
		Perceiving Emotions	Using Emotions	Understanding Emotions	Managing Emotions
MSCEIT	Perceiving Emotions	.02 (-.09)	.02 (.10)	-.09 (-.06)	-.04 (-.14)
	Using Emotions	-.06 (-.11)	.15 (.11)	-.07 (.05)	.02 (-.15)
	Understanding Emotions	-.01 (-.16)	.09 (-.07)	.14 (.00)	-.01 (.12)
	Managing Emotions	-.07 (.23)	-.02 (.09)	-.02 (.18)	.01 (.32*)

Notes:
1. Psychology Student sample correlations are presented without ().
2. RA Sample correlations are presented in ().
3. * Correlation is significant at the 0.05 level (2-tailed).

Table 10. Correlations between the ECI Self and Interview

		Interview			
		Perceiving Emotions	Using Emotions	Understanding Emotions	Managing Emotions
ECI Self	Self Awareness	-.12 (.18)	.08 (.17)	-.09 (.18)	.18 (.34*)
	Social Awareness	-.12 (.32*)	-.08 (.11)	.05 (.00)	-.02 (.53*)
	Self Management	.02 (.05)	.07 (.14)	.10 (.15)	.09 (.36*)
	Relationship Management	.07 (.28)	.06 (.26)	.03 (.26)	-.02 (.33*)

Notes:
1. Psychology Student sample correlations are presented without ().
2. RA Sample correlations are presented in ().
3. * Correlation is significant at the 0.05 level (2-tailed).

Table 11. Correlations between the ECI Other and Interview

		Interview			
		Perceiving Emotions	Using Emotions	Understanding Emotions	Managing Emotions
ECI Other	Self Awareness	-.04 (.00)	.12 (-.06)	.06 (.09)	-.05 (-.22)
	Social Awareness	.01 (-.19)	.10 (-.12)	.05 (.08)	-.01 (-.13)
	Self Management	.13 (-.20)	.12 (.09)	.10 (.04)	.08 (-.31)
	Relationship Management	.14 (-.11)	.06 (-.02)	.01 (.15)	-.07 (-.19)

Notes:
1. Psychology Student sample correlations are presented without ().
2. RA Sample correlations are presented in ().
3. * Correlation is significant at the 0.05 level (2-tailed).

Table 12. EI Measures as the Predictor for Performance DV in Psychology Sample

EI Measure	Predictor	t	Beta	p
ECI Other	Self Awareness	.30	.14	.77
	Self Management	.15	.07	.88
	Social Awareness	.63	.25	.54
	Relationship Management	-.29	-.15	.78
ECI Self	Self Awareness	.69	.27	.51
	Self Management	-.72	-.26	.49
	Social Awareness	.14	.05	.89
	Relationship Management	1.22	.43	.25
MSCEIT	Perceiving Emotions	-1.27	-.45	.23
	Using Emotions	0.25	-.07	.81
	Understanding Emotions	1.14	.35	.28
	Managing Emotions	.05	.02	.96
Interview	Perceiving Emotions	-.04	-.01	.97
	Using Emotions	-.51	-.18	.62
	Understanding Emotions	.35	.10	.74
	Managing Emotions	.69	.25	.51

Table 13. EI Measures as the Predictor for Performance DV in RA Sample

EI Measure	Predictor	t	Beta	p
ECI Other[a]	Self Awareness	-.46	-.23	.65
	Self Management	.18	.10	.86
	Social Awareness	.28	.11	.79
	Relationship Management	-.52	-.35	.61
ECI Self	Self Awareness	-1.95	-.70	.10
	Self Management	-1.05	-.35	.33
	Social Awareness	-.11	-.04	.92
	Relationship Management	2.17	.89	.07
MSCEIT	Perceiving Emotions	.01	.0	.99
	Using Emotions	-.67	-.24	.53
	Understanding Emotions	-.18	-.07	.87
	Managing Emotions	-.28	-.09	.79
Interview	Perceiving Emotions	.86	.40	.43
	Using Emotions	.44	.14	.68
	Understanding Emotions	.23	.10	.83
	Managing Emotions	-2.03	-.59	.09

[a] Results presented here are for the simple, not hierarchical regression.

Table 14. Correlations between EI branches and Performance in the Psychology Sample

EI Measure	EI Branch	r	p
ECI Other	Self Awareness	.23	.38
	Self Management	.19	.45
	Social Awareness	.30	.24
	Relationship Management	.14	.60
ECI Self	Self Awareness	.38	.13
	Self Management	.18	.49
	Social Awareness	.36	.16
	Relationship Management	.50	.04
MSCEIT	Perceiving Emotions	-.31	.22
	Using Emotions	-.18	.48
	Understanding Emotions	.13	.63
	Managing Emotions	-.20	.45
Interview	Perceiving Emotions	.06	.83
	Using Emotions	-.04	.87
	Understanding Emotions	.19	.47
	Managing Emotions	.19	.47

Table 15. Correlations between EI branches and Performance in the RA Sample

EI Measure	EI Branch	r	p
ECI Other	Self Awareness	-.38	.12
	Self Management	-.31	.21
	Social Awareness	-.25	.32
	Relationship Management	-.38	.12
ECI Self	Self Awareness	-.16	.43
	Self Management	.25	.20
	Social Awareness	.08	.68
	Relationship Management	.32	10
MSCEIT	Perceiving Emotions	-.27	.17
	Using Emotions	.12	.56
	Understanding Emotions	.22	.26
	Managing Emotions	-.17	.38
Interview	Perceiving Emotions	.07	.74
	Using Emotions	-.05	.80
	Understanding Emotions	.06	.77
	Managing Emotions	.09	.65

Table 16. Correlations between EI and Performance

		ECI Self	ECI Other	MSCEIT	Interview
Performance	Psychology Sample	.44	.27	-.22	.16
	RA Sample	.21	-.36	-.12	.07

Table 17. Psychology Correlations between EI, Cognitive Ability, and Personality

		ECI Self	ECI Other	Interview	MSCEIT
Cognitive Ability	GPA	-.10	.05	.08	.10
	Verbal SAT	-.17	.11	.26*	.25*
	Math SAT	-.29*	.02	.16	.16
Personality	Conscientiousness	.31*	.11	.17	.06
	Openness to Experience	.19	.20	-.06	.00
	Extraversion	.49*	.22	.06	-.09
	Agreeableness	.17	.03	.14	.30*
	Neuroticism	-.21*	.11	.04	-.18

Notes:
1. * Correlation is significant at the 0.05 level (2-tailed).

Table 18. RA Correlations between EI, Cognitive Ability, and Personality

		ECI Self	ECI Other	Interview	MSCEIT
Cognitive Ability	GPA	.08	.02	.23	-.08
	Verbal SAT	-.40	.08	-.27	-.18
	Math SAT	.02	.04	-.01	-.24
Personality	Conscientiousness	.34*	-.16	.14	.33*
	Openness to Experience	.37*	-.02	-.10	.41*
	Extraversion	.41*	-.12	.15	.34*
	Agreeableness	.48*	-.07	.21	.31*
	Neuroticism	-.04	.07	.10	-.12

Notes:
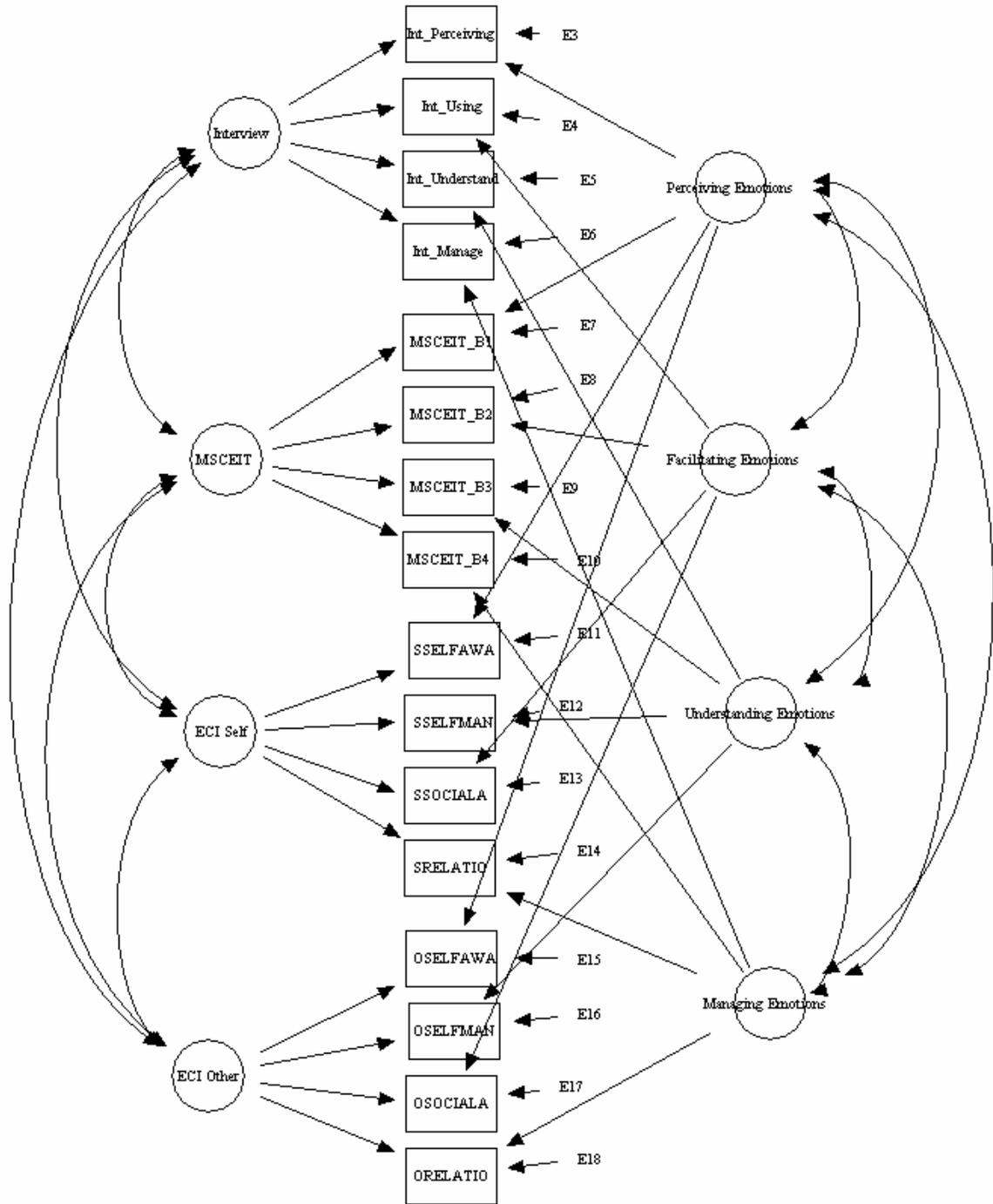1. * Correlation is significant at the 0.05 level (2-tailed).

Figure 1: Full Model with Freely Correlated Traits and Freely Correlated Methods.

REFERENCES

Barchard, K.A. & Hakstian, A.R. (2004). The nature and measurement of emotional intelligence abilities: Basic dimensions and their relationships with other cognitive ability and personality variables. *Educational and Psychological Measurement, 64*(3), 437-462.

Bar-On, R. (1997). *BarOn Emotional Quotient Inventory (EQ-i): Technical manual.* Toronto, Canada: Multi-Health Systems.

Bar-On, R., Handley, R., & Fund, S. (2006). The impact of emotional intelligence on performance. In V.U. Druskat, F. Sala, G. Mount (Eds.), *Linking emotional intelligence and performance at work: Current research evidence with individuals and groups* (pp. 3-19). Mahwah, NJ: Lawrence Erlbaum.

Boyatzis, R.E., Goleman, D., & Hay Group. (2001). *Emotional Competence Inventory.* Boston: Hay Group.

Campion, M.A., Palmer, D.K., & Campion, J.E. (1997). A review of structure in the selection interview. *Personnel Psychology, 50*, 655-702.

Daus, C.S. & Ashkanasy, N.M. (2005). The case for the ability-based model of emotional intelligence in organizational behavior. *Journal of Organizational Behavior, 26*, 453-466.

Day, A.L. & Carroll, S.A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviours. *Personality and Individual Differences, 36*, 1443-1458.

Deeter-Schmelz, D.R., & Sojka, J.Z., (2003). Developing effective salespeople: Exploring the link between emotional intelligence and sales performance. *International Journal of Organizational Analysis, 11*(3), 211-220.

Deggans, E. (2006, January 19) Television, newspapers, Internet, video games. Is there a perfect formula for blending the spectrum of information and entertainment sources? And how much is too much? *St. Petersburg Times.* Retrieved August 3, 2006, from http://www.sptimes.com

Druskat, V.U. & Wolf, S.B. (2001). Building the Emotional Intelligence of Groups. *Harvard Business Review, 79*(3), 80-90.

Fox, S. & Spector, P.E. (2000). Relations of emotional intelligence, practical intelligence, general intelligence, and trait affectivity with interview outcomes: it's not all just 'G'. *Journal of Organizational Behavior, 21*, 203-220.

Freudenthaler, H.H. & Neubauer, A.C. (2005). Emotional intelligence: The convergent and discriminant validities of intra- and interpersonal emotional abilities. *Personality and Individual Differences, 39*, 569-579.

Funder, D.C. (2001). *The Personality Puzzle* (2nd ed.). New York: W.W. Norton & Company.

Goldenberg, I., Matheson, K., & Mantler, J. (2006). The assessment of emotional intelligence: A comparison of performance-based and self-report methodologies. *Journal of Personality Assessment, 86*(1), 33-45.

Goleman, D. (1995). *Emotional Intelligence*. New York: Bantam Books.

Goleman, D. (2004). What makes a leader? *Harvard Business Review, 82*(1), 82-91.

Higgs, M. (2004). A study of the relationship between emotional intelligence and performance in UK call centres. *Journal of Managerial Psychology, 19*(4), 442-454.

Huffcutt, A.I., Conway, J.M., Roth, P.L., & Stone, N.J. (2001). Identification and meta-analytic assessment of psychological constructs measured in employment interviews. *Journal of Applied Psychology, 86*(5), 897-913.

International Personality Item Pool: A Scientific Collaboratory for the Development of Advanced Measures of Personality Traits and Other Individual Differences (http://ipip.ori.org/). Internet Web Site.

Jordan, P. & Ashkanasy, N.M. (2006). Emotional intelligence, emotional self-awareness, and team effectiveness. In V.U. Druskat, F. Sala, G. Mount (Eds.), *Linking emotional intelligence and performance at work: Current research evidence with individuals and groups* (pp. 145-163). Mahwah, NJ: Lawrence Erlbaum.

Jordan, P.J. & Troth, A.C. (2004). Managing emotions during team problem solving: Emotional intelligence and conflict resolution. *Human Performance, 17*(2), 195-218.

Kolar, D.W., Funder, D.C., & Colvin, C.R. (1996). Comparing the accuracy of personality judgments by the self and knowledgeable others. *Journal of Personality, 64*(2), 311-337.

Landy, F.J. (2005). Some historical and scientific issues related to research on emotional intelligence. *Journal of Organizational Behavior, 26*, 411-424.

Law, K.S., Wong, C., & Song, L.J. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of Applied Psychology, 89*(3), 483-496.

Lopes, P.N., Brackett, M.A., Nezlek, J.B., Schütz, A., Sellin, I., & Salovey, P. (2004). Emotional intelligence and social interaction. *Personality and Social Psychology Bulletin, 30*(8), 1018-1034.

Lopes, P.N., Côté, S., & Salovey, P. (2006). An ability model of emotional intelligence: Implications for assessment and training. In V.U. Druskat, F. Sala, G. Mount (Eds.), *Linking emotional intelligence and performance at work: Current research evidence with individuals and groups* (pp. 53-80). Mahwah, NJ: Lawrence Erlbaum.

Lopes, P.N., Salovey, P., Côté, S., & Beers, M. (2005). Emotion regulation abilities and the quality of social interactions. *Emotion, 5*(1), 113-118.

Lumley, M.A., Gustavson, B.J., Partridge, R.T., Labouvie-Vief, G. (2005). Assessing alexithymia and related emotional ability constructs using multiple methods: Interrelationships among measures. *Emotion, 5*(3), 329-342.

Lyons, J.B. & Schneider, T.R. (2005). The influence of emotional intelligence on performance. *Personality and Individual Differences, 39*, 693-703.

MacCann, C., Matthews, G., Zeidner, M., & Roberts, R.D. (2003). Psychological assessment of emotional intelligence: A review of self-report and performance-based testing. *The International Journal of Organizational Analysis, 11*(3), 247-274.

Matthews, G., Zeidner, M., & Roberts, R.D. (2002). Toward a science of emotional intelligence. In *Emotional intelligence: Science and myth* (31-80). Cambridge, MA: The MIT Press.

Mayer, J.D., Salovey, P, & Caruso, D.R. (2002). *Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT): User's Manual*. North Tonawanda, New York: Multi-Health Systems.

Mayer, J.D., Salovey, P., & Caruso, D.R. (2004). Emotional intelligence: Theories, findings, and implications. *Psychological Inquiry, 15*(3), 197-215.

McCrae, R.R., & Costa, P.T. (1997). Conceptions and correlates of openness to experience. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 825–847). San Diego, CA: Academic.

Murphy, K.R. (2006). Four conclusions about emotional intelligence. In K.R. Murphy (Ed.), *A critique of emotional intelligence: What are the problems and how can they be fixed?* (345-354). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Neubauer, A.C. & Freudenthaler, H.H. (2005). Models of emotional intelligence. In R. Schulze, R.D. Roberts (Eds.), *Emotional intelligence: an international handbook* (31-50). Cambridge, MA: Hogrefe & Huber Publishers.

Offermann, L.R., Bailey, J.R., Vasilopoulos, N.L., Seal, C. and Sass, M. (2004). The relative contribution of emotional competence and cognitive ability to individual and team performance. *Human Performance, 17*(2), 219-243.

Paulhus, D.L. & John, O.P. (1998). Egoistic and moralistic biases in self-perception: The interplay of self-deceptive styles with basic traits and motives. *Journal of Personality, 66*(6), 1025-1060.

Posthuma, R.A., Morgeson, F.P., & Campion, M.A. (2002). Beyond employment interview validity: A comprehensive narrative review of recent research and trends over time. *Personnel Psychology, 55*, 1-81

Roberts, R.D., Zeidner, M., & Matthews, G. (2001). Does emotional intelligence meet traditional standards for an intelligence? Some new data and conclusions. *Emotion, 1*(3), 196-231.

Salovey, P. & Grewel, D. (2005). The science of emotional intelligence. *Current Directions in Psychological Science, 14*(6), 281-285.

Salovey, P. & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality, 9*, 185-211.

Schmit, M.J., Ryan, A.M., Stierwalt, S.L., & Powell, A.B. (1995). Frame-of-reference effects on personality scale scores and criterion-related validity. *Journal of Applied Psychology, 80*(5), 607-620.

Schulte, M.J., Ree, M.J., & Carretta, T.R. (2004). Emotional intelligence: not much more than *g* and personality. *Personality and Individual Differences, 37*, 1059-1068.

Schwarz, N. (1999). Self reports: How the questions shape the answers. *Amercian Psychologist, 54*(2), 93-105.

Sedikides, C. (1993). Assessment, enhancement, and verification determinants of the self-evaluation process. *Journal of Personality and Social Psychology, 65*(2), 317-338.

Sue-Chan, C. & Latham, G.P. (2004). The situational interview as a predictor of academic and team performance: A study of the mediating effects of cognitive ability and emotional intelligence. *International Journal of Selection and Assessment, 12*(4), 312-320.

van der Zee, K., Thijs, M., Schakel, L. (2002). The relationship of emotional intelligence with academic intelligence and the big five. *European Journal of Personality, 16*, 103-125.

van der Zee, K. & Wabeke, R. (2004). In trait-emotional intelligence simply or more than just a trait. *European Journal of Personality, 18*, 243-263.

Van Iddekinge, C.H., Raymark, P.H., & Roth, P.L. (2005). Assessing personality with a structured employment interview: Construct-related validity and susceptibility to response inflation. *Journal of Applied Psychology, 90*(3), 536-552.

Van Rooy, D.L. & Viswesvaran, C. (2004). Emotional intelligence: A meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behavior, 65*, 71-95.

Van Rooy, D.L., Viswesvaran, C., & Pluta, P. (2005). An evaluation of construct validity: What is this thing called emotional intelligence. *Human Performance, 18*(4), 445-462.

Wolff, S.B. (2005). Emotional competence Inventory (ECI): Technical manual.