

Applicant reactions to the use of emotional intelligence scales in the selection procedures
of specific occupations

by

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Abstract

Applicant reactions to the use of emotional intelligence scales in the selection procedures of specific occupations

by Allison Dallien

Abstract: Applicant reactions to a selection method can influence applicants' views of the organization, their decisions to join the organization (Macan, Avedon, Paese, & Smith, 1994), and their decisions to pursue legal action (Terpstra, Mohamed, & Kethley, 1999). This study used an experimental design to investigate applicant reactions to ability-based and trait-based emotional intelligence (EI) scales when used as selection methods. A 2 (occupation description) x 5 (testing procedure) design was used. Two hundred and six undergraduate students completed the testing procedures before providing their reactions. Applicant reactions did not differ between the two types of EI scales. The addition of a cognitive ability test to the EI scales did not increase positive reactions. The trait-based EI scale was perceived more favorably when used for an EI-related occupation compared to a non-EI related occupation. Comparisons in reactions to other selection methods are difficult as there is no widely used assessment of applicant reactions.

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Applicant reactions to the use of emotional intelligence scales in the selection procedures of specific occupations

The purpose of this study is to investigate applicant reactions to the use of emotional intelligence (EI) scales as selection methods in the context of hiring for specific occupations. Specifically, the study examined applicant reactions to ability-based and trait-based EI scales in the selection procedures for an EI-related occupation and a non-EI-related occupation. This study also examined the effect that perceived test utility has on applicants' reactions to the selection procedures.

Applicant reactions to selection methods

When hiring new employees, employers have a multitude of selection procedures to choose from. The choice of methods used in a selection procedure by an employer may be based on a number of factors such as the cost of the method, the length of time required to execute the method, or its ability to predict the best performers for the job. One important factor in deciding which selection method to use that many employers may overlook is the potential reactions of job applicants to the use of the selection method.

An employer's choice of selection method can influence applicants' views of the organization, their decision to continue with the hiring process, and whether or not they would accept a position if offered one (Macan, Avedon, Paese, & Smith, 1994). Negative reactions to selection methods have led job applicants to file legal complaints about organizations and their choices of selection procedures (Hackett, Lapierre, & Gardiner, 2004; Terpstra, Mohamed, & Kethley, 1999). Research into the most frequently litigated selection methods in the United States found that unstructured interviews, cognitive ability tests, and physical ability tests are most frequently the source of applicants' legal complaints, respectively (Terpstra et al., 1999). In a review of Canadian Human Rights

Tribunal cases between 1980 and 2003, Hackett et al. (2004) found 75 cases involving charges of discrimination during face-to-face employment interviews. The cases included complaints of non-standardization of questions, non-standardization of scoring, and/or questions not being developed based on job analyses (i.e., questions that were not job related).

The empirical validity of a selection method (i.e., its ability to predict the best performers) does not necessarily influence applicants' decisions to accept or not accept the use of that method in the hiring process (Marcus, 2003). Face validity, which is how relevant to the job the applicant finds the test questions or elements, is more pertinent when considering applicant reactions (Hogan, Hogan, & Roberts, 1996). Although the empirical validity of a test is scientifically and legally more important than its face validity, employers should be cognizant of the fact that a test's face validity can influence how accepting applicants will be of the test (Hogan et al., 1996).

Applicants do not react the same way to all selection methods (Marcus, 2003; Moscoso & Salgado, 2004; Steiner & Gilliland, 1996). Interviews tend to be the one of the most positively viewed selection methods and graphology tends to be the most negatively viewed selection method (Marcus, 2003; Moscoso et al., 2004; Steiner et al., 1996). Perhaps surprisingly, applicants tend not to find integrity tests highly invasive (Thibodeaux & Kudisch, 2003), unless they are personality based (Whitney, Diaz, Mineghino, & Powers, 1999). Although references are not the most favored selection method (in comparison to interviews and work sample tests), they are rated higher than personality tests, integrity tests, and graphology in terms of effectiveness and fairness (Marcus, 2003; Steiner et al., 1996). Applicants tend to respond favorably to the use of an assessment center in a selection procedure (Macan et al., 1994).

In addition to investigating applicant reactions to the selection methods, themselves, researchers have examined the effects of various contextual and procedural manipulations. The outcome of a selection process (i.e., hired or not hired) can influence applicants' perceptions of the selection method(s) that were used in the hiring process. Applicants who are hired tend to react more positively to the selection methods used in the hiring process than those who are not hired (Elkins & Phillips, 2000; Gilliland, 1994; Horvath, Ryan, & Stierwalt, 2000). Similarly, applicants who perform well on the selection method express greater intent to accept a job from the organization if one is offered than those who do not perform well on the selection method (Macan et al., 1994). Providing applicants with an explanation as to why the test is being used (e.g., it is being used because it has been found to predict the most successful performers for this job) influences applicant reactions to a selection method (Ployhart, Ryan, & Bennett, 1999). The medium in which the selection method is presented (e.g., face-to-face vs. telephone/video mediated interviews) can also influence how applicants react to it (e.g., Chapman, Uggerslev, & Webster, 2003). Applicants tend to react more positively to face-to-face interviews, as opposed to those done via telephone or video (Chapman et al., 2003).

Research has examined applicant reactions to numerous selection measures (and different contextual and procedural manipulations); however, current research has not examined how job applicants respond to the use of EI scales in selection procedures. Past research has investigated applicants' reactions to the tests themselves (Jones, 1991; Marcus, 2003; Moscoso et al., 2004; Steiner et al., 1996) and not reactions to tests in the context of specific jobs or occupations. Applicants who perceive a particular selection method to be fair may not feel it is fair to use when used to hire individuals for specific

jobs. That is, applicants may feel it is not appropriate or fair to use a particular method in the selection procedures for all types of jobs, especially when the method is perceived to be unrelated to the job they have applied for.

This study sought to address two issues in research on applicant reactions to various selection methods: (1) the lack of research on applicant reactions to EI scales being used as selection methods, and (2) the minimal research on applicant reactions to selection methods in the context of specific jobs and occupations.

Emotional Intelligence

The amount of literature on EI has increased dramatically in the past decade. Between the 1940's and mid-1990's, only a handful of published articles focused on EI. The past decade has seen EI literature grow to hundreds of articles and books, with a continuously growing interest in the topic today. EI has been investigated in a wide range of settings such as organizations (e.g., Cherniss, 1999; Hays, 1999) and academic settings (e.g., Newsome, Day, & Catano, 2000), with various types of samples, such as university students (e.g., Newsome et al., 2000).

There are a number of different definitions of EI in the current literature. Salovey and Mayer (1990) defined EI as the ability to monitor and discriminate among one's own feelings and emotions, as well as the feelings and emotions of others, and to use this information to guide one's thoughts and actions. Salovey and Mayer's model of EI contains four branches: Identifying emotions, using emotions, understanding emotions, and managing emotions. The branch called "identifying emotions" includes the ability to identify feelings and correctly express emotions. "Using emotions" (or "Emotional facilitation of thought") involves using emotions to assist decision-making and encourage different ways of solving problems. The "understanding emotions" branch includes the

ability to understand complex emotions and their causes, as well as the relationships among emotions. The fourth branch, “managing emotions” involves being able to remain aware of one’s emotions (even those that are not enjoyable) and determine characteristics of one’s emotions (Caruso, Mayer, & Salovey, 2002).

Goleman's (1995) book on the topic of EI in the mid 1990s was met with wide-range acceptance by the public. The term ‘emotional intelligence’ became popular – a buzzword – particularly in the business world. Goleman’s (1995) definition of EI differs from that of Salovey and Mayer (1990). Goleman (1995) stated that EI involves (1) knowing one’s emotions: being self-aware and recognizing a feeling as it is happening; (2) managing emotions: handling feelings appropriately, having the ability to soothe oneself and recover from upsets and setback; (3) motivating oneself: having control over own emotions in order to reach a goal, delaying gratification to reach an accomplishment; (4) recognizing emotions in others: able to be empathic, are attuned to the social signs of others that indicate how they are feeling; and (5) handling relationships: being socially competent, able to manage emotions in others.

Shortly after Goleman popularized EI with the release of his book, Bar-On published a measure of EI that he has continued to develop since the 1980s, called the Emotional Quotient Inventory (EQ-*i*; 1997). Bar-On (2000) stated that the EQ-*i* assesses an individual’s (1) intrapersonal emotional quotient (which assesses an individual’s level of self-regard, emotional self-awareness, assertiveness, independence, and self-actualization); (2) interpersonal emotional quotient (comprised of empathy, social responsibility, and interpersonal relationship); (3) stress management emotional quotient (which assesses an individual’s level of stress tolerance and impulse control); (4) adaptability emotional quotient (comprised of reality testing, flexibility, and problem

solving); and (5) general mood emotional quotient (comprised of optimism and happiness).

Ability-based and trait-based emotional intelligence

The differences in definitions in EI led to differences in the creation of assessment tools used to measure EI. In the literature on EI, there is a distinction between ability-based and trait-based EI (e.g., Perez, Petrides, & Furnham, 2005). Ability- and trait-based EI differ not in the facets that the models are hypothesized to include, but in the types of measures that are used to assess them (Perez et al., 2005). Trait-based measures assess emotional self-efficacy with self-report questionnaires. An example of a trait-based EI measure is Bar-On's Emotional Quotient Inventory (EQ-I; Bar-On, 1997). Ability-based measures assess cognitive-emotional ability with maximum performance tests. An example of an ability-based EI measure is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT).

Caruso, Mayer, and Salovey (2002) argued that ability-based models help designate EI as an intelligence, similar to that of spatial or verbal intelligence. The difference between EI and other types of intelligences is that it operates on, and with, emotional content. Caruso et al. (2002) argued that ability-based (or "performance-based") measures of EI most directly operationalize it as an intelligence, because they have respondents solve problems pertaining to, and involving the use of, emotions.

Self-report measures of EI and ability-based measures of EI are not significantly correlated with each other (e.g., Brackett, Rivers, Shiffman, Lerner, & Salovey, 2006; Goldenberg, Matheson, & Mantler, 2006), suggesting that they are measuring different constructs. Further evidence for the position that the trait-based and ability-based EI

scales assess different constructs lies in the research investigating the relationship of EI with other constructs when assessed by the two different types of measures.

Newsome et al. (2000) investigated the relationship between a self-report measure of EI (Emotional Quotient Inventory) and students' GPA scores. Newsome et al. (2000) found that there was no significant relationship between GPA scores and students' scores on the self-report EI measure. Similarly, O'Connor and Little (2003) found that an ability-based EI measure (i.e., MSCEIT), but not a self-report measure of EI (i.e., EQ-i) was significantly correlated with a measure of cognitive ability. O'Connor et al. (2003) also found that many of the scales in the self-report measure were significantly correlated with multiple dimensions in a personality inventory (e.g., extraversion), whereas most of the scales in the ability-based measure were not related to personality. Typically, ability-based EI measures are not significantly related to measures of personality, which suggests that these measures are not assessing the same constructs as assessed by personality tests (Caruso et al., 2002).

Using emotional intelligence for recruitment & selection

The wide array of research and literature on EI has propagated countless debates over the "right" definition and model of EI, and even over whether or not the concept of EI actually exists (e.g., Locke, 2005). Regardless of the debates, the differing definitions of EI, and the multiple measures designed to assess the construct, a number of researchers and businesspeople have supported the idea that leaders and employees high in EI would be beneficial for the workplace.

Researchers and organizations have cited case examples and research to delineate the benefits of employing workers high in EI – benefits such as increases in profits (Bachman, Stein, Campbell, & Sitarenios, 2000; Cherniss, 1999; Hays, 1999), increased

employee creativity, innovation, and team work skills (Stough & De Guara, 2003), and stronger social networks among employees (Freshman & Rubino, 2004). There is contradictory evidence to the benefits of EI in the workplace (e.g., Schmit, 2006) and potential legal ramifications of using EI in selection (e.g., gender scoring differences with the MSCEIT which may not translate into gender differences in job performance, Day & Carroll, 2004; potential for faking EI scores, Day & Carroll, 2007). Regardless of this contradictory evidence and prospective legal problems, there is an increasing interest in using EI in employee recruitment and selection (Cadman & Brewer, 2001), particularly for leaders in healthcare settings (Buchler, Martin, Knaebel, & Buchler, 2006; Freshman et al., 2004).

Cadman et al. (2001) suggest that EI would be a reliable predictor of the success of nursing candidates. Cadman et al. (2001) propose that the characteristics necessary to be a successful nurse can be assessed using a measure of EI. Healthcare professionals need to be empathic, warm, and able to communicate genuine concern for their patients. With many nursing teachers and other healthcare leaders found to be lacking in EI characteristics, Cadman et al. (2001) suggest that it is necessary to select nursing candidates who are already emotionally intelligent as there is a lack of positive, emotionally intelligent role models for them.

Freshman et al. (2004) propose that assessing EI for leadership roles in healthcare would be particularly useful. Healthcare executives need personal and interpersonal skills in order to develop relationships in the organization, which will help them stay better informed. Freshman et al. (2004) suggest that EI can provide a framework in which healthcare executives can create the necessary competencies. These competencies can help form and strengthen internal and external social networks in the healthcare field.

While there are numerous examples of organizations that are using EI competencies as the basis for selection and training of employees (Cherniss, 1999; Hays, 1999), and many business consultants willing to assist organizations in using EI for selection (as shown by a brief Internet search), there has not been an investigation into how job applicants would react to the use of EI scales in selection procedures. A wide range of studies on applicant reactions to selection procedures show that those reactions may affect applicants' perceptions of the organization and their intentions to accept a job if offered one; therefore, it would seem foolish for employers to use EI scales in selection (and for researchers and consultants to suggest doing so) without knowing how applicants respond to their use.

This study investigated how applicants would respond to the use of EI scales in selection procedures for specific occupations. More specifically, it investigated whether their reactions would differ to ability-based (Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) and a trait-based EI scale (Emotional Quotient Inventory (EQ-*i*)). There should be a difference in reactions to the two types of EI tests, as they contain different types of questions (self-report vs. performance) and assess different aspects of EI (self-efficacy vs. ability).

Applicants may react more negatively to the use of the trait-based EI scale, as the self-report questionnaire contains items similar in appearance to personality inventory items (e.g., "I have good thoughts about everyone") and is correlated with multiple dimensions of personality inventories. Applicants tend to react negatively to the use of personality inventories (McFarland, 2003; Rosse, Miller, & Stecher, 1994) and personality-based tests (e.g., personality-based integrity tests; Whitney et al., 1999) in selection procedures. Alternatively, applicants may react more negatively to the ability-

based EI scale if they find the questions to be silly or unrelated to the occupation for which they are applying. The questions in the ability-based EI scale include those that have applicants identify emotions expressed in pictures of people's faces and how much feelings are expressed in pictures of inanimate objects and artistic designs, which may not be appropriate or useful for selecting job candidates.

Hypothesis 1: There will be a difference between applicant reactions to an ability-based EI scale and a trait-based EI scale (non-directional hypothesis).

Effect of EI-relatedness of occupation on applicant reactions

Previous work on applicant reactions to selection methods has not always incorporated the specific occupations for which the applicants are being evaluated. There are some studies that investigate applicant reactions to selection methods in specific occupations, such as police officers (Carless, 2006) and firefighters (Ryan, Greguras, & Ployhart, 1996); however, many studies investigating applicant reactions to selection methods have ignored this contextual factor. Some researchers simply ask participants to rate, compare, or give their reactions to a list of selection methods (e.g., Moscoso & Salgado, 2004; Steiner & Gilliland, 1996). Marcus (2003), in a replication and extension of Steiner et al.'s (1996) study, found that applicant reactions to various selection methods differed when they actually completed the selection methods compared to when they simply read a description of the methods and rated them. Other researchers (Jones, 1991; Ryan & Sackett, 1987) have assessed applicant reactions to a particular selection method out of the context of a specific job - seemingly implying that the reactions could be generalized to all applicants who complete that selection method, regardless of the job for which they are applying.

The inclusion of specific occupations provides the basis for an additional manipulation in applicant reaction research. This study manipulated the types of occupations the applicants would be applying for – either an emotionally related occupation or one that did not have an obvious emotional component. The perceived relatedness of a selection method to the job being hired for can have an effect on applicant reactions to that selection method. Job applicants who perceive the selection method used as being job-related are more likely to perceive the selection process as fair in the final stage of the hiring process (Van Vianen, Taris, Scholten, & Schinkel, 2004).

Jones (1991) found that participants responded better to the use of a version of an integrity test that was specifically created for an employment setting compared to a version consisting of clinically derived items. Applicants perceived the clinical version of the test as being less job-relevant, more invasive, and more offensive, and overall a less acceptable selection tool. Jones (1991) also found that applicant ratings of job-relevance were significantly negatively correlated with their ratings of the invasiveness and offensiveness of the tests (i.e., the higher the ratings of job-relevancy of the test items were, the less invasive and offensive the test was perceived to be). Similarly, Thibodeaux et al. (2003) found that sales associate applicants who perceived the company's selection methods (test battery, integrity test, and math test) as being more relevant to the position considered them to be less invasive. Also, job relatedness was negatively correlated with the applicants' perceptions of the likelihood of others filing a legal complaint about the methods (Thibodeaux et al., 2003). Gilliland (1994) found that applicants for a clerical task had more positive perceptions of procedural and distributive fairness with increased perceptions of the job-relatedness of the assessment methods.

The present study investigated the effect of the manipulation of occupation type on applicant reactions. The occupation types ranged in the level of EI that appeared to be required for successful performance. Applicants in this study were either given a job description for an occupation that likely requires EI for successful performance (Elementary School Teacher or Counselor) or an occupation that does not appear to require EI for successful performance (Accounting Clerk or Computer Systems Analyst). EI-related and non-EI-related occupation descriptions should thus influence the applicants' ratings of the different selection methods.

Hypothesis 2: Applicants who are given the job description for the occupation that does not require EI will react more negatively to the selection procedure as compared to those given the job description for the occupation that does require EI.

Effect of perceived utility of methods on applicant reactions

The perceived utility of a selection method is how useful applicants see the method in selecting the best candidate for the position. The perceived utility of a selection method in a selection process can be influenced by the use of other selection methods with it. Selection methods that are generally perceived negatively when used on their own, such as personality tests, may be viewed more favourable by applicants when used in conjunction with other selection methods (e.g., Rosse et al., 1994).

Rosse et al. (1994) investigated applicant reactions to the use of a personality test in addition to the normal selection process of a U.S. property management firm. The normal selection process included an application form, a structured interview, and reference checks. Applicants were given the NEO Personality Inventory-Revised (NEO PI-R), both the NEO PI-R and the Wonderlic Personnel Test of cognitive ability, or no

further testing. Rosse et al. (1994) found that applicants who completed only the personality test had more negative reactions to the selection procedure than those who completed the personality and cognitive ability tests and those who did not receive any further testing. Applicants who completed only the personality test rated its use as less appropriate (e.g., invaded privacy, irrelevant to job) than those who completed both the personality and cognitive ability tests.

In the current study, applicant reactions to an ability-based and a trait-based EI test are compared to applicant reactions to the same tests when paired with a cognitive ability test (manipulation of test utility).

Hypothesis 3a: Applicants who complete only an EI scale will react more negatively to the selection process compared to those who complete an EI scale and a cognitive ability test.

In the case of cognitive ability tests, applicants tend to have strong negative reactions when there is the existence (or possible existence) of differential performance for certain groups, such as minorities, or when the use of a cognitive ability test does not seem to be job-related (Ployhart, Zeigert, & McFarland, 2003). Cognitive ability tests are the second most frequently litigated selection method in the United States (Terpstra et al., 1999).

Macan and colleagues (1994) examined how manufacturing job applicants (i.e., producing, packing, and shipping products) reacted to the use of cognitive ability tests to make initial selection decisions. Applicants were asked to complete a cognitive ability test that included a reading comprehension test, an arithmetic test, and a forms checking test. Applicants' perceptions of the face validity and the fairness of the cognitive ability test were moderately favorable. Upon comparing the manufacturing job applicants'

perceptions of the cognitive ability test to their perceptions of the use of an assessment center for selection, Macan and colleagues (1994) discovered that the applicants perceived the assessment center as having greater face validity than the cognitive ability test. This research suggests that applicants who receive only a cognitive ability test will react more negatively than applicants who receive the cognitive ability test as part of a test battery.

Hypothesis 3b: Applicants who complete the cognitive ability test only will react more negatively to the selection process than applicants who complete the EI scales with the cognitive ability test.

Assessing applicant reactions

Currently, there is no widely used instrument that assesses applicant reactions to a selection method. Often researchers create their own items to assess applicant reactions (e.g., Schwoerer & Rosen, 1989), or use items created by other researchers (e.g., Marcus, 2003; Moscoso et al., 2004; Smither, Millsap, Stoffey, Reilly, & Pearlman, 1996). A number of researchers have based their questionnaire items on a justice model of applicant reactions to selection systems created by Gilliland (1993; e.g., Bauer, Truxillo, Sanchez, Craig, Ferrara, & Campion, 2001; Carless, 2006; Steiner et al., 1996).

Gilliland's (1993) model was created in an attempt to organize existing research on applicant reactions, guide future research in the area, and incorporate organizational justice issues that had not been previously considered. The model outlines 24 elements that are hypothesized to interact to influence applicant reactions to a selection system (and a number of outcomes, if a person is hired, such as organizational citizenship behaviors). In particular, 10 procedural justice rules are presented that, according to Gilliland (1993), underlie applicants' perceptions of the fairness of a selection system

(i.e., their reactions to the selection system). Some of the elements included in Gilliland's (1993) model are test type, hiring decision, performance expectations, job-relatedness, and opportunity to perform, all of which have now been investigated in some manner in applicant reactions research. Gilliland's (1993) model itself has yet to be validated, most likely due to the fact that it contains a substantial number of elements hypothesized to interact to explain applicant reactions to a selection method/process. Regardless, elements within Gilliland's model have driven research on applicant reactions to selection procedures.

Typically, research based on the elements of Gilliland's model uses items generated for the specific study to assess applicant reactions. Therefore, the wording, number of items, and aspects assessed vary widely across these studies. For example, items used by previous researchers assess process favorability (Marcus, 2003; Moscoso et al., 2004; Steiner et al., 1996), procedural justice (Carless, 2006; LaHuis, 2005; Marcus, 2003; McFarland, 2003; Moscoso et al., 2004; Steiner et al., 1996), organizational attractiveness (Carless, 2006; Schwoerer et al., 1989; Smither et al., 1996), job pursuit intentions (Carless, 2006; LaHuis, 2005; Schwoerer et al., 1989; Smither et al., 1996), job-relatedness (Carless, 2006; LaHuis, 2005), opportunity to perform (McFarland, 2003), and perceived performance (LaHuis, 2005). Not all researchers assess the same aspects, and definitely do not use the same items, when assessing applicant reactions. Also, researchers that use previously developed items continue to them without questioning whether the items are appropriate or not for assessing applicant reactions (e.g., LaHuis, 2005; Smither et al., 1996). This lack of standardization of the outcome measure may be a significant reason for the differences in outcomes among these studies. That is, the differences may not be due to the selection tool but rather the questions used to assess

those reactions. Clearly a standardized tool is necessary to make progress in this line of research.

A secondary objective of the current study, thus, was to determine if items used in previous applicant reactions research are appropriate and useful for assessing reactions to selection methods in that they are assessing the same reactions. A combination of items from three previous studies (Bauer, Truxillo, Sanchez, Craig, Ferrara, & Campion, 2001; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993; Steiner et al., 1996) was used to create a questionnaire for the current study. A factor analysis was first conducted on the combined items to determine the most appropriate scale to use in assessing applicant reactions in this study.

Method

Participants

Two hundred and thirty nine undergraduate psychology students at Saint Mary's University completed an online survey. Due to website failure during testing sessions, only the data for 206 participants could be used in the statistical analyses.

The mean age for participants was 21.21 years ($SD = 3.65$, range 18-43), with 63.6% of the participants being female. Thirty percent of participants were majoring in Psychology, 12% were majoring in Business/Commerce, 12% were undecided on their majors, and each of the other majors contained less than 10% of the participants. Fifty-five percent of participants were employed (mean hours worked/week = 19.11), with 51.8% working in sales/service positions. Five percent of the participants worked as university staff (e.g., residence assistant), 3% were teaching assistants, 2% worked as library clerks, 2% were in the military, and 2% were sports instructors. The other 35% of employed participants worked in jobs that could not be easily grouped together or broadly

labeled. Participants received bonus points for an undergraduate psychology course they were enrolled in as compensation for their participation.

Design

A 2 (occupation description: EI-related, non-EI-related) x 5 (testing procedure: cognitive ability test, trait-based EI scale, ability-based EI scale, trait-based EI scale and cognitive ability test, ability-based EI scale and cognitive ability test) between-subjects design was used for this study. Participants were randomly assigned to one of the ten conditions.

Measures

Ability-based Emotional Intelligence: The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is an ability-based EI scale developed by Mayer, Salovey, and Caruso (2002). The scale contains 141 items that are separated into eight tasks: faces, pictures, facilitation, sensations, changes, blends, emotional management, and emotional relations. This self-report measure takes approximately 30-45 minutes to complete. The MSCEIT gives scores for overall EI, two areas (i.e., experimental EI and strategic EI), and four branches (i.e., emotional understanding, emotional perception, emotional facilitation, emotional management). The MSCEIT has an overall internal consistency coefficient of .93 with general (consensus) scoring, and .91 with expert scoring; with the individual subscale coefficients ranging from .76 to .98 (Mayer, Salovey, Caruso, & Sitarenios, 2003).

Trait-based Emotional Intelligence: The Bar-On Emotional Quotient Inventory (EQ-*i*) is a trait-based EI scale developed by Bar-On (1997). The scale contains 133 items, and takes approximately 30 minutes to complete. Participants answer using a likert scale ranging from Very seldom or not true of me (1) to Very often true of me or True of

me (5). The scale gives scores for overall EI, five composite scales (i.e., intrapersonal, interpersonal, adaptability, stress management, and general mood) and 15 subscales (i.e., self-regard, emotional self-awareness, assertiveness, independence, self-actualization, empathy, social responsibility, interpersonal responsibility, reality testing, flexibility, problem solving, stress tolerance, impulse control, optimism, and happiness). The EQ-*i* has an overall average internal consistency coefficient of .76, with the individual subscale coefficients ranging from .69 to .86 (Bar-On, 1997).

Cognitive Ability: The Wonderlic Personnel Test (Wonderlic & Hovland, 1939) is a 50-item test that assesses cognitive ability. The test assesses test-takers' knowledge on such elements as analogies, arithmetic, and word definitions with fill in the blanks, true or false, and multiple-choice questions. Test-takers are given 12 minutes to complete as many of the test questions as they can.

Applicant Reactions: Applicant reactions to the selection procedure were assessed with a 37-item scale (Appendix A) consisting of applicant reaction questions from previous studies, with 7 items from Steiner and Gilliland (1996), 7 items from Bauer, Truxillo, Sanchez, Craig, Ferrara, and Campion (2001), and 23 items from Smither, Reilly, Millsap, Pearlman, and Stoffey (1993). The items assess applicant reactions to the (1) face validity of the selection methods (5 items; e.g., "I did not understand what the selection method had to do with the job"), (2) perceived predictive validity of the selection methods (5 items; e.g., "Failing to pass the selection method clearly indicates that you can't do the job"), (3) likelihood of improvement (5 items; e.g., "There is nothing I can do to improve my performance on the selection method"), (4) affect (2 items; e.g., "I enjoyed the selection method to a great degree"), (5) perceived knowledge of results (3 items; e.g., "After I finished the selection method it was clear to me how well I

performed”), (6) organizational attractiveness (3 items; e.g., “The Maritime School Board would be a good employer to work for”), (7) process favorability (2 items; e.g., “How would you rate the effectiveness of this method for identifying qualified people for this occupation?”), (8) procedural justice (5 items; e.g., “Employers have a right to obtain information from applicants using this information”), (9) chance to perform (4 items; e.g., “I could really show my skills and abilities through this selection method”), and (10) propriety of questions (3 items; e.g., “The content of the selection method seemed appropriate”). Participants responded on a Likert scale ranging from strongly disagree (1) to strongly agree (5).

Manipulation Check: A question was added to the Applicant Reactions Questionnaire to assess the occupation manipulation (EI-related vs. non-EI-related). Applicants were given a definition of EI and asked to indicate how important they thought EI was for successful job completion of the occupation they were given. Participants responded on a Likert scale ranging from not applicable (0) to extremely important (5). A similar question was also added to assess how important participants thought cognitive ability was for successful job completion of the occupation they were given.

Demographics: Upon completion of the Applicant Reactions Questionnaire, participants completed a demographics form. The form asked about their age, gender, year of study, program of study, employment status, current job, and hours worked per week (See Appendix B).

Procedure

The descriptions of the occupations used in this study, Counselor, Elementary School Teacher, Accounting Clerk and Computer Systems Analyst (See Appendix C),

were developed using descriptions of the occupations found on O*NET, an occupational network database (National Center for O*NET Development, 2006). These occupations were chosen based on their score on the Emotional Ability Rating Scale (EARS) in a validation study for that scale (Melnyk, Day, & Catano, 2007), and their scores from O*Net ratings of various characteristics theorized to be encompassed by EI (e.g., social perceptiveness; Melnyk et al., 2007). Four occupations were chosen for the occupational context manipulation to ensure that any results were not confounded with a particular occupation, but rather by the EI-related or non-EI-related nature of the occupation.

Participants in the same testing session completed the same selection procedure (to ensure participants did not know there were other selection procedures being used in the study when giving their reactions to selection procedure they completed). Participants in the same testing session did not necessarily have the same occupation description (participants did not know there were different occupation descriptions).

Upon entering the laboratory, the experimenter informed participants that the purpose of the study was to assess applicant reactions to a proposed selection procedure for a particular occupation. Participants were given a description of an EI-related occupation (Counselor or Elementary School Teacher) or a non-EI-related occupation (Accounting Clerk or Computer Systems Analyst). For the purposes of participant assignment, the occupation descriptions were considered to be four separate conditions for each of the testing procedures (i.e., Counselor, Elementary School Teacher, Accounting Clerk, Computer Systems Analyst). Participants were randomly assigned to one of the four conditions, until an initial quota of 10 participants for a condition was reached. This was done in an attempt to achieve a distributed balance of each occupation description in the EI/non-EI conditions (i.e., equal numbers of each of the two occupation

descriptions in the conditions to ensure that applicant reactions were not biased by one occupation over the other).

Participants were asked to think of themselves as an applicant for the occupation for which they received a description. They were also told to think of themselves as having already gone through the application process and having had an interview, but that the employer wanted them to complete one (or two) more test(s) to help the employer decide which applicant to hire for the job. The experimenter informed participants that their reactions to the use of these tests as part of the hiring process (in addition to the application process and interview) for their occupation would be assessed after they completed the selection procedure.

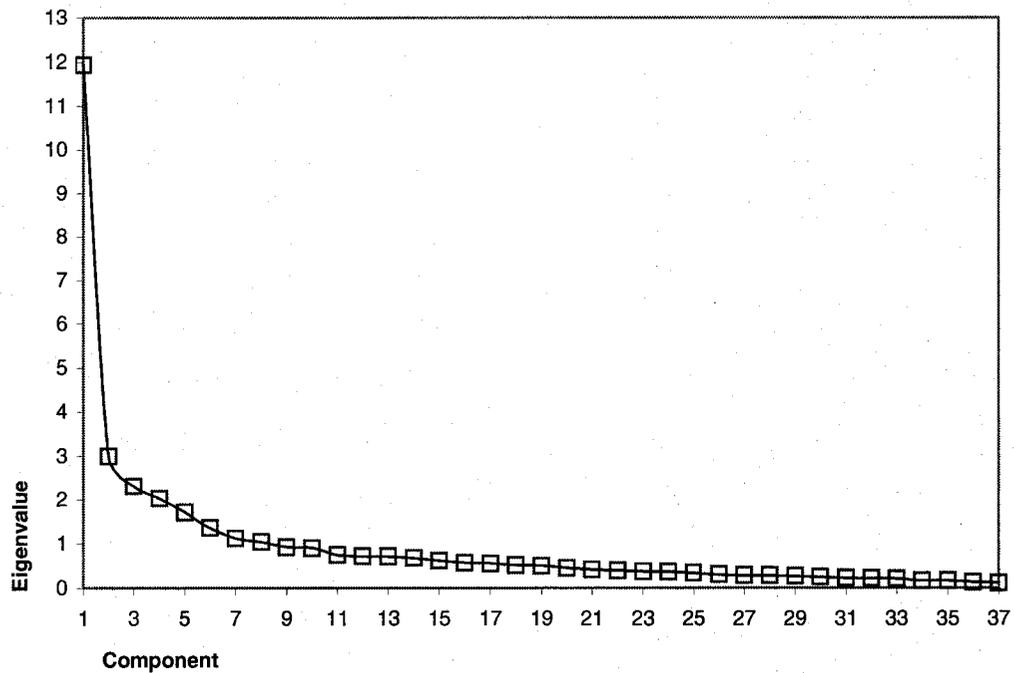
Participants completed their assigned selection procedure (cognitive ability, trait-based EI scale, ability-based EI scale, trait-based EI scale and cognitive ability test, or ability-based EI scale and cognitive ability test) on line. In the conditions that contained a cognitive ability test, the cognitive ability test was completed first, as it had to be timed for every participant. The experimenter timed the cognitive ability test, indicating to participants when they had two minutes left and when the 12-minute time period was completed. For the EI tests, participants were allowed to take as much time as was necessary to complete them.

After completing the testing procedure, participants completed the Applicant Reactions Questionnaire, which assessed their reactions to the selection methods used in their case. Participants completed the demographics form after completing the Applicant Reactions Questionnaire, and were given feedback about the purpose of the experiment before exiting the laboratory.

Applicant Reactions Questionnaire factor analysis

The Applicant Reactions Questionnaire (ARQ) included 10 subscales from three pre-existing applicant reactions measures. An exploratory factor analysis sought to determine if the ARQ measured 10 separate constructs (i.e., if it has 10 subscales). The factor loadings are presented in Table 1. Examination of the scree plot (Figure 1) suggested a one-factor solution. A forced one-component solution was conducted, resulting in a 24-item questionnaire. The one-component solution explains 32.3% of the variance. The 24-item questionnaire has an internal consistency coefficient of .95.

Figure 1.
Scree plot for factor analysis of Applicant Reactions Questionnaire.



Data Analysis

Applicant reactions differences were investigated based on the applicants' total ARQ scores (i.e., the sum of the 24 items determined through the exploratory factor analysis to be in the one-factor solution). The total ARQ scores were analysed using a 2 (occupation description) x 5 (testing procedure) analysis of variance (ANOVA). Before testing the hypotheses, the data were screened to identify data entry errors, missing data, outliers, and violations of assumptions. No outliers or data entry errors were identified. The data did not violate the assumptions of ANOVA (homogeneity of variance; normality). As the total Applicant Reaction Questionnaire scores were necessary for conducting the analyses, listwise deletion was used to handle missing data (resulting in applicants with missing item responses being left out of the analyses).

Results

The manipulation of EI/non EI relatedness of the occupation descriptions given to participants was successful. There was a significant difference between EI/non EI relatedness conditions for the manipulation check question in the Applicant Reactions Questionnaire, $t(187) = 6.045$, $p < .01$. Participants in the EI-related occupation condition rated EI as being more important to successful performance in that occupation ($M = 3.86$, $SD = .928$) than did participants in the non-EI related occupation condition ($M = 2.97$, $SD = 1.09$). Participants in both the EI-related ($M = 3.79$, $SD = .878$) and the non EI-related ($M = 3.78$, $SD = 0.89$) occupation conditions did not differ in their assessment of the importance of cognitive ability to successful performance, $t(187) = .064$, $p = .949$.

Table 1. *Factor analysis on Applicant Reactions Questionnaire*

| Items | Factor 1 |
|---|-------------|
| 1. I did not understand what the selection method had to do with the job. (Reverse Coded) | .58 |
| 2. I could not see any relationship between the selection method and what is required on the job. (Reverse Coded) | .52 |
| 3. It would be obvious to anyone that the selection method is related to the job. | .65 |
| 4. The actual content of the selection method was clearly related to the job. | .58 |
| 5. There was no real connection between the selection method that I completed and the job. (Reverse Coded) | .57 |
| 6. Failing to pass the selection method clearly indicates that you can't do the job. | .59 |
| 7. I am confident that the selection method can predict how well an applicant will perform on the job. | .78 |
| 8. My performance on the selection method was a good indicator of my ability to do the job. | .73 |
| 9. Applicants who perform well on this type of selection method are more likely to perform well on the job than applicants who perform poorly on this type of selection method. | .69 |
| 10. The employer can tell a lot about the applicant's ability to do the job from the results of the selection method. | .72 |
| 11. There is nothing I can do to improve my performance on the selection method. (Reverse Coded) | .06 |
| 12. Completing the selection method gave me clear information on my strengths and weaknesses. | .57 |
| 13. After completing the selection method it was clear to me what I needed to do to improve my performance. | .44 |
| 14. I am confident that I would improve my performance on the selection method if given another opportunity. | .23 |
| 15. I have no idea as to what I can do to improve my performance on the selection method. (Reverse Coded) | .29 |
| 16. I enjoyed the selection method to a great degree. | .63 |
| 17. I would look forward to completing the same type of selection method in the future. | .73 |
| 18. After I finished the selection method it was clear to me how well I performed. | .50 |
| 19. I knew exactly on what aspects of the selection method I performed well and poorly. | .30 |
| 20. Anyone who went through the selection method would know clearly how well or how poorly they did. | .30 |
| 21. I could really show my skills and abilities through this selection method. | .69 |
| 22. This selection method allowed me to show what my job skills are. | .71 |
| 23. This selection method gives applicants the opportunity to show what they can really do. | .71 |
| 24. I was able to show what I can do with this selection method. | .72 |
| 25. The content of the selection method did not appear to be prejudiced. | .43 |
| 26. The selection method itself did not seem too personal or private. | .30 |
| 27. The content of the selection method seemed appropriate. | .70 |
| 28. This selection method is a logical one for identifying candidates for this occupation. | .81 |
| 29. This selection method will detect my importance qualities, differentiating me from others. | .74 |
| 30. This selection method is impersonal and cold. (Reverse Coded) | .53 |
| 31. Employers have a right to obtain information from applicants using this method. | .46 |
| 32. This method invades personal privacy. (Reverse Coded) | .26 |
| 33. The Maritime School Board would be a good employer to work for. | .41 |
| 34. In general, the pay is good in this occupation. | .20 |
| 35. There are good chances for advancement in this occupation. | .20 |
| 36. How would you rate the effectiveness of this method for identifying qualified people for this occupation? | .78 |
| 37. If you did not get the job based on this selection method, what would you think of the fairness of this method? | .60 |

Hypothesis Testing - Total ARQ Score

The descriptive statistics for Applicant Reactions Questionnaire (ARQ) total scores for EI and non-EI related occupations, each of the five testing procedures, and each of the five testing procedures separated by EI and non-EI related occupations are presented in Table 2. The possible Applicant Reactions Questionnaire total scores range from 24 to 120, with a higher score indicating more positive reactions to the selection procedure.

Table 2.
Means, SDs, and Ns of the total Applicant Reactions Questionnaire scores for EI and non-EI occupations and testing procedures

| | Non-EI Occupation | | | EI Occupation | | | All Occupations | | |
|-------------------------------|-------------------|-------|----|---------------|-------|----|-----------------|-------|-----|
| | Mean | SD | N | Mean | SD | N | Mean | SD | N |
| Cog. Ability | 57.74 | 15.42 | 19 | 53.53 | 14.38 | 19 | 55.63 | 14.86 | 38 |
| MSCEIT | 64.84 | 14.63 | 19 | 67.29 | 17.95 | 17 | 66.00 | 16.09 | 36 |
| EQ-i | 64.80 | 15.83 | 20 | 80.00 | 16.69 | 20 | 72.40 | 17.81 | 40 |
| Cog. Abil. + MSCEIT | 65.00 | 17.92 | 20 | 65.00 | 13.85 | 19 | 65.00 | 15.86 | 39 |
| Cog. Abil. + EQ-i | 71.42 | 12.53 | 19 | 69.91 | 15.47 | 22 | 70.61 | 14.03 | 41 |
| All testing procedures | 64.76 | 15.68 | 97 | 67.36 | 17.60 | 97 | 66.06 | 16.67 | 194 |

A 2 (occupation description) x 5 (testing procedure) analysis of variance (ANOVA) was used to test for differences among the participants' Applicant Reactions Questionnaire total scores. The results for testing procedure, occupation description, and the interaction between testing procedure and occupation description are presented below.

Testing Procedure

There was a significant main effect for testing procedure, $F(4,184) = 6.88$, $p < .001$. Post hoc analyses (Tukey's HSD) revealed that applicant reactions to the

cognitive ability test ($M = 55.63$, $SD = 14.86$) were significantly more negative than applicant reactions to the trait-based EI scale ($M = 72.40$, $SD = 17.81$, $p < .001$), the ability-based EI scale ($M = 66.00$, $SD = 16.09$, $p = .037$), and the trait-based EI scale paired with the cognitive ability test ($M = 70.61$, $SD = 14.03$, $p < .001$). There was no significant difference between reactions to the ability-based EI scale and the trait-based EI scale, thus not supporting the first hypothesis. There was no significant difference between applicant reactions to the EI scales and the EI scales paired with the cognitive ability test, thus not supporting Hypothesis 3a. Hypothesis 3b is partially supported by these results – applicants who completed the trait-based EI scale and the cognitive ability test had significantly more positive reactions than those who completed the cognitive ability test only.

Occupation Description

The main effect for occupation description was not significant ($F = 1.14$, ns.). Overall, applicants who were given the description for the non EI-related occupation did not react more negatively to the selection procedure compared to those given the description for the occupation that required EI. However, there was a significant difference in reactions to the trait-based EI scale (EQ-*i*) between applicants who were given the description for the non EI-related occupation ($M = 64.80$, $SD = 15.83$) and the EI-related occupation ($M = 80.00$, $SD = 16.69$), $t(38) = 2.96$, $p = .005$. Hypothesis 2 is only partially supported by these results.

Interaction: Occupation Description x Testing Procedure

There was no significant overall interaction between occupation description and testing procedure ($F = 2.34$, ns.). However, there was a significant difference in reactions to the testing procedures in the EI-related occupation condition ($F(4, 92) = 7.19$, $p <$

.001). Post hoc analyses (Tukey's HSD) revealed that the reactions to the cognitive ability test ($M = 53.53$, $SD = 14.38$) were significantly more negative than the reactions to the trait-based EI scale ($M = 80.00$, $SD = 16.69$, $p < .001$), and the trait-based EI scale paired with the cognitive ability test ($M = 69.91$, $SD = 15.47$, $p = .011$).

Discussion

This study investigated applicant reactions to the use of ability- and trait-based EI scales as selection methods for EI-related and non-EI-related occupations and the effect that perceived test utility has on applicants' reactions to the selection procedures. Overall, none of the testing conditions in this study received exceptionally positive reactions. The testing conditions that contained an EI scale received scores on the Applicant Reactions Questionnaire ranging from 64.8 to 80.0, out of a possible 120 (with higher scores indicating more positive reactions). These results are not surprising due to the nature of the questions in each test. The trait-based EI scale is correlated with, and contains items similar to, personality inventories, which have previously been found to create negative reactions among job applicants (Rosse et al., 1994; McFarland, 2003). The ability-based EI test contains items that applicants may not feel are appropriate for employment selection; these items include asking applicants to indicate how much feelings are expressed in pictures of inanimate objects and artistic designs.

Contrary to the first hypothesis, the overall difference between applicant reactions to the trait-based EI scale (EQ-i) and the ability-based EI Scale (MSCEIT) was not significant. Previous research on EI scales (e.g., Brackett et al., 2006; Goldenberg et al., 2006) has found that the ability-based and trait-based scales are likely assessing different constructs; therefore, it is surprising that applicants did not react differently to the two scales. Applicants appear to have moderate reactions to measures of emotional

intelligence, regardless of the format or types of questions asked (i.e., self-report vs. maximum performance).

The second hypothesis, which proposed that there would be differences in applicant reactions based on the EI-relatedness of the occupation, received partial support from the applicant reactions to the trait-based EQ-i. Not surprisingly, the applicants who received the non-EI-related Computer Systems Analyst and Accounting Clerk occupations reacted more negatively to the use of the EQ-i for selection purposes than those who received the EI-related Elementary School Teacher and Counselor occupations. These results are in line with previous research on applicant reactions where the perceived job-relatedness of a selection method had a possible effect on applicant reactions to that selection method (Jones, 1991; Thibodeaux et al., 2003; Van Vianen et al., 2004). Applicant reactions to the other EI selection procedures – MSCEIT, MSCEIT and cognitive ability test, and EQ-i and cognitive ability test – did not across occupation descriptions. That is, the job-relatedness of the methods did not strongly influence the applicants' reactions. Hypothesis 3a was not supported by the findings of this study – applicant reactions to the EI scales did not become more positive when the scales were paired with the cognitive ability test. These results differ from Rosse et al.'s (1994) study on reactions to personality inventories, where reactions to the personality test became more positive when paired with a cognitive ability test. The differences between this study and Rosse et al. (1994) may be due to the ability-based MSCEIT not being correlated with measures of personality (Caruso et al., 2002). The dissimilarities between the MSCEIT and personality inventories may explain why the reactions to the scale did not improve by adding a cognitive ability test as happened in the case of adding cognitive ability tests to personality measures (Rosse et al., 1994). The differences from the Rosse

et al. (1994) study are more surprising when it come to the trait-based EI scale. A number of scales in the EQ-i are significantly are correlated with multiple dimensions in personality inventories (O'Connor et al., 2003), which would seemingly imply that the addition of a cognitive ability test to the EQ-i would produce similar results to Rosse et al. (1994). The differences may also be due to the fact that different items were used to assess reactions, that the applicants in Rosse et al.'s (1994) study were actual job applicants, and that the types of jobs being applied for differed between the two studies (seasonal entry-level jobs as opposed to occupations that required a university education). Even though the addition of a cognitive ability test to the EI scales did not produce the hypothesized results, they provide some insight into how applicants may respond to EI scales as part of a test battery. The addition of the cognitive ability test did not have a negative impact on either of the two EI scales. These results that if a job analysis indicates that a cognitive ability test should be part of a test battery, it is unlikely to have a negative impact on any EI measure that might be part of the same test battery.

Applicant reactions to the cognitive ability test were significantly more negative than those for the trait-based EI scale paired with the cognitive ability test (but not significantly more negative than the reactions to the ability-based EI scale paired with the cognitive ability test); this result partially supports Hypothesis 3b. Other studies have also found that applicants have negative reactions to cognitive ability tests used for selection purposes (Macan et al., 1994; Terpstra et al., 1999). In terms of comparison with reactions to the EI scales, the cognitive ability test used in this study has fewer questions than the two EI scales, and was timed – both of which may have caused the more negative reactions to its use as part of the selection process. Applicants may have felt there were not enough questions in the cognitive ability test to accurately assess their abilities, or that

the timed aspect of the test did not allow them enough time to show their abilities for the target occupation. Ployhart et al. (2003) stated that applicants tend to have strong negative reactions to cognitive ability tests when the use does not seem to be job-related. This does not appear to explain the negative reactions in the current study as the cognitive ability test received a mean rating between "Average" and "High" importance for successful performance for all occupations. The applicants indicated that they thought cognitive ability was an important ability for these occupations, but they may have felt that the test itself was not job-related leading to their negative reactions.

Implications for EI in selection procedures

Some researchers (Cadman et al., 2001; Freshman et al., 2001; Buchler et al., 2006) have suggested that EI scales be used for recruitment and selection however, the current results suggest employers should exercise caution in using EI tests in selection. Employers should base a test's use on a job analysis (e.g., Hackett et al, 2004) and provide applicants with an explanation why the test is being used (e.g., Ployhart, Ryan, & Bennett, 1999).

Trait-based EI: Applicants may be more likely to accept the use of trait-based EI measures if they perceive them as job related. Thus, due to potential applicant reactions (and potential legal problems), employers should ensure that the job involves those aspects of EI that trait-based measures are said to assess. The addition of the cognitive ability test to a trait-based EI scale is not likely to have any impact on applicant reactions to the EI test. Thus, if a job analysis finds that both cognitive ability and trait-based EI are related to successful job performance, the addition of the cognitive ability test to the EI scale will not hurt applicant reactions. But, employers will not benefit by adding the cognitive ability to the trait-based EI scale if they are only adding it to try to increase

positive reactions to the EI scale (contrary to Rosse et al's (1994) findings with personality inventories and cognitive ability tests).

Ability-based EI: The applicant reactions to the ability-based EI scale in this study suggest that applicants will be moderately positive to the scale regardless of the type of job they are applying for. The job-relatedness of the scale did not create significant differences in applicant reactions. When the ability-based EI scale was paired with the cognitive ability test it did not increase positive reactions to the ability-based EI scale. This suggests that the addition of the MSCEIT to a test battery may not improve applicant reactions to the EI measure. To increase positive reactions to both types of EI scales, employers may wish to explain to applicants why they are using the scale as part of the hiring process. For example, an employer could tell applicants that a job analysis determined that the elements assessed by the scale are necessary for successful performance in the job.

Implications for assessing applicant reactions

The Applicant Reactions Questionnaire used in this study was created from previous scales used in applicant scale reaction research. The factor analysis of those previous scales suggested there was one overall scale, although the scree plot in Figure 1 may argue otherwise. Nonetheless, the factor analysis led to dropping the Organizational Attractiveness and the Likelihood of Improvement items from Smither et al.'s (1993) study. The items in those scales may have been seen as inappropriate because applicants in this study were not applying for a real occupation, and thus did not have any contact with anyone from an actual hiring organization. The analysis of the items used to assess applicant reactions in this study show that it is necessary to investigate the effectiveness of the items used to assess applicant reactions. What is clear here is that the nature of the

questions may influence the nature of the applicants' responses to a selection method. Simply creating items to use to assess applicant reactions based on a model another researcher created, or using items another researcher used to assess reactions, without determining if they are appropriate to use, may lead researchers to come to accurate conclusions about applicant reactions to a particular selection method that are not correct. What is needed is an applicant reaction scale and this study provides some guidance toward that effort.

Without using the same questionnaire items to assess reactions to interviews, references, personality tests, etc., it is nearly impossible to determine how EI scales stack up to others methods in terms of applicant reactions. The differences in the results between this study and other studies on applicant reactions may be due to the differences in the questions used to assess those reactions. Similarly, differences in findings across previous studies may be due to the differences in those applicant reaction measures.

Limitations and future research

This controlled laboratory study is a good beginning for research on applicant reactions to EI scales in selection. The controlled environment allowed for specific manipulations of testing procedure and occupation description to be conducted. Also, the participants' reactions were assessed after they actually completed the selection methods, not after simply reading a description of the methods. Marcus (2003) found that applicant reactions to a method differ when they read a description of the method compared to when they actually complete it. Having participants actually complete the EI scales likely produced results more similar to what might be expected from real-world applicant reactions.

The participants in this study were university students; thus, they may complete similar selection methods when they apply for occupations; therefore their reactions may be more similar to actual job applicants. However, the students in this study were not actually applying for the positions nor did they face receiving a selection decision based on their performance on the selection methods. If a job applicant were not chosen for a position based on their performance on an ability-based or trait-based EI scale, their reactions to the selection methods might differ from those found in the current study. In order to increase external validity, future research on applicant reactions to EI scales in selection procedures should investigate the reactions of actual job applicants applying for various occupations. This could be done within an existing organization or with university students who apply for an on campus job that the researcher advertises (e.g., Gilliland, 1994). Future research should also look at the potential differences in reactions between those who are hired or not hired for the position.

Additionally, the participants in this study may not have been motivated to perform well on the selection methods, as they were not applying for a real occupation. The participants in this study were compensated with bonus credits for a psychology course in which they were already enrolled, and all participants received the credits regardless of how they performed in the study. Future research on applicant reactions to EI scales should manipulate applicant motivation by awarding some applicants with a prize (e.g., money) or with the “job” (i.e., tell them they would have been hired for the job based on their performance).

Another consideration that should be made is that more than half of the undergraduate participants in this study were female. While no gender differences in reactions to the selection methods were found in this study, the number of males and

females who participated in this study may not be an accurate representation of gender proportions in the job applicant pool. Representative gender proportions should be a consideration in future research in this area.

In addition to assessing the reactions of actual job applicants, more detailed information on the reactions and their cause/root should be gathered. Future research could include specific questions about what applicants like and dislike about each EI measure. In particular, applicants could be asked about whether or not they feel there are “right” or “wrong” answers to the questions in EI scales. Comparing applicant reactions between EI scales and selection methods known to produce highly positive reactions (e.g., structured interview) and highly negative reactions (e.g., graphology) would provide useful information in terms of where EI scales sit in the ‘Applicant Reactions Hierarchy’.

Conclusion

Further research on applicant reactions to the use of EI scales is needed before employers can be fully informed on how applicants will respond to their use. In particular, research with actual job applicants applying for occupations and comparisons of reactions to EI scales with reactions to other selection methods, such as interviews. Even though organizations and researchers have suggested that EI would be useful for recruitment and selection, employers should consider the potential reactions applicants may have to EI scales before implementing them. Negative reactions to selection methods can affect applicants’ views of the organization, their decisions to continue with the hiring process, and whether or not they would accept a position if offered one (Macan et al., 1994), or whether they would pursue legal action against an organization (Terpstra et al., 1999).

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Appendix A

Applicant Reactions Questionnaire

1. I did not understand what the selection method had to do with the job.

| | | | | |
|-------------------|----------|---------|-------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

2. I could not see any relationship between the selection method and what is required on the job.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

3. It would be obvious to anyone that the selection method is related to the job.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

4. The actual content of the selection method was clearly related to the job.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

5. There was no real connection between the selection method that I completed and the job.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

6. Failing to pass the selection method clearly indicates that you can't do the job.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

7. I am confident that the selection method can predict how well an applicant will perform on the job.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

8. My performance on the selection method was a good indicator of my ability to do the job.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

9. Applicants who perform well on this type of selection method are more likely to perform well on the job than applicants who perform poorly on this type of selection method.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

10. The employer can tell a lot about the applicant's ability to do the job from the results of the selection method.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

11. There is nothing I can do to improve my performance on the selection method.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

12. Completing the selection method gave me clear information on my strengths and weaknesses.

| | | | | |
|-------------------|----------|---------|-------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

13. After completing the selection method it was clear to me what I needed to do to improve my performance.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

14. I am confident that I would improve my performance on the selection method if given another opportunity.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

15. I have no idea as to what I can do to improve my performance on the selection method.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

16. I enjoyed the selection method to a great degree.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

17. I would look forward to completing the same type of selection method again in the future.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

18. After I finished the selection method it was clear to me how well I performed.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

19. I knew exactly on what aspects of the selection method I performed well and poorly.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

20. Anyone who went through the selection method would know clearly how well or how poorly they did.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

21. I could really show my skills and abilities through this selection method.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

22. This selection method allowed me to show what my job skills are.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

23. This selection method gives applicants the opportunity to show what they can really do.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

24. I was able to show what I can do on this selection method.

| | | | | |
|-------------------|----------|---------|-------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |

25. The content of the selection method did not appear to be prejudiced.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

26. The selection method itself did not seem too personal or private.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

27. The content of the selection method seemed appropriate.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

28. This selection method is a logical one for identifying candidates for this occupation.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

29. This selection method will detect my important qualities, differentiating me from others.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

30. This selection method is impersonal and cold.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

31. Employers have a right to obtain information from applicants using this method.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

32. This method invades personal privacy.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

33. The Maritime School Board would be a good employer to work for.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

34. In general, the pay is good in this occupation.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

35. There are good chances for advancement in this occupation.

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

36. How would you rate the effectiveness of this method for identifying qualified people for this occupation?

| | | | | |
|-----------------------|-------------|---------|-----------|---------------------|
| 1 | 2 | 3 | 4 | 5 |
| Extremely Ineffective | Ineffective | Neutral | Effective | Extremely Effective |

37. If you did not get the job based on this selection method, what would you think of the fairness of this method?

| 1 | 2 | 3 | 4 | 5 |
|------------------|--------|---------|------|----------------|
| Extremely Unfair | Unfair | Neutral | Fair | Extremely Fair |

38. Mayer and Salovey (1990) define emotional intelligence as the ability to monitor and discriminate among one's own feelings and emotions, as well as the feelings and emotions of others, and to use this information to guide one's thoughts and actions.

Please indicate how important you think emotional intelligence is for successful performance in this occupation.

| 0 | 1 | 2 | 3 | 4 | 5 |
|---------------------------|-----------------------|----------------|--------------------|-----------------|--------------------|
| Ability is not applicable | Very minor importance | Low importance | Average Importance | High Importance | Extreme Importance |

39. Cognitive ability is defined as "the capacity to perform higher mental processes of reasoning, remembering, understanding, and problem solving."

Please indicate how important you think cognitive ability is for successful performance in this occupation.

| 0 | 1 | 2 | 3 | 4 | 5 |
|---------------------------|-----------------------|----------------|--------------------|-----------------|--------------------|
| Ability is not applicable | Very minor importance | Low importance | Average Importance | High Importance | Extreme Importance |

Appendix B

Demographics Form

Please answer the following demographic questions. This form will be stored separately from your signed consent form.

(1) Gender: _____

(2) Age: _____

(3) Year of University: _____

(4) What is your major?: _____

(5) Are you currently employed: _____

(6) If currently employed:

What is your current job? _____

How many hours/week do you work? _____

Appendix C
Occupation Descriptions

Occupation Title: Accounting Clerk
Company Name: Maritime School Board
Location: Halifax, N.S.

The Maritime School Board, located in Halifax, Nova Scotia, employs teachers, administrators, and support staff for 25 schools. Administrators and support staff are also employed in the School Board office.

Job Description:

The Accounting Clerk position involves computing, classifying, and recording numerical data to keep financial records complete.

- Operate computers programmed with accounting software to record, store, and analyze information.
- Debit, credit, and total accounts on computer spreadsheets and databases, using specialized accounting software
- Calculate, prepare, and issue bills, invoices, account statements, and other financial statements according to established procedures.
- Compile statistical, financial, accounting or auditing reports and tables pertaining to such matters as cash receipts, expenditures, accounts payable and receivable, and profits and losses.

Requirements:

- 3+ years experience
- A relevant university degree
- High level of organizational ability and attention to detail
- Excellent time management skills

This is a permanent, full-time position, and salary is commensurate with experience.

Occupation Title: Computer Systems Analyst

Company Name: Maritime School Board

Location: Halifax, N.S.

The Maritime School Board, located in Halifax, Nova Scotia, employs teachers, administrators, and support staff for 25 schools. Administrators and support staff are also employed in the School Board office.

Job Description:

The Computer Systems Analyst position involves analyzing user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities and workflow.

- Provide staff and users with assistance solving computer related problems, such as malfunctions and program problems.
- Test, maintain, and monitor computer programs and systems, including coordinating the installation of computer programs and systems.
- Coordinate and link the computer systems within the organization to increase compatibility and so information can be shared.
- Determine computer software or hardware needed to set up or alter system.

Requirements:

- 3+ years experience
- A relevant university degree
- High level of organizational ability and attention to detail
- Excellent time management skills

This is a permanent, full-time position, and salary is commensurate with experience.

Occupation Title: Counselor
Company Name: Maritime School Board
Location: Halifax, N.S.

The Maritime School Board, located in Halifax, Nova Scotia, employs teachers, administrators, and support staff for 25 schools. Administrators and support staff are also employed in the School Board office.

Job Description:

The Counselor position involves assessing and evaluating individuals' problems and providing counseling services to assist individuals in achieving more effective personal, social, educational, and vocational development and adjustment.

- Counsel individuals, groups, or families to help them understand problems, define goals, and develop realistic action plans.
- Collect information about individuals or clients, using interviews, case histories, observational techniques, and other assessment methods.
- Develop therapeutic and treatment plans based on clients' interests, abilities, and needs.
- Consult with other professionals to discuss therapies, treatments, counseling resources, or techniques, and to share occupational information.

Requirements:

- 3+ years experience
- A relevant university degree
- High level of organizational ability and attention to detail
- Excellent time management skills

This is a permanent, full-time position, and salary is commensurate with experience.

Occupation Title: Elementary School Teacher

Company Name: Maritime School Board

Location: Halifax, N.S.

The Maritime School Board, located in Halifax, Nova Scotia, employs teachers, administrators, and support staff for 25 schools. Administrators and support staff are also employed in the School Board office.

Job Description:

The Elementary School Teacher position involves teaching pupils at the elementary level basic academic, social, and other formative skills.

- Plan and conduct activities for a balanced program of instruction, demonstration, and work time that provides students with opportunities to observe, question, and investigate.
- Observe and evaluate students' performance, behavior, social development, and physical health.
- Instruct students individually and in groups, using various teaching methods such as lectures, discussions, and demonstrations.
- Guide and counsel students with adjustment and/or academic problems, or special academic interests.

Requirements:

- 3+ years experience
- A relevant university degree
- High level of organizational ability and attention to detail
- Excellent time management skills

This is a permanent, full-time position, and salary is commensurate with experience.



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