THESIS

THE INFLUENCE OF ABILITY TO IDENTIFY CRITERIA ON FEEDBACK ACCEPTANCE

Submitted by

Angela Martin

Department of Psychology

In partial fulfillment of the requirements

For the Degree of Master of Science

Colorado State University

Fort Collins, Colorado

Fall 2013

Master's Committee:

Advisor: Alyssa Mitchell Gibbons

Chris A. Henle Matthew G. Rhodes George C. Thornton III Copyright by Angela Kate Martin 2013

All Rights Reserved

ABSTRACT

THE INFLUENCE OF ABILITY TO IDENTIFY CRITERIA ON FEEDBACK ACCEPTANCE

The criteria used in selection methods such as interviews, integrity tests and assessment centers are often unknown to candidates seeking employment. The individual difference variable of ability to identify criteria (ATIC) represents the degree to which some candidates are better able to correctly identify the situational demands in an ambiguous situation (Kleinman, 1993). Prior research has shown that ATIC is related to performance in the selection method and cognitive ability (Melchers et al., 2009).

We tested whether two measures of candidates' ability to identify criteria (ATIC) in an assessment center exercise were related to cognitive ability, social intelligence, self-monitoring and feedback acceptance. Contrary to prediction, we found minimal relationships among measures, raising interesting questions regarding the nomological net and construct validity of ATIC measures.

TABLE OF CONTENTS

ABSTRACT	ii
TABLE OF CONTENTS	iii
LIST OF FIGURES	v
LIST OF TABLES	vi
INTRODUCTION	1
ABILITY TO IDENTIFY CRITERIA	2
MEASUREMENT OF ATIC	4
DISTINCTION BETWEEN ATIC AND TRANSPARENCY OF DIMENSIONS	7
DISTINCTION BETWEEN ATIC AND COGNITIVE ABILITY	9
DISTINCTION BETWEEN ATIC AND SOCIAL INTELLIGENCE	10
DISTINCTION BETWEEN ATIC AND SELF-MONITORING	11
FEEDBACK ACCEPTANCE	13
CURRENT STUDY	16
HYPOTHESES	16
METHOD	19
PARTICIPANTS	19
PROCEDURE	19
DIMENSIONS	20
ASSESSOR AND ASSESSOR TRAINING	22
MATERIALS	22
MEASURES	23
RESULTS	28
MEASUREMENT AND SCORING OF ATIC	28

CORRELATES OF ATIC	30
PREDICTING PERFORMANCE AND FEEDBACK ACCEPTANCE	31
DISCUSSION	34
LACK OF MOTIVATION?	34
PROBLEMATIC LGD?	35
MEASUREMENT OF ATIC?	35
ATIC AND PERFORMANCE	37
MEASUREMENT OF PERFORMANCE	39
COGNITIVE ABILITY	39
CONTRIBUTIONS	39
CONCLUSIONS	42
REFERENCES	51
APPENDIX A	56
APPENDIX B	60
APPENDIX C	66
APPENDIX D	68
APPENDIX E	70

LIST OF FIGURES

FIGURE 1	43
FIGURE 2	44
FIGURE 3	45

LIST OF TABLES

TABLE 1	46
TABLE 2	47
TABLE 3	
TABLE 4	
TABLE 5	50

Introduction

Ability to identify criteria (ATIC) has been proposed as an individual difference variable representing the degree to which individuals can correctly identify the situational demands in an ambiguous setting (Kleinmann, 1993). ATIC has been shown to be positively related to performance in a number of selection settings, such as assessment centers, interviews and integrity tests (Kleinmann, 1993; König, Melchers, Kleinman, Richter, & Klehe, 2007; König, Melchers, Kleinman, Richter, König, & Klehe, 2004; Melchers, et al., 2009). That is, people who are able to identify what they are being evaluated on, in a variety of selection settings, perform better in that area than people who are unable to correctly identify what they are being evaluated on.

Although ATIC appears to be reliably predictive across selection contexts, it remains somewhat unclear exactly what ATIC is and how it relates to other constructs. Recently, research has begun to focus on expanding the theoretical understanding of ATIC and how it fits in the nomological net of workplace behavior (König et al., 2006; Melchers et al., 2009). Simply being told what is being evaluated (transparency of criteria) is not the same as the ability to identify the evaluation criteria. Therefore, ATIC is considered an individual ability, not a component of any particular situation. Furthermore, König and colleagues (2007) argue that ATIC is conceptually distinct from, but related to, cognitive ability, self-monitoring, and social intelligence. However, the latter two relationships have yet to be empirically tested.

Beyond performance in selection contexts, ATIC is hypothesized to influence performance on the job, especially with regard to interpersonal interactions (Melchers et al., 2009). If ATIC is a real ability applicable in the workplace, it may have relevance for other organizational outcomes as well. Yet, the influence of ATIC on other organizational outcomes

has not been fully explored. One area where ATIC may be usefully applied is feedback acceptance. Feedback is a ubiquitous and important component of any organizational setting. Unfortunately, feedback is often discarded or explained away (Kluger & DeNisi, 1996). Often, feedback reactions are not only contingent on the actual feedback, but how well the feedback matches with the individual's self-view of their performance (Bell & Arthur, 2008). Individuals often have conceptual models of the necessary goals or standards for effective performance. To the degree that their model is discrepant with the feedback received, participants will either be motivated to change or will attempt to discount the feedback (Atwater & Brett, 2005). A better understanding of how ATIC and feedback acceptance are related would be useful both theoretically and practically. If ATIC also translates into the ability to recognize one's own performance in relation to the evaluation standards, it is possible that greater feedback acceptance would be related to ATIC.

In this study, I aim to extend the nomological net of the ATIC construct by examining ATIC in relation to two new correlates, self-monitoring and social intelligence, and a new outcome, feedback acceptance. In the next several sections, I will provide an overview of research on ATIC to date and explain the rationale behind each of the proposed hypotheses. *Ability to Identify Criteria*

Kleinmann (1993) originally conceptualized Ability to Identify Criteria (ATIC) as the extent to which participants are able to recognize the dimensions they are being evaluated on in assessment centers. He argues that it is often difficult for participants in assessment centers to discern which dimensions are being assessed. When the criteria for success are ambiguous, some participants seem more able than others to grasp which characteristics and behaviors are being evaluated. Kleinmann tested whether this ability would lead to better performance on assessment

center exercises and concluded that when participants were able to correctly identify a dimension in a given exercise, they performed better on that dimension.

The failure to recognize what appropriate behavior is called for may limit participants' ability to do well because they may incorrectly assume certain ineffective behaviors are desirable. For example, one participant may incorrectly believe that persuasion is being assessed in an exercise measuring critical thinking. Based on his assessment of the criteria, the participant may believe he needs to unequivocally defend his initial stance, and fail to demonstrate relevant behaviors such as considering possible limitations to his position. Conversely, another participant in the same situation might accurately identify critical thinking as the dimension being assessed. She might therefore guess that weighing drawbacks as well as benefits to a solution is a desirable behavior and will therefore receive better ratings on the relevant dimension.

In Kleinmann's (1993) initial study, as well as subsequent studies, no participant was able to correctly identify all the dimensions evaluated and there was significant variance between participants in their ability to correctly gauge the dimensions in each exercise. He found that across three measures of assessment center performance (a sum of ratings on dimensions, an estimation of managerial potential and a decision about whether or not participants would be given a job), all were positively correlated with the number of correctly recognized dimensions.

Recent research is expanding the contexts in which ATIC is studied, based on the underlying argument that participants who possess greater ATIC perform better in situations where criteria are relatively nontransparent than do participants who lack such ability. Melchers et al. (2004) found that ATIC in a structured interview predicted interviewee's performance in the interview. König et al. (2006) found that ATIC in an integrity test predicted participants'

integrity scores. This effect has also been shown to be predictive across personnel situations, such that ATIC in an interview was related to performance in an assessment center and vice versa (König et al., 2007).

Measurement of ATIC.

To understand what ATIC is, it is important to understand how it is measured. A similar procedure for measuring ATIC has been utilized across several studies (Kleinmann, 1993; König et al., 2006; König et al., 2007; Melchers et al., 2004; Melchers et al., 2009). Generally, participants complete numerous assessment center exercises over the course of one or two days. After each exercise, they are asked to complete a questionnaire asking what they thought a certain exercise was intended to assess. This component is relatively unstructured, with no boundaries or dimensions provided to the participants. It is emphasized that this procedure is separate from the evaluation during the exercise. That is, what the participants provide as hypotheses will not influence their performance ratings on any of the exercises. After participants have generated their own hypotheses, they are provided with a list of dimensions commonly used in assessment centers. Each dimension is clearly defined and behavioral examples are included for each dimension. Some of the dimensions provided are those that were actually used to evaluate performance in the exercise and some are distractors that were not actually used to evaluate performance. The participants are asked to evaluate their original responses in comparison with the dimensions provided. At this point they do not know which, if any, of the dimensions were actually used. The participants are asked to measure the correspondence of their hypothesis to the provided dimensions on a scale from 1 (fits somewhat) to 4 (fits completely). In other words, if a participant hypothesizes that teamwork was evaluated and "Teamwork" is provided as a dimension, she would choose 4, fits completely. Participants

can indicate that a hypothesis did not correspond to any dimension as well. For example, if a participant hypothesizes that teamwork was evaluated and "Works Independently" is provided as a dimension, he would choose 0, does not fit. ATIC is calculated by averaging each correspondence score for the actual dimensions assessed.

This method has potential flaws. Participants might feel obligated to match an idea to every dimension. Likewise, they may match their ideas to dimensions that are not truly similar to their original hypotheses. However, the participants are the most knowledgeable regarding the intended meaning of their hypotheses. Therefore, it is sensible for them to match their answers. Because distractor dimensions are used, a higher score on ATIC would not result from participants universally matching their own hypotheses to the dimensions provided. Further, as evidenced in several studies, no participant was able to correctly identify all dimensions in all exercises (Kleinmann, 1993).

Recently, Christiansen and colleagues propose a simpler quantitative method for studying ATIC (Christiansen, et al. 2012). They studied ATIC across similar and dissimilar AC exercises and were concerned that the previous method of measuring ATIC limited the generalizability of ATIC. These researchers felt it was important for participants to correctly identify the criteria for success, but also important to identify dimensions that were not important, especially when making inferences about the stability of ATIC. In their study, to score highly on ATIC across all exercises, participants needed to successfully determine which dimensions were relevant and not relevant, while the demands for each exercise varied. For example, leadership was highly relevant in one exercise and candidates with high ATIC listed it as relevant. In another exercise, leadership was rated as not relevant and candidates with high ATIC listed it as not relevant.

In this new measurement method, after each exercise all participants receive a list of commonly used AC dimensions and their definitions. Participants then rank the three dimensions they think are most relevant in the exercise as well as the three dimensions they think are least relevant in the exercise. For each ranked dimension, participants receive points based on the relevancy of the dimension in a given exercise. Thus, a quantitative ATIC score is summed from the ranked dimensions for each exercise.

One of the key differences in this proposed method of study it that participants do not generate their own hypothesis of relevant dimensions. For example, if the person believes teamwork is relevant, but teamwork is not listed as a dimension, this method would not capture that information. While this may be considered a drawback, the overall process is simpler and more straightforward for both participants and researchers. Although this measurement method is novel, it should still capture the underlying ATIC construct. The main component, that participants are asked to identify the criteria (dimensions) necessary to perform well in the given exercise, is still there. Furthermore, it captures not only the ability to determine criteria for success, but also the ability to distinguish irrelevant dimensions.

I decided to use this method of measuring ATIC for several reasons. First, I thought it would be a more comprehensive way to measure ATIC. Second, the key researchers involved in the conceptualization of ATIC recommended this as a more straightforward method, as they found asking participants to generate hypotheses and match the correspondence level was sometimes cumbersome. However, to further explore the ATIC construct, I also decided to include an open-ended ATIC question, presented before the dimensions were presented.

Distinction between ATIC and Transparency of Dimensions

One could make the argument that participants who correctly identify the criteria they will be evaluated on perform better because they are able to purposefully demonstrate behavior relevant to those criteria. In a similar argument, one would expect that if dimensions are made transparent to participants, they would also be able to purposefully demonstrate relevant behavior. However, in two studies, Kolk, Born and van der Flier (2003) found no differences in performance between participants who were or were not told which dimensions they would be evaluated on. Using both student and working populations, they examined the impact of transparency on assessment center performance. In the transparent condition, participants were given information about the dimensions and examples of effective behavior. They did not find significant mean differences based on transparency for either students or actual job applicants.

Similarly, Kleinmann, Kuptsch, and Köller (1996) evaluated the effect of transparency and found no mean differences in performance from the transparent condition to the nontransparent condition, indicating that simply being told which dimensions are evaluated does not necessarily lead to improved performance. These authors also tested for knowledge of dimensions in the nontransparent condition as a manipulation check and again found that no participants were able to correctly identify all the dimensions in all the exercises.

Smith-Jentsch (2007) also evaluated the effect of making dimensions transparent in behavioral simulation. She argued that by making dimensions transparent, all participants would have equal opportunity to display relevant behaviors. In this way, transparency facilitates assessing maximal performance, as individuals are apt to show the desired trait to the best of their ability. She did note that participants cannot "fake" an ability they do not possess, but they are able to demonstrate it to a degree they might not have otherwise. She argued that when

evaluation criteria are unknown, the individual must determine the most effective way to behave in order to succeed, and that this is more representative of typical performance. In her first study, only one dimension was assessed. Participants in the transparent condition performed better than those in the nontransparent condition. However, in a second study with three dimensions assessed, no significant group differences occurred. Smith-Jentsch argued that the cognitive demand of attempting to display all of the dimensions suppresses the actual ability to do so. She also hypothesized that such impression management taxation was the reason Kolk et al. (2003) and Kleinmann, et. al (1996) found no group differences in transparent versus nontransparent conditions. If this is the case, it is unclear why individuals with greater ATIC are able to simultaneously recognize the appropriate behavior and demonstrate it without the cognitive fatigue found in Smith-Jentsch (2007).

In general, the research shows that making dimensions known to participants does not always increase performance on those dimensions (Kolk et al., 2003; Kleinmann, 1997; Smith-Jentsch, 2007;). However research does support an increase in performance with greater ability to identify criteria (Kleinmann, 1993; König et al., 2006; König et al., 2007; Melchers et al., 2004; Melchers et al., 2009). Taken together, this evidence suggests that participants who are able to correctly identify the dimensions might perform better for reasons other than simply knowing what behavior is desired. It seems the improvement is not solely due to extra knowledge of the evaluation criteria. Instead, it would suggest that the ability to "read" an otherwise ambiguous situation and determine what appropriate behavior is called for is the underlying mechanism for improvement (König et al., 2007; Melchers et al., 2009).

The theoretical development of ATIC has been somewhat lacking, with little empirical research defining what it is and how it is distinct from other abilities. As theorized, ATIC

represents more than the ability to "cheat the system" by faking desirable characteristics. ATIC represents the ability to make sense of complex situations and understand what behavior is required for success. In some ways, ATIC is similar to metacognitive skills. Metacognition refers to an individual's ability to think about their own thinking (Nelson, 1996). ATIC refers to an individual's ability to think about the situational demands of ambiguous situations. In this way, ATIC is conceptually similar to cognitive ability, as well as to social effectiveness characteristics such as social intelligence and self-monitoring. Yet ATIC, as described in existing research, is also somewhat distinct from such characteristics. In the following sections, I will discuss the similarities and differences between ATIC and each of these constructs, considering empirical evidence where possible.

Distinction between ATIC and Cognitive Ability

It is sometimes argued that performance in assessment centers (and other selection tests) is largely a function of cognitive ability (Schmidt & Hunter, 1998). Cognitive ability does seem to predict performance in assessment centers, particularly for more cognitively demanding dimensions such as problem solving (Collins et al., 2003; Shore, Thornton & Shore, 1990). In a meta-analysis of the correlates of AC performance, Collins et al. (2003) found that general mental ability was correlated at .65 with overall assessment ratings. Schmidt & Hunter (1998) found that assessment centers added only 2% in incremental validity over general mental ability measures, although other studies have shown that overall assessment center ratings do provide incremental predictive validity beyond cognitive ability (Dayan, Katen and Fox, 2002; Krause, Kersting, Heggestad, & Thornton, 2006).

In the same way researchers have attempted to differentiate assessment center performance from cognitive ability, Kleinmann and colleagues have hypothesized ATIC to be

more than a mere reflection of cognitive ability (König et al., 2007; Melchers et al., 2009). Research indicates that ATIC may be influenced by cognitive ability, but it has been shown to predict performance even after controlling for cognitive ability (König et al., 2007). ATIC has been shown to correlate with cognitive ability at about 0.30 and added 6-9% additional variance after cognitive ability (König et al., 2007; Melchers et al., 2009). ATIC might be related to cognitive ability, but it would seem that it is still providing unique information regarding participants' performance in assessment centers.

Distinction between ATIC and Social Intelligence

König et al. (2007) argued that ATIC might be related to a specific aspect of social intelligence. Social intelligence is a broad construct that is often used to refer to several aspects of interpersonal relations and is typically distinguished from cognitive ability. According to Zaccaro (2002), social intelligence generally includes being able to understand social situations and displaying appropriate behavior. He elaborates by describing social intelligence as "a set of attributes that enable highly intelligent individuals to (a) perceive and accurately interpret the intricacies of any social situation; (b) derive and select the appropriate behavioral responses that are likely to lead to success for oneself and for others to whom one is beholden, and finally (c) enact the selected social responses" (Zaccaro 2002, p. 38) Central to this idea is having adequate behavioral flexibility. Hooijberg (1996) conceptualized two variables necessary for successful behavioral flexibility. The first, behavioral repertoire, represents the breadth of behaviors available to an individual in any given situation. The greater the repertoire, the more options an individual may enact and the greater likelihood there will be some effective behavior available. The second, behavioral differentiation, refers to the ability to demonstrate the appropriate

behavior to the particular situation. In this way, behavioral differentiation utilizes the behavioral repertoire for the most effective results.

Social intelligence has also been studied in educational settings, with a focus to differentiate it from general intelligence. In their attempt to distinguish social intelligence from academic intelligence, Jones and Day (1997) delineated two cognitive aspects of social intelligence. Crystallized social knowledge refers to declarative and procedural knowledge about social events while social-cognitive flexibility refers to the ability to use social knowledge flexibly in novel problems. Thus, they made a distinction between knowledge repertoire and knowledge application in social situations. An individual may have greater development in one area than another. For example, one individual may recognize an informal meeting of peers at a conference as an opportunity to network, while another individual may not. However, simply recognizing the social aspects of a situation is not analogous to correctly behaving in that situation.

The main theoretical distinction between social intelligence and ATIC is that ATIC is thought to be more situationally specific. In other words, social intelligence may apply in countless day-to-day interactions, while ATIC is most relevant in specific selection and workplace situations (Melchers et al., 2009). This study will be the first to empirically examine the relationship between social intelligence and ATIC.

Distinction between ATIC and Self-Monitoring

While social intelligence refers to the general ability to display the proper behavioral response from a wide repertoire, the theory of self-monitoring posits that there are individual differences in the desire and ability to strategically cultivate public appearances. In other words, social intelligence focuses on correctly responding to social situations, whereas self-monitoring

focuses on self-presentation in social situations. Originally conceived by Snyder (1974), selfmonitoring is more deliberate and effortful than social intelligence (Zaccaro, 2002). Often a distinction is made between high self-monitors and low-self monitors. High self-monitors are "highly responsive to social and interpersonal cues of situationally appropriate performances" while "low self-monitors seem not only unwilling but also unable to carry off appearances" (Gangestad & Snyder, 2000, p. 530-531). A key component of self-monitoring is the desire for control over the information about the individual that is available to others. Low self-monitors are described as more consistent in their behavior because they are relatively less affected by the desire to present themselves in the best light. Conversely, high self-monitors are more likely to alter their behavior from situation to situation in order to show themselves in the best possible light. In looking at the relationship between self-monitoring and convergent validity in assessment centers, Kuptsch, Kleinmann and Köller (1998) found that individuals with high levels of self-perceived self-monitoring varied their behavior more appropriately across situations than did self-perceived low self-monitors. There was not a difference in performance between high and low self-monitors.

It would appear that there is some overlap between the end products of high social intelligence, high self-monitoring and high ability to identify criteria. All involve accurately perceiving the needs of a social situation and presenting a correspondingly appropriate behavior (König et al., 2007; Melchers et al., 2009). In this way, it may be that high self-monitors have greater ability to identify criteria, because they have developed greater skills in perceiving the desired social behavior in any situation. However, the two constructs ought to be considered distinct because of the underlying motivation. Self-monitoring often results in presenting a public persona that is different than privately held beliefs (Snyder, 1974). While it is not always

likened to deception, the underlying goal of impression management is apparent. Ability to identify criteria is much narrower in scope, with the focus to display relevant behavior that one believes is being evaluated in a personnel context (Kleinmann, 1993). For this reason, ability to identify criteria may be related to self-monitoring, but is conceptually different. This study will be the first to empirically examine the relationship between self-monitoring and ATIC.

Feedback Acceptance

Understanding what ATIC is and how it related to other constructs is one goal of this study. Equally important is a better understanding of other outcomes ATIC may influence. ATIC represents a specific manner in which individuals are able to interpret situational demands. This ability is therefore thought to be useful for performance in workplace contexts where demands are ambiguous. Yet the ability to interpret situational demands may prove useful in other ways as well. Specifically, I predict that ATIC should also be related to feedback acceptance.

Feedback is a frequent and important occurrence in any organization, with the primary goal of improving employees' performance. Ilgen, Fisher and Tayor (1979) were among the first to provide a comprehensive model of feedback. They conceptualized an interactive process by which individuals receive, process, and use feedback. An important component of the feedback process they identified was feedback acceptance, which they defined as the individual's belief that the feedback is accurate. They argued that if individuals view the feedback as being inaccurate or unhelpful they will disregard it and not make attempts to alter relevant behavior. In this way, the effect of feedback on participants' responses and intent to use feedback is mediated by the recipient's perceptions of feedback accuracy. Providing feedback in an organization is financially costly. Additionally, it can often take a significant amount of time. If feedback is

discarded, both the financial and time investments are wasted. By increasing the potential for feedback to be accepted, more utility is derived from the entire feedback process.

One important finding by Ilgen et al. (1979) was that, in general, feedback is perceived as more accurate when it is positive and seen from coming from a powerful and credible source. More recent research has found similar conclusions (Anseel & Lievens, 2006, Brett & Atwater, 2001). In general, it is believed that most people are interested in promoting and maintaining a positive self-image. Favorable feedback reinforces these views, but unfavorable feedback challenges them. People typically desire feedback that that is positive. Self-enhancement theory argues that people generally react favorably to positive feedback and react negatively to unfavorable feedback (Schrauger, 1975). The underlying mechanism proposed is that people desire to feel positively about themselves, and positive feedback enhances these feelings while critical feedback threatens these feelings. Accordingly, positive feedback is embraced while negative feedback is often perceived as inaccurate. Research has shown that when favorable feedback is provided to AC participants, they perceive it as more accurate (Kudisch, 1997). ATIC has been shown to increase performance (Kleinmann, 1993). With greater performance, it is likely that feedback will be more positive. Thus, self-enhancement theory should indicate that ATIC indirectly leads to greater feedback acceptance through an increase in performance.

In addition to the theory of self-enhancement, the theory of self-verification posits that individuals are more likely to accept feedback when it is consistent with their own assessment of their performance (Woo, Sims, Rupp & Gibbons, 2008). Cognitive dissonance theory explains that discrepancies in internal beliefs and external feedback are uncomfortable and people are motivated to resolve this dissonance. Generally, people will either change their beliefs, or attempt to discredit or disregard the discrepant information (Festinger, 1957). Theoretically,

discontent should be equal regardless of the direction of the discrepancy, but research has shown negative reactions only when feedback is less favorable than self-ratings (Brett & Atwater, 2001). Because ATIC leads to a greater understanding of the evaluation mechanisms, it is reasonable to expect individuals high in ATIC to have more agreement between their self-ratings and the feedback. Because there will be more agreement, self-verification theory would indicate that greater ATIC would directly increase feedback acceptance. Because ATIC leads to greater understanding of the necessary behavior in ambiguous situations, it follows that individuals high in ATIC will be less likely to discount feedback, as they are able to correctly ascertain what the exercise requires. In this way, their model of effective behavior should match the criteria they are evaluated on. This consistency could potentially increase feedback acceptance for participants high in ATIC. Therefore, both self-enhancement theory and self-verification theory may be applied to the current study to indicate that greater ATIC should lead to greater feedback acceptance.

Although accuracy of feedback is an important component in feedback acceptance, other components are also important. Recently, a new multidimensional measure of feedback acceptance was developed that allows researchers to ascertain more than just perceived accuracy of feedback (Kedharnath, Garrison, & Gibbons, 2009). This measure expands on several previous empirical measures to give a more comprehensive measure of feedback acceptance. They found support for feedback acceptance conceived as a multidimensional construct relating to seven different components: accuracy, specificity, self-awareness, fairness, achievability, clarity and intent to use. These dimensions, especially intent to use, may be an important outcome variable of interest in training and development interventions. This scale represents

several components beyond simple accuracy, and will be a useful tool in further understanding the relationships between ability to identify criteria, performance and feedback acceptance.

Current Study

The purpose of the current study is to extend the research on ATIC to three previously untested areas: social intelligence, self-monitoring, and feedback acceptance. I will explore these relationships in the context of an assessment center exercise, which allows for nontransparent evaluation mechanisms, relevant behavioral observations, and detailed feedback. Participants will complete a leaderless group discussion (LGD), a series of individual difference measures including ATIC, social intelligence, self-monitoring, and cognitive ability. They will receive veridical feedback on their performance in the LGD and complete a measure of feedback acceptance.

Hypotheses

First, I will examine the relationships among ATIC, cognitive ability, self-monitoring, and social intelligence. The relationship between ATIC and cognitive ability has been examined previously (König et al., 2007, Melchers et al., 2009); however, including it here will allow me to replicate that finding and will provide context for interpreting the correlations between ATIC and the other variables. Although prior research has conceptualized the links between ATIC, social intelligence and self-monitoring, they have not yet been tested (König et al., 2007, Melchers et al., 2009).

Hypothesis 1a: Cognitive ability will be positively related to ability to identify criteria in the LGD.

Hypothesis 1b: Social intelligence will be positively related to ability to identify criteria in the LGD.

Hypothesis 1c: Self-monitoring will be positively related to ability to identify criteria in the LGD.

I propose that, in addition to being related to the constructs above, ATIC will positively influence a participant's performance in a leaderless group discussion and subsequent feedback acceptance. Figure 1 illustrates the hypothesized relationships between these variables in the current study. Because other research has established the relationships between cognitive ability, ATIC, and assessment center performance (König et al., 2007, Melchers et al., 2009), I expect to replicate those findings in this study.

Hypothesis 2: Participants' cognitive ability will have a direct positive effect on performance in the LGD.

Hypothesis 3: Participants' ability to identify criteria will have a direct positive effect on performance in the LGD.

For example, if the LGD is assessing communication but not cooperation, we expect the participant who believes communication is a main dimension to perform better than the participant who believes cooperation is a main dimension. This is consistent with previous research on ATIC and performance (e.g., König et al., 2007, König et al., 2006, Melchers et al., 2009).

In the remaining hypotheses, I extend previous research by predicting that ATIC should also be related to feedback acceptance.

Hypothesis 4: Participants' ability to identify criteria will have a direct positive effect on acceptance of feedback from the LGD.

For example, if the LGD is assessing communication but not cooperation, we expect the participant who believes communication is a main dimension to be more accepting of feedback

that reflects his or her performance on communication than the participant who believes cooperation is a main dimension and did not predict communication was being assessed.

Although I predict that cognitive ability will be positively related to both ATIC and performance, I expect ATIC to incrementally predict performance and feedback acceptance beyond cognitive ability. Previous research supports this prediction with respect to performance (König et al., 2007, Melchers et al., 2009); less is known about how cognitive ability relates to feedback acceptance. Thus, the predicted relationships between ATIC, performance, and feedback acceptance should remain even when cognitive ability is included in the model.

Finally, I expect the effect of ATIC on feedback acceptance to be partially mediated by performance. ATIC should improve the quality of performance in the assessment center, which will in turn improve feedback acceptance, creating an indirect effect. Additionally, I expect a direct effect as well, because those with greater ATIC should be more aware of the situational demands and therefore more accurate in evaluating their own performance, which has been shown to increase feedback acceptance.

Hypothesis 5: Participants' performance will partially mediate the relationship between ATIC and feedback acceptance. There will be an indirect effect, such that participants with greater ATIC will perform better in the LGD, and this increase in performance will lead to greater feedback acceptance.

Hypothesis 6: In addition to the indirect effect hypothesized above, there will also be a direct effect of ATIC on feedback acceptance, indicating that the influence of ATIC on feedback acceptance is not solely a function of better performance.

Method

Participants

Participants were undergraduates from a large university in the Rocky Mountain Region. Participants took part in the study for partial fulfillment of course credit. To determine how many participants were needed to provide adequate power to test the hypotheses, I conducted a Monte Carlo power analysis using the Mplus 5.2 program (Muthen & Muthen, 2007) The results indicated a sample size of 240 participants was desirable. Ultimately, 146 participants with complete data participated.

Procedure

I used a correlational design in a lab setting with all participants experiencing the same protocol. The primary investigator welcomed participants to the study and outlined the study protocol. Informed consent was obtained from all participants.

All participants were given written instructions for a leaderless group discussion with no assigned roles. Details of the simulation exercise are given in the following sections. Participants were given five minutes to review materials and 15 minutes to participate in the actual discussion. Each participant was observed by two trained assessors.

After participating in the discussion, participants were told that although the evaluation portion of the study was over, we were interested in collecting information regarding their perception of the simulation exercise to improve future studies. They were instructed to be as honest as possible and told that their feedback would not be influenced by any of the additional measures. Participants then filled out a measure of Ability to Identify Criteria in the LGD. To be consistent with prior research, I included an open-ended measure asking participants to describe what they thought was being assessed in the exercise. Then, participants were asked to complete

a quantitative measure of ATIC by ranking provided dimensions as either relevant or not to the exercise they completed.

Participants also completed measures of social intelligence and self-monitoring.

Participants then completed self-ratings of their performance on the relevant dimensions in the LGD. It is important for participants to give self-ratings of their performance prior to receiving feedback so as to not contaminate the self-ratings. The ATIC, self-rating, and individual difference measures were presented electronically via Microsoft Access. Finally, participants completed a paper and pencil measure of cognitive ability, the Wonderlic Classic Cognitive Ability test. Together, the individual difference measures took about 30 minutes to complete.

After completing the individual difference measures, each participant received a printed feedback report. The feedback given was veridical and tailored to the individual participant; a more detailed description of the feedback report is provided below. After participants read their feedback report, they were asked to fill out a measure of their reactions to the feedback (feedback acceptance). Participants had ten minutes to review their feedback and complete the measure of feedback acceptance. After this, participants were dismissed.

Dimensions

Dimensions represent specific aspects of performance that are assessed in an assessment center exercise, such as problem solving, information seeking, planning and organizing, adaptability, conscientiousness, oral communication, written communication, listening, interpersonal skills, leadership or teamwork. Many different dimensions may be assessed in each exercise, but some dimensions are elicited more in certain exercises. For example, teamwork is more easily assessed in group exercises where participants are expected to work together.

However, often a particular exercise elicits a variety of possible dimensions, only a portion of

which are chosen to be assessed. In other words, there may be dimensions that participants identify as being potentially relevant, but that the researchers decided not to evaluate. This would bias the measurement of ATIC, as the participants might correctly identify dimensions that are relevant, but that are not formally assessed.

To ensure that our assessors rated the most relevant dimensions, I sought input from subject matter experts (SME) familiar with assessment center exercises. Because an integral part of ATIC is criteria, I felt it was necessary to consider SME's opinions on what those criteria ought to be. To have more confidence that I was evaluating the most relevant dimensions, I conducted a brief online study.

A notice explaining the study was posted in the "Assessment Center Network" forum in Linked In. The survey was anonymous, took about 20 minutes, and participants were given a \$5 online Starbucks gift card for participating. To ensure that only experienced assessors were used I asked assessors to only participate if they had worked as an assessor in more than 1 assessment center program (specifically with different organizations, dimensions, and/or exercises) and had previously assessed at least 10 participants. Once participants indicated they met these requirements, they learned more about the nature of the study and were asked to review the exercise materials for the study, listed in Appendix A. Then, using Thornton and Byham's (1982) list of 33 commonly used assessment center dimensions, I asked the experts to rate each dimension on a scale of 1-7 with 1 = "not relevant in the exercise" and 7 = "extremely relevant in the exercise". A total of 8 SMEs completed the survey.

In reviewing the results (Table 1), I decided to use the three dimensions with the highest mean score for being relevant to the exercise. There was a fairly large margin between the top three dimensions (all being rated as a 6 or higher) and the remaining dimensions (all under 6).

For this reason, I chose to assess Oral Communication, Leadership and Sensitivity. I also used the SME responses to select the dimensions to use in the quantitative ATIC measure. Specifically, the highest rated 6 dimensions and the lowest rated 6 dimensions were used to measure ATIC in the current study. That is, participants' ATIC was evaluated on the most and least relevant dimensions as rated by experienced assessors, not simply the dimensions I chose. This strengthened the measurement of ATIC relative to previous research, where the relevance of the assessed dimensions was not always evaluated by external or objective sources. Table 2 lists the 12 dimensions presented to participants in the study as part of the ATIC measure.

Assessors and Assessor Training

Assessors were undergraduate research assistants working for course credit and research experience. In total, 35 undergraduate research assistants were used as assessors. Following best practices for assessment centers, assessors were provided with extensive training (Woehr & Huffcutt, 1994). They were trained on the assessment center method, behavioral observations, the specific exercise and dimensions assessed, guidelines for providing written feedback, and ethical principles (such as confidentiality). All research assistants participated in a frame-of-reference training to minimize common rating errors and were required to attend multiple calibration meetings. Before rating actual participants, all assessors independently rated participants in a training video and had to come to a consensus on performance ratings to ensure consistency.

Materials

All participants received the same scripted instructions and standardized documents outlining the details of the leaderless group discussion (see Appendix B). This standardization allowed all participants equal opportunity to perform effectively in the LGD. The LGD asked

participants to imagine that they were a resident advisor for a fictional residence hall and that they needed to work together with other resident advisors in groups of no more than four to plan an activity for the residents. The instructions prompted them to review background information about the demographic makeup of the residence hall and past activities, to create ideas for the best activity, to brainstorm with fellow group members and to formulate a brief plan for the activity.

Measures

Performance. Performance on the Leaderless Group Discussion was independently rated in real time by two assessors who were present in the room. Assessors used behavioral checklists as a guide in identifying effective and ineffective behaviors and behavioral omissions for each dimension. Assessors provided a frequency rating for each behavior listed. In the event that the assessor ratings were more than one unit apart, the database prompted assessors to discuss and come to a consensus before moving on. These ratings were then averaged across the 2 assessors, summed, and converted to a qualitative summary label (e.g., a score of 20 would receive the label "Competent"). Dimensions assessed were those identified by subject matter experts as being most relevant to the leaderless group discussion, Oral Communication, Leadership, and Sensitivity.

Feedback. The feedback provided to participants was veridical and included specific descriptions of the participant's effective and ineffective behaviors in the LGD. The report provided to the participants contained their summary label for each dimension (*not* the underlying quantitative rating) and a list of their effective and ineffective behaviors. A list of development suggestions was also provided for the lowest-rated dimension. The feedback report was automatically generated in Microsoft Access based on the assessor ratings; this allowed me

to provide individually-tailored feedback and recommendations in an efficient and reasonably standardized manner.

Ability to Identify Criteria. ATIC was measured by a questionnaire administered electronically via Microsoft Access. The first screen asked participants to generate original hypotheses as to what was being evaluated in the exercise. Specifically, we used the following prompt "Activities like the one you just participated in are often used in organizations to evaluate participants on many different kinds of skills. In the activity you just completed, what do you think we were trying to assess? Be as specific as you can."

On the next page, participants saw the following prompt, "Below are some examples of different skills that might be assessed in an activity like the one you just completed. Please read the description of each skill carefully, then think about which three would be MOST RELEVANT for effective performance in this particular activity." They saw an alphabetical list of the 12 dimensions in Table 2 and were required to select the three dimensions they thought were most relevant in the exercise.

On the next page, participants saw the following prompt, "Now think about which three skills would be LEAST RELEVANT for effective performance in this particular activity. That is, which skills are not particularly necessary to perform well in this activity?" They saw the same alphabetical list of the 12 dimensions in Table 2 and were required to select the three dimensions they thought were least relevant in the exercise. Participants had to select three different dimensions, otherwise were presented with an error message.

Social Intelligence. Social Intelligence was measured by the Genos Social Intelligence Inventory- Short (Palmer, Stough, Harmer, & Gignac, 2009). This scale consists of 14 items and asks participants to report how frequently they demonstrate socially intelligent behavior at work

on a scale of 1-5 with 1 being almost never and 5 being almost always (α = .87). An example item from this measure is "I consider the way others may react to decisions when communicating them." The full scale is included in Appendix C.

Self-Monitoring. Self-monitoring was measured by Snyder's (1974) Self-Monitoring Scale. This scale consists of 25 true-false questions and asks participants to answer as honestly as possible. The Self-Monitoring Scale has a Kuder-Richardson 20 reliability of .70 An example item from this measure is "I would probably be a good actor." The full scale is included in Appendix D.

Self-Ratings. Participants were asked to rate their own performance in the LGD using the same set of dimensions used by the assessors. Specifically, participants will rate their performance on one global item for each dimension, Oral Communication, Leadership and Sensitivity, using a scale from 1 = "not very effective" to 7 = "highly effective." Detailed definitions for each dimension were provided.

Cognitive Ability. Cognitive ability was measured using the Wonderlic Classic

Cognitive Ability test, formerly the Wonderlic Personnel Test (WPT). This test is a widely used and extensively validated measure of general intelligence (g; Hunter, 1989). The Wonderlic is designed to assess general intelligence through a broad range of problems such as analogies, analysis of geometric figures, arithmetic problems, disarranged sentences, sentence parallelism with proverbs, similarities, logic, definitions, judgment, and spatial relations. (Wonderlic & Associates, 1983). They are designed to measure an applicant's ability to learn, adapt, solve problems and understand instructions (Wonderlic & Associates, 1983). The test consists of 50 items, and participants are instructed to complete as many as they can within a time limit of 12

minutes (α = .73-.93). Because Wonderlic requires the use of official, approved test answer sheets, this test was administered in paper and pencil format.

Feedback Acceptance. Feedback acceptance was measured using a multidimensional scale developed by Kedharnath, et al. (2009). This scale consists of 28 questions measuring seven dimensions of feedback reactions. Participants were asked to think specifically about the feedback they received and to rate their agreement with each item using a 5 point Likert-type scale (1 = "Strongly Disagree", 5 = "Strongly Agree"). See Appendix E for the full scale.

The seven dimensions measured by the feedback acceptance scale are accuracy, specificity, self-awareness, fairness, achievability, clarity and intent to use. Accuracy represents recipients' perceptions of the accuracy of the feedback provided and closely resembles past conceptualizations of feedback acceptance (Ilgen et al., 1979). An example item is "The feedback I received about my performance is accurate". Additionally, perceived specificity is measured as past research has supported the idea that feedback is more likely to be accepted when it is specific (Ilgen et al. 1979). An example item is "The feedback I received about my performance was detailed". Self-awareness is conceived as the perception that participants learned from their feedback, that is to say that the feedback provided new information that the participant was not previously aware of and did not solely confirm what the recipient already believed. An example item is "I believe I will be more aware of my performance on these skills in the future". Fairness relates to the participants' perception that every participant had the same opportunity to perform well and that the performance was fairly assessed. If feedback is perceived to be unfair, it is more likely to be rejected. An example item is "I feel that this feedback process has been fair". Achievability reflects the participants' perception that the feedback provided suggests a realistic and attainable standard they might achieve. If the feedback I can successfully improve on the behaviors suggested in the feedback." Clarity ascertains participants' perceptions that the feedback provided was clear, well organized and easy to understand. This component is important practically to confirm that participants understood the feedback provided as a necessary first step to acceptance. An example item is "The feedback is easy to understand." Finally, intent to use indicates the perceived applicability of the feedback for future behavior. An example of an item is "The feedback I received will influence my effort in the near future."

Results

Descriptive statistics and correlations among the variables from this study are shown in Table 3.

Measurement and Scoring of ATIC

Few participants (N = 2) correctly identified all three dimensions being assessed. The frequency of dimensions selected is shown in Table 4. Surprisingly, the most common dimension chosen by participants as relevant was Planning and Organizing (N = 113) followed by Oral Communication (N = 92) and Leadership (N = 89). Only 25 participants correctly identified Sensitivity as a relevant dimension. Overall, ATIC was measured quantitatively by the number of correctly identified dimensions with exact matches (Oral Communication, Leadership and Sensitivity) earning more points than close matches (Initiative, Planning and Organizing and Judgment). In general, ATIC was fairly normally distributed (see Figure 2 for a histogram of ATIC scores). As a way of further investigating ATIC, I examined whether participants did or did not identify each of the three dimensions actually assessed: Oral Communication, Leadership, and Sensitivity. A participant could have a relatively high ATIC score without necessarily identifying the actual dimensions assessed. For example, if they believed that Initiative, Planning and Organizing and Judgment were being assessed and Technical and Professional Knowledge, Written Communication and Range of Interests were not relevant, they would have an overall ATIC score of 9. Therefore, I created three dichotomous variables indicating whether or not they identified each of the dimensions assessed. If a participant correctly identified Leadership, they received a score of 1 on ATIC-L. If they correctly identified Oral Communication, they received a score of 1 on ATIC-OC. If they correctly identified Sensitivity, they received a score of 1 on ATIC-S.

In addition to looking at total ATIC and ATIC by dimension, I also coded the open-ended question asking participants to relate what they believed we were looking for in the group discussion exercise. Table 5 provides 10 randomly chosen responses to demonstrate the range in length, dimensions, and explanation given in these answers. Figure 3 provides the frequency of dimensions coded. In reviewing the open-ended responses, one thing became very clear. The majority of participants believed the exercise was evaluating "teamwork". Teamwork was by far the most frequently referenced dimension (N = 111) followed by Leadership (N = 49). In reviewing the full list of 33 dimensions provided to the subject matter experts (See Appendix A), there is no dimension that captures the idea of teamwork. The definition that comes closest to the way participants described teamwork is sensitivity, or "actions that indicate a consideration for the feelings and needs of others."

To compare the quantitative measure of ATIC recommended by Christiansen et al. (2012) to a more traditional measure, I decided to investigate four more dichotomous variables based on the results of the open-ended responses. Therefore, I created four variables indicating whether or not participants identified each of the dimensions assessed in their open-ended response. If a participant referenced Leadership, they received a score of 1 on OpenATIC-L. If they referenced Oral Communication, they received a score of 1 OpenATIC-OC. If they referenced Sensitivity, they received a score of 1 OpenATIC-Sa. Finally, because so many participants identified Teamwork as a dimension and teamwork most closely matches the definition of sensitivity, I created a fourth variable titled OpenATIC-Sb. If they referenced Teamwork they received a score of 1 on OpenATIC-Sb.

Alarmingly, these variables, OpenATIC-L(Leadership), OpenATIC-OC(Oral Communication), OpenATIC-Sa(Sensitivity) and OpenATIC-Sb(Teamwork), did not show any

convergence with the quantitative measures of overall ATIC, ATIC-L, or ATIC-OC, although there was a small effect for ATIC-S. However, only 12 participants identified Sensitivity in the open-ended response. Therefore, it does not seem that this method of measuring ATIC is comparable to previously described measurement methods (see Table 3 for correlations between the ATIC measures). These follow-up analyses will be discussed in greater detail in the subsequent results section, as a response and explanation to the a priori hypothesized relationships.

Correlates of ATIC

The correlations in Table 3 provide information about Hypotheses 1a-1c. Hypothesis 1a, that cognitive ability would be positively related to ATIC, was not fully supported. Cognitive ability was not significantly correlated with participants' overall ATIC score, r = .13, (-.03, .27) p > .05. Next, I investigated if whether ATIC-OC, ATIC-L, or ATIC-S was related to Cognitive Ability. Only ATIC-OC was correlated with Cognitive Ability, r = .23, (.06, .38) p < .01. Neither ATIC-L nor ATIC-S was significantly related to Cognitive Ability (r = -.10, (-.16, .14) p > .05; r = -.13, (-.27, .04), p > .05). OpenATIC-Sb was significantly related to cognitive ability (r = .19, p < .05). None of the other OpenATIC variables were significantly related to cognitive ability (OpenATIC-L: r = .02, p > .05; OpenATIC-OC: r = .05, p > .05; OpenATIC-Sa: r = -.12, p > .05).

Hypothesis 1b, that Social intelligence would be positively related to ATIC, was not fully supported. Social intelligence was not significantly correlated with participants' overall ATIC scores, r = .08, (-.07, .23), p > .05. In examining whether participants identified any of the specific dimensions assessed, only ATIC-OC was significantly correlated with Social Intelligence, r = .19, (.02, .33) p < .05. Neither ATIC-L nor ATIC-S was significantly related to

Social Intelligence (r = -.07, (-.23, .09) p > .05; r = -.12, (-.28, .03) p > .05). In investigating if any of coded open-ended responses were related, only OpenATIC-Sb was significantly related to Social Intelligence, r = .19, p < .05,). None of the OpenATIC variables were significantly related to Social Intelligence (OpenATIC-L: r = .02, p > .05; OpenATIC-OC: r = .05, p > .05; OpenATIC-Sa: r = -.12, p > .05)

Hypothesis 1c, that self-monitoring would be positively related to ATIC, was not supported. Self-monitoring was not significantly correlated with participants' overall ATIC score, r = -.04 (-.22, .12), p > .05. In looking at whether participants' identified any of the specific dimensions assessed, none of the dimensions were significantly related to self-monitoring. (ATIC-OC, r = .06, (-.10. .20) p > .05, ATIC-L, r = -.01, (-.18, .16) p > .05, ATIC-Sa, r = -.04, (-.18, .10) p > .05). None of the OpenATIC variables were significantly related to self-monitoring (OpenATIC-L: r = .12, p > .05; OpenATIC-OC: r = .03, p > .05; OpenATIC-Sa: r = .03, p > .05; OpenATIC-Sb: r = .09, p < .05).

Predicting Performance and Feedback Acceptance

The correlations in Table 3 provide information about Hypotheses 2-4. Performance ratings for all three dimensions showed satisfactory interrater reliability (Leadership = .87, Oral Communication = .73, Sensitivity = .84). Hypothesis 2, that cognitive ability would positively predict performance, was not fully supported. The model regressing cognitive ability on sensitivity performance was significant, F(1,144) = 3.96, p < .05, $\beta = .16$. Cognitive ability did not significantly predict oral communication performance (F(1,144) = 1.10, p = .29) nor leadership performance (F(1,144) = 0.98, p = .32).

Hypothesis 3, that ATIC would positively predict performance, was not supported. ATIC did not significantly predict oral communication (F(1,144) = 0.04, p = .83), leadership (F(1,144)

= 0.11, p =.74), or sensitivity (F(1,144) = .13, p =.72.) To further investigate ATIC and performance, I conducted post-hoc analyses to determine if ATIC of a certain dimension (ATIC-OC, ATIC-L, ATIC-S) positively predicted performance on that dimension. For example, if the participant correctly identified Leadership, were they rated higher on the dimension of leadership? The model regressing ATIC-OC on oral communication performance was not significant, F(1,144) = 0.51, p =.48. The model regressing ATIC-L on leadership performance was not significant, F(1,144) = 0.01, p =.94. The model regressing ATIC-S on sensitivity was not significant, F(1,144) = .79, p =.38. None of the open-ended ATIC variables reliably predicted performance, although ATIC-Sb showed a slight trend (OpenATIC-OC on oral communication: F(1,144) = 3.59, p = .06; OpenATIC-L on leadership: F(1,144) = 1.58, p = .2; OpenATIC-Sa on sensitivity: F(1,144) = 1.81, p = .18; OpenATIC-Sb on sensitivity: F(1,144) = 3.67, p = .06).

Hypothesis 4, that ATIC would positively predict Feedback Acceptance, was supported for only one dimension. The seven different components of Feedback Acceptance are accuracy, specificity, self-awareness, fairness, achievability, clarity and intent to use. Only feedback clarity was predicted by ATIC, all other dimensions were not. The model regressing ATIC on clarity was significant, F(1,144) = 4.26, p = .04. ATIC did not significantly predict accuracy (F(1,144) = 0.28, p = .60), specificity (F(1,144) = 0.07, p = .79), self-awareness (F(1,144) = 0.25, p = .61), fairness (F(1,144) = 0.89, p = .35), achievability (F(1,144) = 2.93, p = .09) nor intent to use (F(1,144) = 0.85, p = .36). Neither the dimension specific ATIC variables nor coded open-ended ATIC variables showed significant prediction with any of the feedback dimensions.

Hypotheses 5 and 6 proposed mediated relationships amongst the study variables. Baron and Kenny (1986) suggested that four conditions be met in order for a mediating variable to exist. A variable functions as a mediator when (1) variations in the independent variable

significantly account for variations in the dependent variable, (2) variations in the independent variable significantly account for variations in the proposed mediator, (3) variations in the mediator significantly account for variations in the dependent variables and (4) the previously significant relationship between the independent variable and the dependent variable decreases (partial mediation) or becomes insignificant (full mediation) while controlling for the mediator (Baron and Kenny, 1986). Because there were not significant relationships in the variables, the data did not meet the specifications for mediation. In other words, because ATIC was not significantly related to performance or feedback acceptance, it is not possible to investigate if performance mediated the relationship between ATIC and feedback acceptance. Therefore, hypothesis 5 and 6 were not supported.

Discussion

Past research has shown that Ability to Identify Criteria (ATIC) predicts performance in assessment center exercises (e.g., Kleinmann, 1993; König, 2007). This study attempted to further investigate ATIC by testing its relationships with conceptually similar variables (Selfmonitoring, Social Intelligence, and Cognitive Ability) and one new outcome (Feedback Acceptance). Although none of the hypotheses were fully supported, this study still adds to the knowledge of ATIC and suggests some interesting potential directions for future research. As I will discuss, there are several possible explanations for the results found in this study, each providing an area for future theory and research.

Lack of Motivation?

The first possible alternative explanation is that because I was using a student sample, the participants might not have been sufficiently motivated to participate. If this was the case, these data would be misleading if they were responding carelessly or not interested in performing well. That is, perhaps there was limited variance in one or more key study variables, which would have limited my ability to detect relationships. However, in looking at the distributions and standard deviations it is clear that there was considerable variance in all of study variables, specifically performance, ATIC, cognitive ability, self-monitoring, social intelligence, and feedback acceptance.

Mean levels of performance in the exercise were high, indicating that there does not seem to be a problem with participants simply not trying. Furthermore, in the open-ended ATIC question, the majority of participants consistently wrote paragraph sized answers giving their opinion on the exercise. This suggests that participants were at least somewhat engaged in the

exercise and not simply providing careless one word answers or "I don't know, who cares?" as an attempt to get through it as fast as possible.

Problematic Leaderless Group Discussion?

This study used one AC exercise, a leaderless group discussion. One explanation for the lack of expected relationships may be that the LGD was viewed differently by participants than it was by SMEs and assessors. While the SMEs did not rank "Planning and Organizing" as the most relevant dimension, the majority of the participants did. The instructions that detail the exercise specify that participants must review the provided materials, participate in a discussion with the other participates, and come to a consensus regarding planning a social event for a fictional residence hall. Assessors and SMEs saw the task as an opportunity to display relevant skills in leadership, sensitivity, and oral communication. It appears that participants were more focused on the actual planning of the event as the key component of the task. Similarly, participants also considered teamwork to be important, which was not assessed. If they thought planning and teamwork were the most important dimensions, they may not have further considered deeper underlying skills that influence the planning process, such as communication or leadership. In sum, participants seemed to assess the LGD differently than the SMEs. For this reason, the particular LGD used may have been suppressed our ability to evaluate ATIC in the current study. LGDs are a common behavioral simulation, but this particular task may have been perceived to emphasize planning and teamwork, which was not an assessed dimension.

Measurement of ATIC?

Another explanation for the lack of reliable relationships stems from the way I conceptualized and measured ATIC. I measured this differently than previous studies that asked participants to generate their own hypotheses about what was being assessed and then evaluate

the correspondence of their hypotheses to a pre-determined list of dimensions. Although the method I used in the current study was recommended and endorsed by several ATIC researchers and described as more objective than previous measurement methods (Christiansen et al. 2012), ultimately it did not produce the expected relationships. As no studies have yet been published outside of the original research group, my null findings might indicate there is something unique about how those researchers are conceptualizing, studying and measuring ATIC.

One particularly puzzling result from this study is that all three dimension-specific ATIC measures are negatively correlated with each other. In other words, participants that correctly identified teamwork were less likely to identify oral communication or leadership, and vice versa. This result has not been reported in previous research featuring ATIC and is conceptually the opposite of what I would expect. One possible explanation is that some participants may have conceptualized leadership as directive and dominant, which might dissuade them to consider the importance of the considering the feelings of others (sensitivity). Thus, if participants conceptualized Leadership in this way and considered it relevant to the exercise, they might be less likely to also identify Sensitivity as a dimension. Several participants mentioned both oral communication and leadership together in the open-ended responses, so I am unsure why these were negatively correlated as well.

However, as discussed in my results, the post-hoc analysis of the coded open-ended ATIC responses also showed small, weak relationships with the study variables, with the exception of participants who identified Teamwork. These findings lead me to believe that results would have been similar had I used the original measurement method of ATIC, in which participants matched their hypotheses to dimensions. This is because if participants had matched their answers to the dimensions, the dimensions used would have likely been those ranked as relevant

or not by the subject matter experts. However, there was a surprising lack of convergence with the open-ended ATIC and the quantitative method, so it is possible that the two different measurement methods might be assessing different psychological processes.

Either way, there was a noticeable disconnect between the ratings the subject matter experts rated as most relevant and what participants rated as most relevant. This was apparent in both the open-ended and quantitative measures of ATIC. In the open-ended measure, participants consistently listed "Teamwork" as the most relevant dimension, which was not a dimension provided to subject matter experts. In the quantitative measure of ATIC participants most frequently choose "Planning and Organizing" as the most relevant dimension, ranked 4th by the subject matter experts. In some ways this discrepancy is at the heart of ATIC, which explicitly expects individual differences in participants' ability to accurately guess the successful criteria. While this mismatch is not necessarily a problem on its own, the fact that individuals that did correctly identify the criteria did not perform better is puzzling.

ATIC and Performance

Although unexpected, the finding that individuals who correctly identified dimensions did not necessarily perform better on them may be similar to research investigating the effect of transparency on performance. As previously discussed, research has demonstrated that performance in an assessment center is not consistently improved by telling participants what the dimensions are (Kleinmann, et. al, 1996; Kolk et al.,2003; Smith-Jentsch, 2007). In explaining the finding that transparency of dimensions did not improve performance, Smith-Jentsch hypothesized that the cognitive demand of attempting to display all of the dimensions may suppress the actual ability to do so. This idea could be behind the lack of relationship between ATIC and performance in this study. Perhaps individuals can meaningfully differ on the

identification of criteria, but cognitive fatigue prevents this identification from translating into better performance.

One other explanation for the lack of ATIC for a specific dimension improving performance on that dimension may be a lack of consistency in what that dimension means to participants. For example, when reading the open-ended responses to ATIC, most people that identified oral communication listed similar behaviors: talking clearly, making eye contact, listening to others, etc. However, there seemed to be a wider range in the behaviors associated with leadership, as identified by the participants. For example, some people listed leadership and described it as the person being somewhat aggressive and directing the conversation. For example, one participant stated "You might have been trying to figure out how well each individual works in a group organized setting. You might also be trying to figure out how aggressive each individual was in a group. Whether they would take charge or just follow what is being said by the group." Others described it as being more compassionate, or ensuring that everyone had an opportunity to speak. For example, one participant stated:

"I believe that we were being assessed on our willingness to cooperate with others, as well as the effects that different roles have on certain people. Some people will take up leadership positions over others and I believe this activity was primarily used to show whether or not certain participants had the leadership capabilities, and the willingness to take the lead on certain projects, as well as their willingness to work together with other people."

Thus, perhaps the reason that identifying leadership did not improve leadership performance is because participants had widely varying ideas regarding what leadership would look like.

Measurement of Performance?

Next, I considered measurement error in how performance was assessed. If participants' performance was not consistently and uniformly assessed, that might also mask the relationship between ATIC and performance.

In this study, performance in one dimension was strongly correlated with performance in the other two dimensions, indicating that there may have been errors in assessment. However, this is a common finding in assessment center research (Lance, 2008). Assessors completed extensive training on behaviors associated with strong and weak performance in each dimension. Their agreement was high for all of the dimensions assessed.

Cognitive Ability?

Another unexpected finding from this study is that cognitive ability was not related to performance in this exercise. Several studies have found strong links between assessment center performance and cognitive ability, with some arguing that cognitive ability is the primary determinant of performance in an assessment center (Collins, et.al 2003; Schmidt & Hunter, 1998). Cognitive ability does seem to reliably predict performance in assessment centers, particularly for more cognitively demanding dimensions such as problem solving (Shore et al., 1990). Strangely, these data did not support this link. One possible explanation is that the dimensions assessed in this study were not particularly cognitively loaded, as compared to other possible dimensions such as analysis or judgment.

Contributions

For the first time, two aspects of the nomological net of ATIC were empirically tested with the inclusion of social intelligence and self-monitoring measures, which have been previously hypothesized to be related to ATIC (König et al., 2007; Melchers et al., 2009). This study found

that, overall, ATIC was not significantly related to cognitive ability, social intelligence or self-monitoring. However, there was a significant positive relationship between Social Intelligence and Cognitive Ability and ability to identify Oral Communication, specifically. Although the hypotheses were not fully supported, it still adds to the research regarding how ATIC is conceptualized because it raises questions about what ATIC is and what it is related to.

Although none of the hypotheses were fully supported, these data still suggest some interesting findings. Some of the null results found featured confidence intervals evenly spaced around zero. These include the correlations between Cognitive Ability, ATIC-L, and ATIC-S; the correlations between Social Intelligence and overall ATIC, ATIC-L, and ATIC-S; and the correlations between self-monitoring and any ATIC measure. For these findings the range of the confidence intervals indicates that these results are not due to a lack of statistical power; in other words, studying more participants is unlikely to change the observed relationships. Rather, this provides persuasive evidence that there was not a relationship between these variables in this study. However, the confidence intervals for one of the results nearly excludes zero, notably Cognitive Ability with overall ATIC, indicating that with a larger sample size I might have been able to detect a significant effect. Previously found effect sizes for ATIC and performance have been between .26-.39 (Kleinman, 1993, König et al., 2007; Melchers et al., 2009). In comparison I found a non-significant effect of .13, with the upper limit of the 95% confidence interval being .28, close to the effects found in prior research.

These null findings can lead to multiple conclusions. It might be that in this study, with these dimensions, there is no relationship between ATIC and these variables. If this is the case, future research should investigate whether these variables are significantly related given other exercises and dimensions. If this is the case, it might be interesting to note which dimensions are more

easily identified than others and upon identification, which lead to higher performance. Similarly, this method of measuring ATIC may have been too flawed, in which case future research should further investigate the nomological net of ATIC in the way it is typically measured.

While the majority of the relationships involving ATIC investigated in this study were not significant, one dimension-specific measure of ATIC was significantly related to two variables. ATIC for Oral Communication was related to Emotional Intelligence and Cognitive Ability, as originally predicted. Given the possible measurement errors associated with the participants' conceptualization of Leadership and Sensitivity/Teamwork previously discussed, it is notable that that this form of ATIC was related to these variables as hypothesized. This finding may mean that ATIC is not "dimension-less"; rather how it is related to various outcomes might depend on what the criteria for success is, as well as participants' thoughts about that dimension. In other words, some dimensions might be more easily identified than others. Once identified, some dimensions might be more easily displayed than others. Finally, ATIC for certain dimensions might have differential relationships with correlates, as ATIC-O, but not ATIC-L or ATIC-S, was related to Social Intelligence. While certainly not conclusive, this study highlights areas where the construct of ATIC might be usefully explored and clarified.

Finally, ATIC did significantly predict one dimension of Feedback Acceptance: Feedback Clarity. In other words, participants that had a higher overall ATIC score reported that they found the feedback provided more clear than those with lower overall ATIC. Specifically, the questions loading on to the Clarity dimension are: "the feedback is easy to understand; the way the feedback is presented makes sense; the feedback was well organized." This finding does support the theoretical link posited earlier that ATIC ought to be related to feedback acceptance

because individuals with higher ATIC will be less "surprised" by the dimensions they were assessed on. Because ATIC (as conceptualized) leads to greater understanding of the necessary behavior in ambiguous situations, it follows that individuals high in ATIC will be less likely to be confused by the feedback, they received as they were more able to ascertain what the exercise required compared to participants with lower ATIC. While this consistency increased the clarity of feedback acceptance, it did not have a significant effect on the other six dimensions.

Furthermore, the effect size found (.13) is smaller than previously found effect sizes for ATIC on other outcomes (Kleinman, 1993, König et al., 2007; Melchers et al., 2009).

Conclusions

To sum, this study did not support prior findings that ability to identify criteria (ATIC) was related to cognitive ability or increased performance on identified assessment center dimensions. Theoretically plausible relationships between ATIC and Social Intelligence, self-monitoring, and a multi-dimensional measure of Feedback Acceptance were empirically tested but not fully supported. Future research should aim to further investigate the nomological net of ATIC. Likewise, the ways in which ATIC is related to various, differing dimensions and exercises should be more thoroughly tested. Finally, the quantitative method of measuring ATIC should be viewed with caution until better evidence of its construct validity can be provided.

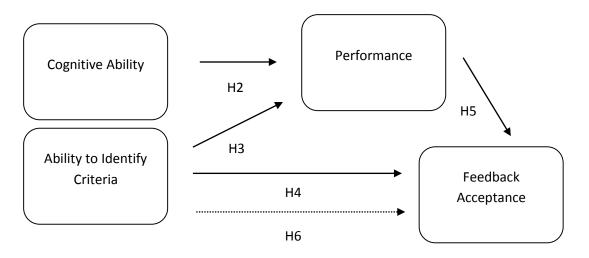


Figure 1: Hypothesized model for cognitive ability, ATIC, performance, and feedback acceptance

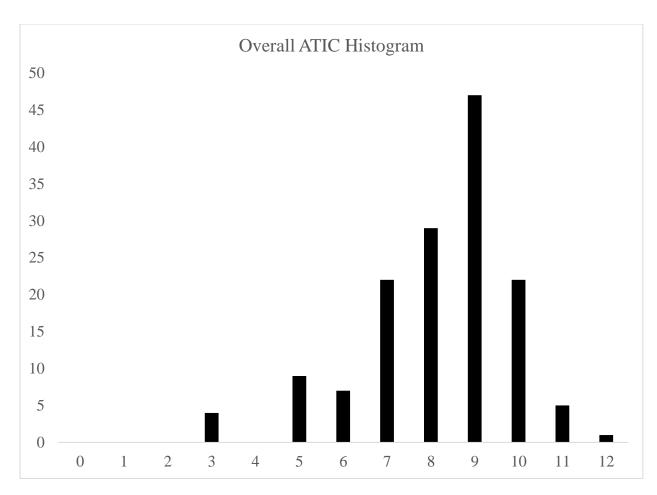


Figure 2: Histogram depicting frequency distribution of Ability to Identify Criteria (ATIC).

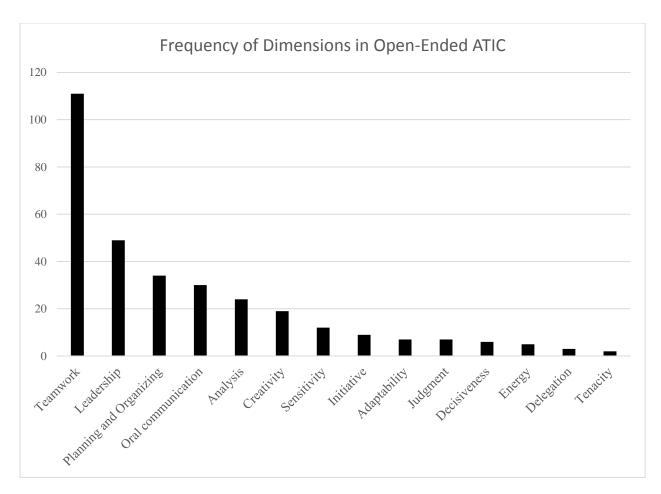


Figure 3: Frequency of Open-ended ATIC Dimensions

TABLE 1

SME (n=8) Ratings of Relevant Dimensions: Means and Standard Deviations

Mean	SD
6.36	.74
6.25	.87
6.13	.83
5.5	.76
5.38	1.30
5.38	1.51
5.38	1.41
5.38	1.41
5.18	0.99
5	2.27
5	2.14
5	.93
4.88	1.25
4.63	1.30
4.38	1.07
4.25	2.12
4.13	1.55
4.13	1.96
3.88	2.03
3.872	1.96
3.88	1.55
3.63	
	2.10
	2.07
	1.89
	1.89
	6.36 6.25 6.13 5.5 5.38 5.38 5.38 5.38 5.18 5 4.88 4.63 4.38 4.25 4.13 3.88 3.872 3.88

TABLE 2

Dimensions used in quantitative measure of Ability to Identify Criteria

Dimension	Definition	Assessed in Study	Points if Selected as Most/Least Relevant
Oral Communication	Effective expression in individual or group situations (includes gestures and nonverbal communication)	Yes	2 (Most Relevant)
Leadership	Utilization of appropriate interpersonal styles and methods in guiding individuals (subordinates, peers, and superiors) or groups toward task accomplishment	Yes	2 (Most Relevant)
Sensitivity	Actions that indicate a consideration for the feelings and needs of others	Yes	2 (Most Relevant)
Initiative	Actions that indicate a consideration for the feelings and needs of others	No	1 (Relevant)
Planning and Organizing	Establishing a course of action for self and/or others to accomplish a specific goal; planning proper assignments of personnel and appropriate allocation of resources	No	1 (Relevant)
Judgment	Developing alternative courses of action and making decisions based on logical assumptions that reflect factual information	No	1 (Relevant)
Development of Subordinates	Developing the skills and competencies of subordinates through training and development activities related to current and future jobs	No	2 (Least Relevant)
Job Motivation	The extent to which activities and responsibilities available in the job overlap with the activities and responsibilities that result in personal satisfaction	No	2 (Least Relevant)
Career Ambition	The expressed desire to advance to higher job levels with active efforts toward self-development for advancement	No	2 (Least Relevant)
Technical and Professional Knowledge	Level of understanding of relevant technical and professional information	No	1 (Not Relevant)
Written Communication	Clear expression of ideas in writing and use of good grammatical form	No	1 (Not Relevant)
Range of Interests	Breadth and diversity of general business related knowledge- well informed	No	1 (Not Relevant)

TABLE 3
Means, Standard Deviations, Correlations and Reliabilities for Study Variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Lead	18.57	9.16	(.87)																				
Performance																							
Oral Com Performance	25.22	5.91	.79*	(.73)																			
3. Sensitivity	18.49	7.25	.72*	.76*	(.84)																		
Performance	10.47	1.23	.,2	.70	(.04)																		
4. Total ATIC	8.19	1.71	03	.02	03																		
5. ATIC-L	.61	.49	.01	02	04	.17*																	
6. ATIC-OC	.63	.48	12	06	06	.33*	24*																
. ATIC-S	.17	.38	.01	.07	.07	.23*	12	29*															
3. Open ATIC-	.34	.47	.10	.03	.09	.09	.15	.03	02														
. Open ATIC-	.33	.47	.05	.16	.12	.10	.05	.05	01	13													
OC Open ATTC-	.55	.47	.03	.10	.12	.10	.05	.03	01	13													
0. Open ATIC-Sa	.08	.28	11	12	11	.06	02	13	.26*	16	.05												
11. Open ATIC-Sb	.76	.43	,15	.14	.16	.01	06	.07	13	01	.05	07											
2. Soc. ntelligence	3.78	.38	.20*	.16	.08	.08	07	.19*	12	.02	.05	12	.19*	(.70)									
13. Self-	3.12	.33	.18*	.09	.09	04	01	.06	04	.12	.03	.03	.09	02	(.64)								
Monitoring	*														()								
4. Cog Ability	23.11	4.66	.08	.09	.16*	.13	02	.24*	12	.6	.08	01	.20*	.07	.25*								
5. FA-	3.74	.59	.37*	.23*	.27*	.04	01	.04	04	.11	.03	03	.08	.10	.13	.03	(.84)						
Accuracy 6. FA-	3.81	.71	.17*	.12	.13	.02	07	.10	01	.04	.11	.02	.07	.07	.17*	.00	.48*	(.89)					
Specificity	3.01	./1	.17*	.12	.13	.02	07	.10	01	.04	.11	.02	.07	.07	.17"	.00	.40**	(.89)					
7. FA- Self-	3.66	.68	.17*	.15	.09	.04	10	.13	.10	.01	.00	.11	.12	.13	.12	15	.49*	.48*	(.85)				
Aware																							
8. FA- airness	4.02	.60	.15	.12	.07	.08	.02	.11	08	.05	.14	.03	.14	.19*	.09	.13	.63*	.49*	.44*	(.90)			
9. FA-	4.01	.52	02	.02	.00	.14	10	.16	.05	09	.05	.08	.11	.08	.15	06	.47*	.48*	.66*	.55*	(.86)		
Achieve	4.01	.32	02	.02	.00	.14	10	.10	.03	05	.03	.08	.11	.00	.13	00	.47*	.40**	.00-	.55**	(.00)		
0. FA- Clarity	4.09	.52	.18*	.15	.22*	.17*	03	.11	.09	01	.10	.06	.12	.21*	.15	.16*	.47*	.49*	.45*	.60*	.43*	(.84)	
1. FA- Jsability	3.88	.69	.23*	.17*	.18*	.08	08	03	.16	03	.04	.08	.10	.13	.15	16*	.51*	.38*	.79*	.52*	.64*	.50*	(.

TABLE 4
Frequency of Selections for Most Relevant Dimensions

	# of times selected
1. Oral Communication	92
2. Leadership	89
3. Sensitivity	25
4. Initiative	66
5. Planning and Organizing	113
6. Judgment.	17
Frequency of Selections for Least Relevant	Dimensions
	# of times selected
1. Range of Interests	35
1. 11080 01 1010.00	33
2. Written Communication	68
9	
2. Written Communication	68
2. Written Communication3. Technical and Professional Knowledge	68 82
2. Written Communication3. Technical and Professional Knowledge4. Career Ambition	68 82 95

TABLE 5

Examples of Open-Ended ATIC Responses

What I think you were trying to assess was how we were able to interact with one another and whether or not we were able to get along with others and come up with great ideas as a group.

I feel like they were trying to asses if a person actively takes charge or passively waits for another person to take the lead. I feel like it was focused on evaluating leadership and how thoroughly people follow the guidelines.

I think you were trying to assess our communication skills primarily

Organization. How we interacted as a team.

I think we were being assessed on initiative, leadership, creativity, flexibility, teamwork, following directions, contributing to the discussion, and how well we listened to each other.

I think what the researchers were trying to assess is level of participation, confidence in one's ability to share thoughts and ideas, and how well participants work with others. Participation seems to play a factor because if one person chooses not to participate, then brainstorming would not be as effective. Along with that, confidence in one's ability to share thoughts and ideas can be measured by how much a participant is sharing opinions. The last thing I think the researchers were measuring is how well participants worked together. If participants are one-sided and are not willing to hear other opinions, not only is it easy to identify to but it doesn't allow for good brainstorming. If ideas are looked down on, or if positive feedback is not given, this will inhibit one's confidence, thus inhibiting participation.

How analytical we are as planners: our problem solving skills, deducting capabilities, and general sense of rationality.

I think you guys were trying to assess how comfortable we felt about speaking out in front of people we don't know. Maybe confidence levels and creativity? How well we can present our ideas and share them with others as well as problem solving skills and working with others to solve differences.

I think that in the activity just completed, multiple factors were being assessed. These include creativity, the ability to work in a team, communication skills, as well as organizational skills. Creativity was asked when coming up with the event in general and the features presented. The ability to work as team was asked in that we all had to work together and needed to come to a complete agreement. Communication skills were needed to bring our ideas across in a clear way to the other team members. Lastly, the organizational skills were needed when planning the event to make sure factors such as budget, location, time, weather, participants, etc. were taken into consideration during the decision-making process.

How open individuals are to compromise

How able participants are to stay on task

How well participants can articulate their ideas

How participants handle and solve a problem in a short amount of time

If the participants are aware of the space that they take up in discussion and conversation

How well you can communicate and work with a group to complete a task.

References

- Anseel, F., Lievens, F. (2006). Certainty as a moderator of feedback reactions? A test of the strength of the self-verification motive. *Journal of Occupational and Organizational Psychology*, 79, 533-551.
- Atwater, L., & Brett, J. (2006). Feedback format: Does it influence managers' reactions to feedback? *Journal of Occupational and Organizational Psychology*, 79, 517-532.
- Bell, S. T., & Arthur, W. A. (2008). Feedback acceptance in developmental assessment centers: the role of feedback message, participant personality, and affective response to the feedback session. *Journal of Organizational Behavior*, 29, 681–703.
- Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *Journal of Applied Psychology*, 86, 930-942.
- Christiansen, N. D., Speer, A.B., Melchers, K.G., Konig, C.J., & Kleinmann, M. (2012, April). Cross-situational convergence of ability to identify criteria across AC exercises. Symposium presentation at the annual meeting of the Society for Industrial and Organizational Psychology, San Diego, CA.
- Collins, J. M., Schmidt, F. L., Sanchez-Ku, M., Thomas, L., McDaniel, M. A., & Le, H. (2003). Can basic individual differences shed light on the construct meaning of assessment center evaluations? *International Journal of Selection and Assessment*, 11, 17–29.
- Dayan, K., Kasten, R., & Fox, S. (2002). Entry-level police candidate assessment center: Efficient tool or a hammer to kill a fly? *Personnel Psychology*, *55*, 827–849.
- Festinger L. (1957). A theory of cognitive dissonance. Evanston, IL: Row, Peterson.
- Gangestad, S.W., & Snyder, M. (2000). Self-Monitoring: Appraisal and reappraisal.

 *Psychological Bulletin, 126, 530-555.

- Hooijberg, R. (1996). A multidirectional approach toward leadership: An extension of the concept of behavioral complexity. *Human Relations*, *49*, 917-946.
- Hunter, J. E. (1989). *The Wonderlic Personnel Test as a predictor of training success and job performance*. Libertyville, IL: Wonderlic.
- Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behavior in organizations. *Journal of Applied Psychology*, 64, 349-371.
- Jones, K., & Day, J.D. (1997). Discrimination of two aspects of cognitive-social intelligence from academic intelligence. *Journal of Educational Psychology*, 89, 486-497.
- Kedharnath, U., Garrison, L., & Gibbons, A.M. (2009). A multidimensional measure of feedback acceptance. Unpublished manuscript.
- Kleinmann, M. (1993). Are rating dimensions in assessment centers transparent for participants? Consequences for criterion and construct validity. *Journal of Applied Psychology*, 78, 988–993.
- Kleinmann, M., Kuptsch, C., & Köller, O. (1996). Transparency: A necessary requirement for the construct validity of assessment centres. *Applied Psychology: An International Review*, 45, 67–84.
- Kleinmann, M. (1997). Transparency of the required dimensions: A moderator of assessment centers' construct and criterion validity. *Organisationspsychologie*, *41*, 171–181.
- Kluger, A. N., & DeNisi, A. (1996). Effects of feedback intervention on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, 119(2), 254-284.

- Kolk, N. J., Born, M. P., & van der Flier, H. (2003). The transparent assessment centre: The effects of revealing dimensions to candidates. *Applied Psychology: An International Review*, 52, 648–668.
- König, C. J., Melchers, K. G., Richter, G. M., Kleinmann, M., & Klehe, U.-C. (2007). The ability to identify criteria in nontransparent selection procedures: Evidence from an assessment center and a structured interview. *International Journal of Selection and Assessment*, 15, 283–292.
- König, C.J., Melchers, K.G., Kleinmann, M., Richter, G.M. & Klehe, U.-C. (2006). The Relationship Between the Ability to Identify Evaluation Criteria and Integrity Test Scores. *Psychology Science*, 48, 369–377.
- Krause, D. E., Kersting, M., Heggestad, E. D., & Thornton, G. C., III (2006). Incremental validity of assessment center ratings over cognitive ability tests: A study at the executive management level. *International Journal of Selection and Assessment, 14,* 360–371.
- Kudisch J. (1997). Factors related to participant's acceptance of developmental assessment center feedback. *Dissertation Abstracts International*, *58*(6-B), 3349 (UMI No.AAT9735329).
- Kuptsch, C., Kleinmann, M., & Köller, O. (1998). The chameleon effect in assessment centers: The influence of cross-situational behavioral consistency on the convergent validity of assessment centers. *Journal of Social Behavior and Personality, 13*, 102–116.

- Lance, C.E. (2008). Why assessment centers do not work the way they are supposed to.

 Industrial and Organizational Psychology: Perspectives on Science and Practice, 1,
 84-97.
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. New York: Taylor & Frances Group/Lawrence Erlbaum Associates.
- Melchers, K.G., Klehe, U.-C., Richter, G.M., Kleinmann, M., König, C.J. & Lievens, F. (2009). "I know what you want to know": The impact of interviewees' ability to identify criteria on interview performance and construct-related validity. *Human Performance*, 22, 355-374.
- Melchers, K. G., Kleinmann, M., Richter, G. M., König, C. J., & Klehe, U.-C. (2004). Do selection interviews measure what they intend to measure? The impact of applicants' cognitions about evaluated behavior. *Zeitschrift für Personalpsychologie*, *3*, 159–169.
- Nelson, T.O. (1996). Consciousness and metacognition. *American Psychologist*, 51, 102-116.
- Palmer, B. R., Stough, C. Hamer, R., & Gignac, G. E. (in press). Genos Social intelligence inventory. In C. Stough, D. Saklofske, &, J. Parker (Ed.), *Advances in the measurement of Social intelligence*. New York: Springer.
- Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, 124, 262–274.
- Schrauger, J.S. (1975). Responses to evaluation as a function of initial self-perceptions. *Psychological Bulletin*, 82, 581–596.
- Shore, T.H., Thornton, G. C., III, & Shore, L. M. (1990). Construct validity of two categories of assessment center dimension ratings. *Personnel Psychology*, *43*, 101–116.

- Smith-Jentsch, K. A. (2007). The impact of making targeted dimensions transparent on relations with typical performance predictors. *Human Performance*, 20, 187–203.
- Snyder, M. (1974). Self-Monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30(4), 526-557.
- Thornton, G. C., III, & Byham, W. C. (1982). Assessment centers and managerial performance. New York: Academic Press.
- Woehr, D. J., & Huffcutt, A. I. (1994). Rater training for performance appraisal: a quantitative review. *Journal of Occupational and Organizational Psychology*, 67, 189-205.
- Wonderlic & Associates (1983). Wonderlic Personnel Test Manual. Author: Northfield, IL.
- Woo, S.E., Sims, C.S., Rupp, D.E., & Gibbons, A.M. (2008). Development engagement within and following developmental assessment centers: Considering feedback favorability and self-assessor agreement. *Personnel Psychology*, *61*, 727-759.
- Zaccaro, S.J. (2002). Organizational Leadership and Social Intelligence. In R. Riggio, S.Murphy & F. Pirozzolo (Eds.), *Multiple Intelligences and Leadership* (pp.29-54).Mahwah, NJ: Lawrence Erlbaum.

Appendix A

1. Approximately how long have you been working as an assessor in assessment center

Screening Questions:

0

1-9

programs?											
les	s than 1	year									
1 year	•										
2 years											
3 years											
4 years											
5 years											
6 years											
7 years											
8 years											
9 years											
10 or more	years										
2. In how a goals, dim	•							_	rograms	with differe	ent
0	1	2	3	4	5	6	7	8	9	10+	
3. Approxi	mately h	now mai	ny diffe	rent ind	ividual	particip	ants ha	ve you a	assessed	!?	

[Note: Participants who indicate that they have worked in 0 or 1 assessment center or that they have assessed 0 or 1-9 participants will be directed to the following message:]

10-19 20-29 30-39 40-49 50-59 60-69 70-79 80-89 90-99

100 +

Thank you for your interest, but you do not meet the inclusion criteria to participate in this study.

[All other participants will proceed to the instructions on the next page:]

Instructions:

As an experienced assessor, you may have noticed that some behavioral dimensions or competencies can be more appropriately assessed in some exercises than in others. We would like your opinions about the relevance of several commonly assessed dimensions to one particular simulation exercise we are using as part of a research study at Colorado State University.

This exercise is designed for use with undergraduate students and places the participant in the role of Resident Advisor in a fictitious residence hall in a fictitious university. The exercise is a Leaderless Group Discussion with no assigned roles, and is intended to be quite brief. Of course, a full assessment center process would include multiple exercises and other measures, but at present, we are only concerned with this particular exercise.

Please take a few minutes to review the exercise materials by clicking the link below:

https://dl.dropbox.com/u/85442541/Group%20Discussion%20Exercise%20Materials.pdf

After you have looked over the materials, click "Continue" to proceed with the survey.

Below are names and brief definitions of 33 commonly used assessment center dimensions (based on a list compiled by Thornton & Byham, 1982).

Please read each definition, and then decide how relevant that dimension is to the exercise materials, using a scale from 1 = "not relevant in the exercise" to 7 = "extremely relevant in the exercise." Make sure to base your judgment on the definitions provided here, not just the name of the dimension.

Dimensions:

Oral Communication: Effective expression in individual or group situations (includes gestures and nonverbal communication)

Oral Presentation: Effective expression when presenting ideas or tasks to an individual or to a group when given time for preparation (includes gestures and nonverbal communication)

Written Communication: Clear expression of ideas in writing and use of good grammatical form

Planning and Organizing: Establishing a course of action for self and/or others to accomplish a specific goal; planning proper assignments of personnel and appropriate allocation of resources

Delegation: Utilizing subordinates effectively; allocating decision making and other responsibilities to the appropriate subordinates

Control: Establishing procedures to monitor and/or regulate processes, tasks, or activities of subordinates and job activities and responsibilities; taking action to monitor the results of delegated assignments or projects

Development of Subordinates: Developing the skills and competencies of subordinates through training and development activities related to current and future jobs

Organizational Sensitivity: Action that indicates an awareness of the impact and implications of decisions on other components of the organization

Extraorganizational Sensitivity: Action that indicates an awareness of the impact and implications of decisions relevant to societal and governmental factors

Extraorganizational Awareness: Use of knowledge of changing societal and governmental pressures outside the organization to identify potential problems and opportunities

Organizational Awareness: Use of knowledge of changing situations and pressures inside the organization to identify potential organizational problems and opportunities

Sensitivity: Actions that indicate a consideration for the feelings and needs of others

Leadership: Utilization of appropriate interpersonal styles and methods in guiding individuals (subordinates, peers, and superiors) or groups toward task accomplishment

Recognition of Employee Safety Needs: Awareness of conditions that affect employees' safety needs and taking actions t resolve inadequacies and discrepancies

Analysis: Identifying problems, securing relevant information, relating data from different sources, and identifying possible causes of problems

Judgment: Developing alternative courses of action and making decisions based on logical assumptions that reflect factual information

Creativity: Generating and/or recognizing imaginative solutions and innovations in work-related situations

Risk Taking: Taking or initiating action that involves a deliberate gamble in order to achieve a recognized benefit or advantage

Decisiveness: Readiness to make decisions, render judgments, take action, or commit oneself

Technical and Professional Knowledge: Level of understanding of relevant technical and professional information

Energy: Maintaining a high activity level

Range of Interests: Breadth and diversity of general business related knowledge- well informed

Initiative: Active attempts to influence events to achieve goals; self-starting rather than passive acceptance. Taking action to achieve goals beyond those called for; originating action

Tolerance for Stress: Stability of performance under pressure and/or opposition

Adaptability: Maintaining effectiveness in varying environments, with various tasks, responsibilities, or people

Independence: Taking action in which the dominant influence is one's own convictions rather than the influence of others' opinions

Tenacity: Staying with a position or plan of action until the desired objective is achieved or is no longer reasonably attainable

Job Motivation: The extent to which activities and responsibilities available in the job overlap with the activities and responsibilities that result in personal satisfaction

Career Ambition: The expressed desire to advance to higher job levels with active efforts toward self-development for advancement

Integrity: Maintaining social, ethical, and organizational norms in job-related activities

Work Standards: Setting high goals or standards of performance for self, subordinates, other, and organization. Dissatisfied with average performance

Resilience: Handling disappointment and/or rejection while maintaining effectiveness

Practical Learning: Assimilating and applying new, job-related information, taking into consideration rate and complexity

Appendix B

EXERCISE OVERVIEW

In this exercise, you will need to review the materials provided, participate in a discussion with a group of other resident assistants, and come to a consensus regarding planning a social event for Thornton Hall.

The exercise will last a total of 20 minutes:

5 minutes to review the materials and prepare for the discussion, and 15 minutes to participate in the group discussion.

Your exercise packet contains the following materials:

This overview sheet (1 page) Instructions (1 page) Event planning guidelines (2 pages) List of past fall programs (1 page)

The group has been given the following materials: Group planning worksheet (1 page)

You may also refer to any background information provided about Thornton Hall and the resident assistant program. Utilizing relevant information from multiple sources is an important objective of this exercise.

The following items are available for your use in this exercise:

Paper Pens White board Markers

If you have any questions at any point, please ask an administrator.

PARTICIPANT INSTRUCTIONS

You are a new resident assistant (RA) in Thornton Hall, a coed residence hall at a midsized public university. In this exercise, you and several other RAs (one from each floor in Thornton) have been asked to work together to plan your hall's first major social program of the semester. Your Residence Director is unable to attend the meeting, but has provided some general guidelines for the event, as well as a list of past hall programs. You may use this as a starting point for ideas or come up with new ideas on your own. You have also been given a profile that describes in a general way the residents of your floor. You should try to consider *all* of the residents of Thornton in planning your event, because the goal is to have as many students as possible in attendance.

The first social event of the year is considered very important for creating a positive, welcoming atmosphere and fostering good relationships among residents. Thornton Hall has acquired a reputation over the past several years as one of the best places to live on campus because of the high level of social interaction and the great RA staff. As an RA, you will be required to attend the event and promote it to your residents, so it is important to choose an event that you personally can be enthusiastic about and involved in. If the event is a success, your job as an RA will be much easier because your residents will have a positive first impression of you and of the hall. As an additional incentive, your resident director, Chris, has offered to pay for a pizza party for the floor with the most residents attending.

You do not need to plan every detail of the event within the meeting time, but you must **decide** what the event will be. Also, you should **determine which group member(s)** will be responsible for which aspects of the event (e.g., publicity, decorating, obtaining supplies, etc.). The specific tasks that need to be done will depend on the event that you choose, but every group member should be responsible for some part of the preparation for the event, and you need to be sure that all of the necessary tasks will be done. You should try to divide the tasks as fairly as possible.

All members of your group must agree on the choice of event and on the assignment of tasks. You have been given a worksheet with space for a brief description of the event and a list of the tasks assigned to each group member. You will turn in this worksheet at the end of the exercise. All group members should write their participant ID numbers (please do NOT sign your name or use your initials!) in the space provided on the worksheet to indicate that they agree with the decisions made. If any group member is unwilling to agree with the plan, the group should keep discussing and make changes to the plan if necessary to arrive at a plan that all members can agree to.

Remember that you will have **5 minutes** to read these materials and prepare for the discussion and then **15 minutes** for your discussion. During your preparation time, try to read all of the materials you have been given carefully. You may want to make notes about important points or begin generating some ideas before you begin discussion.

You may use the white board and markers that are present in the room to structure your discussion if you so desire.

Hey gang -

Please keep these things in mind when planning the social. Some of these things are university policy; others are just things we've learned from past events. Within these guidelines, anything goes, so be creative! I'm looking forward to a fantastic program!

- Chris Conway Thornton Residence Director

- We have a very diverse group here at Thornton including international students, athletes, fraternity & sorority members, honor students, etc. so please choose an event that will appeal to lots of people.
- A major goal of fall events is to encourage interaction between upper- and underclassmen. Right now we have 187 residents in the hall: 113 freshmen, 48 sophomores, 17 juniors, and 9 seniors. I'd like to see at least 100 people attend the event more if possible! The floor with the most attendance will receive a free pizza party at the end of the semester!
- The event needs to take place sometime in the month of September. September days here are usually warm, but evenings can be quite cool. This may be important if you are planning an outdoor activity.
- We have a budget of \$500 for the event, which must cover everything (food, decorations, entertainment, etc.). You do not need to create a detailed budget right now, but you should keep the budget in mind when deciding what event to plan so that it will be feasible (for example, taking all hall residents to Cancun for the weekend would be a very popular event, but is not very feasible).
- The facilities within the residence hall will be available for your use. This includes common lounges on each floor (which can only hold 60 people), residence lounges (which can hold 200 people), a cafeteria (can hold 200+ people), and 2 outdoor courtyards. While these areas can be used, they must be kept clean and in good condition (if, for example, you choose to plan a water fight, make sure you do not do this in the lounges or cafeteria).
- You are allowed to hold the social outside of the designated residence areas, on- or off-campus, but keep in mind that transportation problems may limit attendance at off-campus locations.
- According to school policy, no alcohol is permitted at official hall events. You cannot
 provide alcohol to residents or allow them to bring their own. This is taken very seriously
 another hall last year lost all their activity funding when two residents were found with beer
 at a floor program.

• Last year, two students were seriously injured as a result of hazing activities conducted by two different organizations (including another residence hall). As a result, the university has a new, *very* strict hazing policy. In this policy, hazing is defined as any activity with the potential to harm students physically or emotionally (e.g., embarrassment, humiliation, etc.). The penalties for violating the policy are pretty harsh, so we want to avoid this if at all possible! We don't want anything that could be perceived as hazing in any way.

2011 – Bonfire and marshmallow roast at Russel Woods, about 3 miles away from campus.

Attendance: 95

Cost: \$200 to reserve site, \$150 for marshmallows, graham crackers, chocolate, chips, and cookies, \$20 for publicity.

Reaction: Those who attended enjoyed the event. There were a few complaints about how quickly the food ran out. Several students indicated that they would have come but did not have transportation.

2010 – Water Wars on the front lawn, including water balloon games, water guns, and slip-n-slide.

Attendance: 96

Cost: \$300 for slip-n-slide, water balloons, and water guns, \$150 for prizes (in the form of gift cards to local businesses), \$25 for publicity.

Reaction: Very positive, except for the incident in which a freshman sprained her ankle in one game. Residents also remarked that they thought the prizes were chosen well.

2009 – Pizza and "Battles of the Sexes" (trivia game with two teams of hall residents).

Attendance: 145

Cost: \$350 for pizza and soft drinks, \$50 for decorations and publicity.

Reaction: Mostly positive. About 35 students are pizza but did not stay for the program. One Women's Studies major said she thought the program was offensive.

2008 – "Images of Thornton" – mural painting in the common room.

Attendance: 43

Cost: \$100 for paint, \$150 for painting supplies, \$150 for chips, pretzels and candy, \$15 for publicity. **Reaction:** Positive among attendees, but attendance was low. Many students were (and still are) critical of the completed mural.

2007 – Capture the flag tournament (north wing v. south wing) and cookout.

Attendance: 98

Cost: \$30 for equipment, \$200 for t-shirts, \$250 for food (chips, burgers, hot-dogs), \$15 for publicity. **Reaction:** Very positive. Floors interacted, competition was friendly, and almost all attendees stayed for the cookout that followed the game.

2006 – Attended home football game with tailgate party.

Attendance: game, 35; party, 97

Cost: \$350 for hot-dogs, burgers, chips, chicken, and soft drinks, \$100 for two grills, \$50 for decorations and publicity. Residents had to purchase their own tickets to the game, but did not need to attend the game to attend the party.

Reaction: Moderately positive. The home team lost 42-3, but the weather was nice and residents seemed to enjoy the party. The people grilling didn't have much chance to interact and later remarked that they wished there were more people to help cook the food.

2005 – Karaoke and open mic comedy night.

Attendance: 132

Cost: \$225 for equipment rental, \$200 for snacks (chips, pretzels, candy, soft drinks), \$20 for publicity, \$50 for prizes (in the form of CDs)

Reaction: Positive, though several students complained that song availability was limited. One of the winners expressed displeasure with their prize.

GROUP WORKSHEET

ive a brief description	on of the event:				
Tho is doing what to	prepare for this	event?			
RA Number:	Task(s):	• •			
)					
)					
)					
)					
gn your RA numbo oove:			ate your agr	eement with t	he plan describ

Appendix C

Genos Emotional Intelligence Inventory-Short

Copyright © Genos 2007

Below are a series of 14 statements. Please circle the number corresponding to the statement that is most indicative of the way you typically think, feel and act at work.

If you make a mistake simply cross it out and fill in the correct response.

- 1 Almost Never
- 2 Seldom
- 3 Sometimes
- 4 Usually
- 5 Almost Always
- 1. I appropriately communicate decisions.
- 2. I fail to recognize how my feelings drive my behavior at work. (R)
- 3. When upset at work, I still think clearly.
- 4. I fail to handle stressful situations at work effectively. (R)
- 5. I understand the things that make people feel optimistic at work.
- 6. I fail to keep calm in difficult situations at work. (R)
- 7. I am effective in helping others feel positive at work.
- 8. I find it difficult to identify the things that motivate people at work. (R)
- 9. I consider the way others may react to decisions when communicating them.
- 10. I have trouble finding the right words to express how I feel at work. (R)
- 11. When I get frustrated with something at work I discuss my frustration appropriately.
- 12. I don't know what to do or say when colleagues get upset at work. (R)

- 13. I am aware of my mood state at work.
- 14. I effectively deal with things that annoy me at work. (R)

Appendix D

Snyder (1974) Self-monitoring scale

in the strictest confidence

The statements on the following pages concern your personal reactions to a number of different situations. No two statements are exactly alike, so consider each statement carefully before answering. If a statement is TRUE or MOSTLY TRUE as applied to you, blacken the space marked T on the answer sheet. If a statement is FALSE or NOT USUALLY TRUE as applied to you, blacken the space marked F. Do not put your answers on this test booklet itself. It is important that you answer as frankly and as honestly as you can. Your answers will be kept

- 1. I find it hard to imitate the behavior of other people. (F)
- 2. My behavior is usually an expression of my true inner feelings, attitudes, and beliefs. (F)
- 3. At parties and social gatherings, I do not attempt to do or say things that others will like. (F)
- 4. I can only argue for ideas which I already believe. (F)
- 5. I can make impromptu speeches even on topics about which I have almost no information. (T)
- 6. I guess I put on a show to impress or entertain people. (T)
- 7. When I am uncertain how to act in a social situation, I look to the behavior of others for cues.

 (T)
- 8. I would probably make a good actor. (T)
- 9. I rarely need the advice of my friends to choose movies, books, or music. (F)
- 10. I sometimes appear to others to be experiencing deeper emotions than I actually am. (T)
- 11. I laugh more when I watch a comedy with others than when alone. (T)
- 12. In a group of people I am rarely the center of attention. (F)
- 13. In different situations and with different people, I often act like very different persons. (T)
- 14. I am not particularly good at making other people like me. (F)

- I5. Even if I am not enjoying myself, I often pretend to be having a good time. (T)
- 16. I'm not always the person I appear to be. (T)
- 17. I would not change my opinions (or the way I do things) in order to please someone else or win their favor. (F)
- 18. I have considered being an entertainer. (T)
- 19. In order to get along and be liked, I tend to be what people expect me to be rather than anything else. (T)
- 20. I have never been good at games like charades or improvisational acting. (F)
- 21. I have trouble changing my behavior to suit different people and different situations. (F)
- 22. At a party I let others keep the jokes and stories going. (F)
- 23. I feel a bit awkward in company and do not show up quite so well as I should. (F)
- 24. I can look anyone in the eye and tell a lie with a straight face (if for a right end). (T)
- 25. I may deceive people by being friendly when I really dislike them. (T)

Appendix E

Multidimensional Feedback Acceptance Scale

Kedharnath, Garrison & Gibbons (2009)

Think specifically about the feedback you received and rate your agreement with each item using a 5 point scale (1 = Strongly Disagree, 5 = Strongly Agree).

- 1. The feedback I received about my performance is accurate.
- 2. The feedback I received about my performance adequately captures my performance.
- 3. I agree with the feedback I received about my performance.
- 4. The feedback I received about my performance fits with my assessment of my performance on the assignments.
- 5. The feedback I received about my performance fits with my assessment of my performance in everyday life.
- 6. The feedback I received about my performance was specific.
- 7. The feedback I received about my performance was detailed.
- 8. The feedback I received about my performance taught me something about myself.
- 9. I believe I am now more aware of my developmental needs.
- 10. I believe I am now more aware of my skill strengths.
- 11. I believe I will be more aware of my performance on these skills in the future.
- 12. I believe that the feedback criteria are fair.
- 13. I feel that this feedback process has been fair.
- 14. The procedures used to evaluate my performance were fair.
- 15. This feedback leads me to believe that I can improve.
- 16. I believe I can successfully improve my behaviors.

- 17. I believe I can successfully improve on the behaviors suggested in the feedback.
- 18. The developmental recommendations in my feedback are specific.
- 19. The developmental recommendations in my feedback are detailed.
- 20. The feedback is easy to understand.
- 21. The way the feedback is presented makes sense.
- 22. The feedback was well organized.
- 23. I have identified at least one skill I want to develop.
- 24. I am likely to consider this feedback the next time I am at work or looking for work.
- 25. I am likely to consider this feedback when I encounter opportunities to develop.
- 26. The feedback I received will influence my effort in the future.
- 27. I plan on using this feedback to improve my performance in the near future.
- 28. I plan on following these recommendations in the future.