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This study involved the collection of pre-test and post-test data to observe whether an actor training program would increase actors' role-playing performances. Participants were three main actors employed in a Midwest university's student-based assessment center. In addition to the actors, six raters were also involved in this study. Their role was to evaluate actor performance prior to training in the fall semester and again in the spring after training. Actors completed the training program in January before starting the spring semester. Measures included the appropriateness in the length of time speaking, the ability to communicate information without sounding like it was being read verbatim, allowing participants to respond without unnecessary interruptions, presenting information without noticeable distractions, consistency in responses, presenting prompts appropriately, fully doing his or her job as an actor, and extent of going off script. Actors were also given a quiz to ensure that the information in training was obtained. Results indicated that actor performance improved from 4.2 to 4.6 on a five-point scale from the fall to the spring semester. The training was effective. Results of the quiz also indicated that the actors retained the information that was presented to them as there were no scores below 90%. In addition, the actors completed a training reaction survey. A majority of actors strongly agreed that the training was valuable, liked the presentation of material, thought it was well organized, better prepared them for their role, and helped the actors better understand their role in the assessment center.

Keywords: assessment center, actor training, training evaluation

ENHANCING ACTOR TRAINING TO INCREASE
ASSESSMENT CENTER SUCCESS

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CHAPTER ONE

Introduction

An assessment center, located at a Midwest university, was created in 2008 to be used in assessing undergraduate business school students. Every student goes through the assessment center twice during their time at the university, with 100-150 students going through every semester. Assessment takes place during the normal academic school year, with the exception of one session in the late summer for Master of Business Administration students. Actors, or role players, and raters, or assessors, come from all over the United States and apply for the positions online. Obviously, actors need to be living in the area to be on-site for exercises, but raters have more flexibility as they have access to written and recorded exercises through Canvas, an open-source learning management system. An online, self-paced rater training program is to be completed by raters during the summer prior to beginning rating in the fall semester.

The assessment center director expressed the need for an actor training program after taking notice that the actors were not fully comfortable in their roles. When actors do not have all of the necessary information to fully perform their jobs, the student participants cannot be accurately rated by assessment center raters. A needs assessment was the first step in this process as actors responded to a survey about what additions to training they felt was necessary. Experienced raters who were not new to the process and had seen several role-play videos were also surveyed to identify what areas needed the most improvement and what areas were deemed as successful.

Actors need to be refreshed and a standardized training method, such as a PowerPoint detailing all the necessary information and demonstrating an effective

performance through visual means, was hypothesized to increase the actor's confidence, comfort in role-plays, and overall performance. A major component of the actor training that was needed was the familiarization with the rating instrument that the raters use to evaluate student participants. Ultimately, there is hope that rater performance will increase in the future as the actors' performance gets better. A restriction in this research was that the researcher was working long distance from the assessment center over 600 miles away and relying completely on the use of technology for means of communication.

The purpose of this applied research project is to answer the following research questions. Will actor training improve actor performance? Will actors feel that the training was effective? And, for exploratory purposes, will any of the raters show rating errors in terms of halo or severity effects?

Literature Review

Training

Despite its potential for organizational and developmental growth, training is frequently viewed as a “nuisance and as a costly endeavor rather than a tool to boost the organization’s bottom line” (Cekada, 2010, p. 33). Levy (2010) defines training as “the formal procedures a company utilizes to facilitate learning so that the resultant behavior contributes to the company’s goals and objectives (Levy, 2010, p. 421).” “The term *training* generally refers to activities directed toward the acquisition of knowledge, skills, attitudes, or social behavior,” (Cascio & Aguinis, 2011, p. 345). Training differs from development where attributes or competencies learned might not be as immediate. Organizations are now relying on workplace learning and continuous improvement to remain competitive in today’s market (London & Moore, 1999).

In 1992, Broad and Newstrom estimated that \$50 billion was spent on formal training each year and an additional \$90 to \$120 billion was spent on less structured, or informal, training (Cekada, 2010). The cost of training continues to rise in each passing year. In their 2013 State of the Industry report, The Association for Talent Development (ATD) reported that \$164.2 billion was spent by United States organizations on employee learning and development. On average, organizations spent \$1,208 per employee on training and development in 2013 which was a 1% increase from the previous year (ATD, 2013). Approximately 31.5 hours are spent per employee on training (Miller, 2014). It is interesting to note that those numbers do not include the cost to do the training. Over 90% of companies have some kind of systematic training system.

Four characteristics have been identified among companies with effective training processes that make them distinguishable from their competitors. First, training needs to be incorporated into the company culture and all levels of employees needs to be involved. Next, training needs to be linked to the end results to be effective and worth the company's time and effort. In addition, training environments need to have feedback where improvement is continued and there are opportunities to learn. Finally, there needs to be resources invested to training, especially time and money (HR Trend Book, 2008).

Types of training techniques. There are three training and development technique categories: information-presentation techniques, simulation methods, and on-the-job training. Information-presentation techniques include lectures, conference methods, correspondence courses, videos or compact discs, reading lists, interactive multi-multimedia (such as CDs, DVDs, and videos), intranet and internet, systematic observation, and organizational development. Simulation methods include case methods, incident methods, role-playing, experimental exercises, task models, in-basket techniques, business games, assessment centers, and behavior, or competency, modeling. On-the-job training methods include orientation training, apprenticeships, on-the-job training, near-the-job training, job rotation, understudy assignments, executive coaching, and performance management (Cascio & Aguinis, 2011).

Principles enhancing learning. Feedback, also referred to as knowledge of results, allows the learner to correct mistakes made through the explanation of why the learner is wrong and what corrective action can take place along with reinforcement (Cascio & Aguinis, 2011). Greller (1980) concluded from the results of his study that supervisors have an inaccurate perception of what their subordinates value most.

Supervisors were found to consistently underestimate the importance of providing their subordinates with feedback from the task itself, comparisons to co-employees, and coworkers' comments. Supervisors were also found to overestimate the importance of comments from the boss, formal rewards, and informal assignments among subordinates.

The influence of trainer behavior on trainee learning can also affect the learning process. A significant study in 1982 by Eden and Shani demonstrated the effects of the Pygmalion effect. This study showed that in a 15-week combat command course, trainers who expected higher performance in their students led to significantly higher scores among trainees on objective achievement tests, more positive attitudes, and perceived more positive leadership behaviors (Eden & Schani, 1982).

Practicing. It is well known that practice is necessary for skill acquisition (Salas, & Cannon-Bowers, 2001). Most commonly, it is not enough for a trainee to read and restate what he or she is instructed to do. Practicing skills allows for feedback. The traditional approach to practicing emphasizes avoiding errors through the teaching of the correct methods. Error-management training is an opposite approach where trainees reflect upon the mistakes that they were encouraged to make which helps weaken the chance of repeating those mistakes (Cascio & Aguinis, 2011).

Overlearning. Repetition of performing a task over and over correctly is known as overlearning. Tasks that are not performed as frequently and come along with high levels of stress are excellent to overlearn. When tasks are a part of a person's daily routine, overlearning becomes less important. However, skills are likely to slowly weaken if there is no refresher training after a period of five to six weeks. In Schendel and Hagman's (1982) study on the efficiency of psychomotor skills, results showed that

overtraining was superior to refresher training in combatting forgetting among participants assembling and disassembling an M60 machine gun.

In a study by Hagman (1980), results indicated that retention was found to improve with three repetitions among fuel and electrical repairmen who performed between zero to four repetitions on testing charging system electrical output. Interestingly, there was no added benefit from a fourth repetition. The transfer was better after one to four repetitions than familiarization, or no repetitions, alone. This research is indicative that an optimum number exists for each task in terms of task repetition which is all dependent upon training conditions.

Length of practice sessions. Humans can only hold their focus for so long until it becomes tiring. Similar to comparing undergraduate and graduate level college classes, practice can be distributed or massed. Distributed practice can be compared to a typical undergraduate class where a student will take three credit hours spread out through an entire semester for an hour three times a week. Massed practice can be compared to a graduate level class where the information is spread throughout an entire semester, but class is held for three hours at a time only once a week. Research, by Goldstein and Ford (2002), has shown that distributive practice is usually better compared to massed practice due to the beneficial rest breaks.

Learning climate. Baumgartel, Sullivan, and Dunn (1978) found several interesting results on the topic of climate on learning. They found that people in more favorable organizational climates are more likely to apply new knowledge. Having the freedom to set performance goals and being encouraged to take risks are examples given of a favorable organizational climate. Climate had the greatest effect on employees with

innovative dispositions and the effect was most apparent in lower levels within the organization.

Motivation. There are variables to keep in mind which can either enhance or take away from the impact of training. A training program might be nearly flawless in terms of the quality, but a trainee's readiness for training and motivation plays a major role in the process (Cascio & Aguinis, 2011). Motivation to learn is crucial to both learning and training. It is very difficult to learn if one does not have the desire to learn. Training motivation "can be conceptualized as the direction, effort, intensity, and persistence that trainees apply to learning-oriented activities before, during, and after training" (Salas & Cannon-Bowers, 2001, p. 479).

There are several characteristics in predicting a trainee's motivation to learn. These include pre-training self-efficacy, valence of training, job involvement, organizational commitment, cognitive ability, age, career exploration, personality characteristics such as conscientiousness, goal orientation, and anxiety (Cascio & Aguinis; Salas & Cannon-Bowers, 2001). Many studies in the early to mid-1990s found that trainees' motivation to learn and to attend training had an effect on willingness to apply newly acquired knowledge, skills, abilities, and other characteristics on the job and retention rates (Martocchio & Webster, 1992; Quinones, 1995; & Tannenbaum & Yukl, 1992). Trainability "refers to a person's ability to acquire the skills, knowledge, or behavior necessary to perform a job at a given level and to achieve these outcomes in a given time," which is another factor to consider in the training process (Wexley, 1984, p. 527).

Motivation can be raised through the implementation of a goal in connection to performance. Goals should be difficult but not impossible and clearly defined. Setting goals are often beneficial, but one cannot ignore the possible side effects. Other equally important aspects of performance might get ignored or be given less effort. The pressure to cheat to meet such goals might occur. Stress is also likely to increase, which is debatably either a positive or a negative battle (Cascio & Aguinis, 2011).

Computer-based training. Computer-based training has many forms and has begun to shift the traditional instructor-led classroom aside. The military and education industry have even turned to computer-based training (Salas & Cannon-Bowers, 2001). This form of training, using any combination of graphics, text, video, audio, and animation from a computer in delivering job-relevant knowledge and skills, often leads to a more dynamic experience. According to Cascio and Aguinis (2011), advantages of computer-based training are the flexibility, adaptability, representation of adaptive learning, and the potential to lower training costs. Computer simulations have also been found to link to lower level problem-solving (Weisbrodt & Williams, 1995). In addition, computer-based exercises produce extremely quick scoring and can track each move an assessee makes in the path to the final solution (Howard, 1997).

Though all of these advantages exist, is computer-based training any more or less effective than traditional instructor-led training? It was found in two meta-analyses that when both formats are used to teach the same type of knowledge, whether declarative or procedural, that there were no significant differences (Sitzmann, Kraiger, Stewart, & Wisher, 2006; Zhao, Lei, Lai, & Tan, 2005).

Another study by Hall and Freda (1982) found that individualized instruction in the form of self-paced or computer managed learning was equally effective to conventional instruction among over 5000 graduates of 19 Naval technical schools. Not surprisingly, individualized instruction was more beneficial to higher performing students when compared to lower performing students. Higher performing students were able to complete training in less time and had higher course grades at the completion of the semester. A key takeaway from this study was that there proved to be no one method of instruction to be universally more effective for all training types when there was differing ability among students. This means that a combination of methods would most likely be most effective compared to only using one method for an entire course or training session.

To gain a better understanding of whether distance training is appropriate, the level of interaction necessary between trainees and instructors must be determined and the nature of interaction needs to be specialized. Consider if it is necessary for the trainers to physically see their trainees during instruction and whether or not questions and concerns can be addressed through chat rooms, email, or over the phone (Salas & Canon-Bowers, 2001).

The results from studies such as Brown and Ford (2002) and Kozlowski and Bell (2003) show that even the most expensive and appealing training can be ineffective if it is poorly designed in that it is not stimulating and does not support training. Howard (1997) also notes that it is possible to still have a poor training program even though there are strong correlations between training performance and selection techniques. In

preventative measures, Howard suggests that the work sample and the training program should be based on a task analysis.

When selecting a training technique, it is important to follow a two-step sequence of determining what is to be learned, then choosing the methods that are the most appropriate. According to Cascio and Aguinis, (2011), trainers often choose what method to use first. They then force the method to fit the needs, which is a waste of time, people, and money. When selecting a technique, one must keep in mind that “a technique is adequate to the extent that it proves the minimum conditions for effective learning to take place” (Cascio & Aguinis, 2011, p. 371).

Developing a training program. Developing a training program consists of three major phases consisting of a needs assessment or planning phase, training and development or implementation phase, and an evaluation phase. Cascio and Aguinis (2011) refer to the needs assessment as “the foundation for the entire program,” which shows how crucial it is to this process as the training might not match up to the organization’s needs (p. 346).

Defining what is to be learned. An important process in implementing a new actor training program at the university’s assessment center involved defining exactly what needed to be learned. According to Cascio and Aguinis (2011), there are six steps in defining what is to be learned and what the substantive content of training should be. These steps are analyzing the training and development subsystem and its interaction with other systems, determining the training needs, specifying the training objectives, decomposing the learning task into its structural components, determining an optimal sequence of the components, and considering alternative ways of learning. Throughout

these steps, the overall goal of linking training content to desired job behaviors needs to be kept in mind.

Training needs assessment. To determine whether training could solve problems in the workplace, a training assessment is often used. A training needs assessment is “an ongoing process of gathering data to determine what training needs exist so that training can be developed to help the organization accomplish its objectives” (Brown, 2002, p. 569). More simply put, it is “the process of collecting information about an expressed or implied organizational need that could be met by conducting training” (Barbazette, 2006, p. 5). The needs assessment determines the need for training, identifies what training is needed, and looks at the type and scope of resources needed to support such a training program (Cekada, 2010; Wexley, 1984).

There are three types of traditional needs assessments, plus an additional two that are more recent. Beginning with the traditional types of needs assessments, there is organizational analysis, task analysis, and person analysis. First, an organizational analysis is using the big picture perspective in determining where the training needs lay in the organization and what areas emphasize training to goals and the overall organizational mission statement. In other words, the organizational analysis is establishing what training rhythm the organization needs (Cascio & Aguinis, 2011). When conducting an organizational analysis, factors such as absenteeism, safety incidents, lost work days, turnover rates, grievances, customer complaints, and any other performance related problems can be collected and evaluated in the identification of performance improvement through training (Cekada, 2010).

Task analysis is breaking down training into the knowledge, skills, abilities, and other characteristics needed (Cascio & Aguinis, 2011). This involves looking at what specific kind or type of training is needed through comparison of KSAO requirements and actual KSAOs. A gap between the two is an obvious indication of where training is needed. Task analysis could range from needing new software to sexual harassment training (Cekada, 2010).

The last traditional type of needs assessment is person analysis which involves identifying what specific training is needed at the individual level (Cascio & Aguinis, 2011). Common methods of identifying individual training needs can come from performance reviews, interviews, or tests (Cekada, 2010).

Two more recent types of needs assessment are technological analysis and demographic analysis. Because technology is ever-changing and organizations are always looking for ways to keep ahead of the competition, technological analysis is used to determine what technological training an organization needs for the future to be ahead of the curve. The goal is to get employees trained before the new technological integration becomes the standard or norm.

The other more recent type of needs assessment is the demographic analysis which involves identifying what the labor pool needs in terms of training. An example would be the need of a remedial math, reading, or writing class (Cascio & Aguinis, 2011).

According to Warshauer (1988), there are several benefits to a well-thought out training needs assessment. Benefits include “increasing the commitment of management and potential participants to ongoing training and development, clarifying crucial

organizational issues, providing for the best use of limited resources, and formulating strategies for how to proceed with training efforts” (p. 16).

Training evaluation and learning outcomes. Studies such as Brown’s (2005) indicate that the outcomes of training activities are not always thoroughly assessed by most companies. When training outcomes are assessed, it is often no more involved than getting the trainees’ reactions upon finishing the training program (Brown, 2005).

At the very least, Sackett and Mullen (1993) provide four reasons for why training should be evaluated. First, evaluating training can be used to make decisions about the future use of a training program or technique. These decisions might include continuing the training program, modifying it in various ways, or eliminating it if it is deemed unnecessary. Evaluating training can be used to make decisions at the individual level. These decisions might include certifying that a trainee is competent or needs additional training in specified areas. Overall, evaluating training can contribute to the scientific understanding of the training process. Lastly, evaluations coming from training can be used as a means of public relations by showing documentation of training success and its impact. Program evaluation is defined as “a set of procedures designed to systematically collect valid descriptive and judgmental information with regard to the ways in which a planned change effort has altered (or has failed to alter) organizational processes” (Synder, Raben, & Farr, 1980, p. 433).

Demographic characteristics impact on training. There are contradicting findings in the literature on the relationship of age and training outcomes. Beier and Ackerman (2005) found a positive relationship of age with training outcomes and job performance while Kubeck, Delp, Haslett, and McDaniel (1996) found that older learners

progress at a slower rate and perform poorer than younger learners. These findings indicate that moderating factors are likely to further influence the relationship between age and training success.

In addition to age, gender is another potential moderator of the relationship between age and training success. Again, studies that relate gender to training success find varying results, such as Gully & Chen (2010). The aim of Bausch, Michel, and Sonntag's (2014) study is to "analyze whether age relates to self-efficacy and training success and whether gender affects the relationships" (p. 172).

Bausch et al. (2005) found self-efficacy after training was significantly related to training success ($r = 0.121, p > 0.05$). As the authors expected, "the finding showed that self-efficacy before and after training was differently related to training success, with a stronger relationship between self-efficacy after training and training success ($r = 0.248, p = 0.01$) compared with self-efficacy before training and training success ($r = 0.127, p = 0.189, ns$)" (Bausch et al., 2014, p. 177). A significant interaction between age and gender on the development of self-efficacy in training was found. Additional findings suggest that older female learners compared to younger female learners underestimate their abilities before training. Results also indicated that men tend to overestimate and women tend to underestimate their abilities, which is consistent with previous literature. The authors noted that gender had a moderating effect on the relation of age and training success.

Kirkpatrick's training evaluation. According to Kirkpatrick (1998), there are three reasons why one should evaluate training programs. First, evaluation tells the organization how to improve future programs. Next, evaluation helps in determining

whether the program should be continued or dropped. The third and final reason for evaluating is the justification of the training department existence, whether that be an individual department or fully in the hands of the human resources department.

Kirkpatrick's training evaluation model has been widely used and has also been criticized, misused, expanded, refined, adapted, and expanded (Salas & Cannon-Bowers, 2001). His model has four levels: reaction, learning, behavior, and results. Level one is focused on reaction, specifically how trainees reacted to the training in which they received. Kirkpatrick refers to reaction, or level one, as a measure of customer service (Kirkpatrick, 1998). This level should answer the following questions. Did the trainee feel that the training was worth his or her time? Did they feel it was useful? What were the strengths and weaknesses of the training? Did the trainees like the venue and the presentation style? Were personal learning style accommodations met? Answers to these questions can be obtained through a typical post-training questionnaire and also through simple observation in body language and verbal feedback (Klenke, 2013).

In level two, trainers strive for trainees to have a change in attitude and increase skills and knowledge as a result of training. Learning cannot be evaluated unless objectives are determined (Kirkpatrick, 1998). To test the levels of learning in participants, a pre-test/post-test method is often appropriate. This will allow a comparison of what the trainee already knew coming into training with what, if anything, he or she learned upon completion of training. If results indicate that a majority of trainees already knew and were familiar with the learning objectives, this would tell the trainers that the training was not really necessary. Though multiple choice questions are often user-friendly, it is easy for test takers to master them without really taking in all of the

knowledge that was desired of the trainers. The addition of short essay questions will better show the trainee has obtained the desired knowledge (Klenke, 2013).

Kirkpatrick (1998) stated that a common mistake of trainers is to bypass levels one and two, going straight for level three to change the behavior of trainees. In training, behavior is defined “as the extent to which change in behavior has occurred because the participant attended the training program” (Kirkpatrick, 1998, p. 20). Level three looks specifically at how the trainees apply the newly learned information. Kirkpatrick lists four conditions that must take place before change will occur: “the person must have the desire to change; the person must know what to do and how to do it; the person must work in the right climate; and the person must be rewarded for changing” (Kirkpatrick, 1998, p. 20).

Level four deals with whether the final results and outcomes of training are good for business, the employee, and the bottom line (Klenke, 2013). In the context of training, results are defined as “the final results that occurred because the participants attended the program” (Kirkpatrick, 1998, p. 23). Results can range from increased production, improved quality, decreased costs, reduced frequency of accidents, increase in sales, reduced turnover, and higher profits among other intrinsic results, such as motivation and satisfaction. The results are ultimately the reason for holding the training program.

Learning outcomes. In 1984, Robert Gagne identified five primary learning outcomes for training. First, verbal information, also known as declarative knowledge, identifies what specific facts or information should be known upon the completion of training. This addresses the question whether one knows what one should know. Second, intellectual skills, also known as procedural knowledge, identifies if the trainee

understands the rules and concepts of how to do the learned concepts. Simply put, does one know how to apply the information learned? Third comes cognitive strategies, which identifies what problem-solving skills are necessary. When normal processes break down, does one know how to cope with unexpected issues? Fourth are motor-skills which identify what one should be able to physically do upon the completion of training. Finally, attitude is the fifth learning outcome for training and identifies what attitude one should express and embrace once training is complete. Research indicates that most attitudes are learned, and this is a very important outcome of training (Cascio & Aguinis, 2011).

Threats to training. There are numerous threats that can potentially affect the training process. These threats include a history of specific events occurring before or after the measurements in addition to the training, the natural aging and maturation of participants, the effect of pre-test on post-test performance, instrumentation, statistical regression, differential selection, attrition, the interaction of differential selection with training, reactive effects of the research situation, and multiple-treatment interference where past training affects the current training (Cascio & Aguinis, 2011).

Assessment centers

An assessment center “consists of a standardized evaluation of behavior based on multiple inputs” (Guidelines, 2015, p. 1248). According to Waldman and Korbar (2004), assessment centers should be viewed as a form of a standardized test. By this, they mean that “although the hallmark of an assessment center is its behavioral or performance-based exercises, administration and scoring are conducted under standardized procedures,

as is the case with a number of more traditional paper-and-pencil tests” (Waldman & Korbar, 2004, p. 153).

Assessment centers have multiple purposes. Many different job-related abilities and skills can be measured through assessment centers, but the most commonly assessed include interpersonal, communication, planning, organizing, and analytical skills assessed through simulations. Cognitive ability tests, personality inventories, and job knowledge tests are often also used in conjunction. Multiple trained raters are most typically used to observe, classify, and evaluate behaviors which are scored at the end of the assessments (Types, 2015). The most common purposes of assessment centers in the public sector include prediction for personnel selection or promotion (Guidelines). Assessment centers can also be used in career development, organizational development, and succession planning. Depending on the purpose, the exercises become more or less job specific. When used in career development, the quality of assessor comments tends to be most important data, while a rank-ordered list of candidates would be useful in selection (Joiner, 2002).

History. Assessment centers date back to World War I when Germany was the first to utilize their methods to select officers for war. The United States Office of Strategic Services later began using them during World War II for selection purposes as a way to objectively choose military and civilian recruits for espionage activities. The first private sector company to use assessment centers was American Telegraph and Telephone, also known as AT&T. In the 1950's, AT&T utilized the methods in predicting the performance of managers, which is one of the most traditional uses of assessment centers. Around this time, the director of human resources at AT&T, Dr. Douglass Bray,

conducted a landmark 25-year longitudinal study that followed the careers of managers as they rose in the ranks of their company, showing that organizational achievement could be successfully predicted (History, 2016). According to Howard (1997), “the big breakthrough for the dispersion of assessment centers was the founding in the early 1970s of consulting companies that packaged assessment materials for many organizations to use” (p. 17).

Advantages and disadvantages. The use of assessment centers comes with advantages and disadvantages. On the positive side, they can reduce business costs in the identification of candidates for hiring, promotion, or training who possess the necessary skills and abilities. There tends to be good face validity as participants can see a relationship between the tests and the job which leads to a positive view (Types, 2015). Research has shown there are generally positive attitudes towards assessment centers and the feedback received from them (Dodd, 1977; Dulewicz, 1991; Thornton & Byham, 1982). Participants typically feel that exercises are challenging, but are fair (Howard, 1997).

There have been studies, such as Baisden and Robertson (1993) and Jones and Bradley (1994), that have shown that participants who perform better in the exercises tend to have more favorable opinions of assessment centers, which is what one would expect. However, Dulewicz (1991) found opposite results. The possibility exists that people have negative attitudes toward assessment centers simply because it is natural to dislike the experience of being evaluated (Howard, 1997).

Assessment centers can provide valuable feedback regarding needed training and development among employees. In addition, assessment centers focus more heavily on

behavioral demonstration than simply assessing individual characteristics. From a legal standpoint, results are less likely to differ by gender and race in comparison to other types of employment tests.

On the negative side, assessment centers can require more time and are more costly to create and to administer as they require more labor, such as raters and role-players, than most other employment tests (Types, 2015). Hinrichs' (1978) wanted to see if there were cheaper substitutes to assessment centers. Though other methods combined with assessment centers made them even more effective, the assessment center added interpersonal skills that other methods were not as effective in measuring (Howard, 1997). Ultimately, the purpose of the assessment center and the goals the organization wants to achieve are critical in determining if other measures can potentially replace assessment centers.

Effectiveness as selection tool. In the 1970s, the literature on assessment centers lacked much criterion-related validity in that there were very few sources of studies; also assessment centers had too many variations in components, little replication, and numerous examples of criterion contamination. However, views of assessment centers have changed over the years (Howard, 1974; Klimoski & Strickland, 1997). According to Howard (1997), there is no doubt that assessment centers now have solid criterion-related validity. Assessment centers have been identified as very effective selection tools by other researchers in the literature (Gaugler, Rosenthal, Thornton, & Bentson, 1987; Howard, 1997; Schmitt, Gooding, Noe, & Kirsch, 1984). Validity is strong and ranges from .50 to .60 but can only be as good as the predictors. Typically, the highest validities take place when industrial and organizational psychologists are involved (Cascio &

Aguinis, 2011). Reliability can be increased through clearly defined rating dimensions and well-trained raters. The use of two or more raters has shown average inter-rater correlations ranging from .30 to .80, but four or more raters can increase reliability from around .60 to .88 (Lowry, 1994; Rigglo et al., 2003). Research has shown that training makes the most effective raters. Schleicher, Day, Mayes, and Riggio (1999) used all student raters in their study and found that videotaped exercises produced the highest levels of agreements among raters. Adverse impact can also potentially be decreased (Cascio & Aguinis, 2011).

Examples of change. According to Howard (1997), “assessment centers lead change by providing a way to define and measure the competencies and supporting behaviors that people need to meet future challenges” (Howard, 1997, p. 31). Some examples of change produced in the outputs of assessment centers include the following situations: An assessment center was used by a Dutch hospital to facilitate a turnaround after a merger (Van Woerkom & Feltmann, 1993); Assessments were used to implement strategic organizational change in a Silicon Valley technology firm and communications company (Adler, 1995); three developmental assessment centers were used as a follow-on to a re-engineering effort for a jet manufacturer (Fleisch, 1995).

Though effective, assessment centers are one of the more costly assessment tools as they cannot run efficiently without the use of raters or assessors (Rigglo et al., 2003). Other equally important roles include the assessment center administrator, the assessment center coordinator, role players, and organizational decision makers (Guidelines, 2015). The use of online scoring and the growing use of technology to record videos which can be posted online for later reviewing allows for more flexibility for raters. This is one of

the ways that the university's assessment center is able to rate so many students throughout the school year.

Purposes. Beyond the extent of using assessment centers for selection and promotion, human resource functions such as recruitment, placement, development, proficiency assessment, organizational development and human resource planning, and career and succession planning are additional uses of assessment centers. Assessment centers can also provide realistic job previews, can diagnose strengths and deficiencies to aid in training and development as well as accreditation purposes, support organizational change efforts, and can help employees work better in team situations (Howard, 1997).

Essential elements of assessment centers. All assessment centers must contain ten essential elements. First, assessment centers must have a systematic analysis to determine job-relevant behavioral constructs. Behavioral dimensions are the focal constructs assessed in traditional assessment centers and “are defined as a constellation or group of behaviors that are specific, observable, and verifiable; that can be reliably and logically classified together; and related to the job success” (Guidelines, 2015, p. 1248). Competency or KSAOs are other names that get used synonymously with dimensions.

The second element is behavioral classification. Behaviors need to be classified according to the behavioral constructs by trained assessors. Next, there needs to be multiple assessment center components, some of which include simulation exercises, structured interviews, and situational judgment tests. Each assessment component is chosen and developed “to elicit a variety of behaviors and information relevant to the behavioral constructs” (Guidelines, 2015, p. 1249). A test of reliability, objective, and relevant behaviors should be identified through pre-testing.

The fourth critical component is the linkage between behavioral constructs and the assessment center constructs established through matrix mapping. This is commonly referred to as a dimension-by-exercise matrix. Next, an assessment center must include simulation exercises where there are multiple opportunities to observe relevant behaviors. “An assessment technique designed to elicit behaviors representative of the targeted behavioral constructs and within a context consistent with the focal job” is referred to as a simulation exercise (Guidelines, 2015, p. 1249). These include in-box exercises, leaderless group discussions, case study analyses, presentations, role-plays, and fact-finding exercises among others (Guidelines). There is evidence in research that skills transfer after training when simulations are used (Gopher, Weil, & Bareket, 1994). The format can vary among the use of media, such as video, audio, computers, telephones, and the internet to face-to-face interaction to traditional paper and pencil formats (Guidelines). Whichever format is chosen should ultimately match up with how the information would be delivered in the actual job environment to make it as effective and realistic as possible.

Assessors, or sometimes referred to as raters, are the sixth requirement of an assessment center (Guidelines, 2015). It all depends on the workings of the assessment center as some have assessors on site watching exercises while others record each exercise for assessors to view at their own leisure. Howard (1997) refers to using recorded simulations as taking the “center” out of assessment centers. Lepard, Edgemon, and Burns (1990) found evidence that videotaped behaviors are comparable to live observations. Using videotapes typically results in lower levels of stress, fatigue, and difficulty among assessors because of the added benefit of being able to rewind as needed

(Howard, 1997). According to Joiner (2002), videotaping participants does not increase the accuracy of ratings among assessors. On the negative side, there is no way to go back and provide clarity if a participant speaks unclearly or there are technical difficulties (Joiner).

Regardless, without someone to observe and evaluate each assessee, assessment centers simply could not function. If possible, it is best to strive for diverse assessors in demographics, such as age, race, sex, and ethnicity as well as experience. High-level managers might have a different outlook than a psychologist would. Higher assessment center validities have been shown to be present when psychologists rather than managers within the organization are used as assessors (Gaugler, Rosenthal, & Bentson, 1987). In addition, Gaugler et al. (1987) found that the length of training for assessors did not impact the validity of the assessment center.

Multiple sets of eyes are always preferred over one, but the actual number of assessors can vary on multiple circumstances. This can all depend on the purpose of the assessment center, the experience and amount of training among the assessors, the types of exercises implemented, behavioral constructs to be evaluated, and the type of data integration. Current supervisors are not recommended to be involved in any assessment center exercises where the results lead to selection or promotion to minimize potential bias.

The seventh requirement is thorough training of assessors, or raters. Assessors must know the purpose and goals of the assessment center and the behavioral constructs in which they are looking for when marking the appropriate ratings. In order for trained assessors to be effective, exercises must be recorded and scored which is the eighth

requirement. This can occur through note taking, behavioral observation scales, behavioral checklists, or behaviorally anchored rating scales. These observations are recorded after audio and video recordings are taken on each exercise.

Data integration is the ninth requirement. The purpose of the assessment center will determine how extensive a process this becomes. Weighting behaviors based on how critical they are to the job or providing exercise specific performance feedback are two examples. Making sure that scores that come out of the integration process are reliable is the most important part of this process, regardless of exactly which integration method is used.

Finally, standardization is the tenth essential element of assessment centers. Having a standardized way of operating the assessment center will allow for each assessee to experience the same opportunities.

Several decades ago, Cambell, in 1971, and Goldstein, in 1980, pointed out the lack of empirical studies on simulation methods including case studies, role playing, and leaderless group discussions. The following studies have expanded the literature since then and have looked at the benefits of using simulation methods in academics as the assessment center in this study is currently doing.

Assessor characteristics and ratings. Over the years, research has shown that individual differences among assessors may be predictably related to assessment center ratings (Bartles & Doverspike, 1997). Though little research exists on how assessor characteristics relate to assessment center rating, Zedeck (1986) believes that differences in background factors, such as age, sex, and race, might affect the validity of the process.

Binning, Adorno, and Williams (1995) found that assessor gender makes a difference in assessment center ratings, but the effects tended to be quite small. They also found somewhat limited evidence of a three-way interaction between assessor gender, assessee race and gender on behavior checklist ratings. When assessors were white, females were rated lower than males. However, male assessors rated women higher than males and female assessors rated men higher than women when assessees were black.

In their study examining the relationship between assessment center performance ratings and age of assessees, Clapham and Fulford (1997) found significant negative correlations between age and ratings in assessment centers, even after controlling for education, years of service, and gender. Their t-tests showed that assessees aged 40 and over received significantly lower ratings than assessees younger than the age of 40. These findings strongly suggest the existence of age bias in assessment center ratings.

Development of a simulated assessment center. Due to the complexity of serving as an assessment center assessor, or rater, a person in this position needs thorough training and an understanding of assessment center essentials. The purpose of Lievens' (1999) study was to develop a video-based simulation of an assessment center to be used as stimulus material in training and research. Around the time of Lieven's publication, vignettes had been used in training programs to classify and evaluate the skills of assessors. When used, vignettes lack the liveliness and realness of candidates and evaluation is often neglected following training (Spsychalski, Quinoes, Gaugler, & Pohley (1997). Lievens hypothesized that video-based assessment center simulation would be useful to train assessors in observing and rating candidates as well as evaluating

assessors' rating proficiency. Feedback is important in assessors knowing that their ratings correspond to expert ratings.

Lievens (1999) gave three requirements for simulations to be useful as stimulus material. First, the assessment center simulation should be representative of the typical assessor task and context to increase the external validity. Next, the assessment center simulation should be developed according to the true score paradigm, meaning the true performance levels should be known of videotaped candidates. This should increase internal validity. Finally, the assessors should be able to complete the simulation without fatigue. Similar to methods of Borman and Hallam (1991), the intent was to make the rating process more stimulus-based than memory-based to increase accuracy.

In developing the simulated assessment center, Lievens (1999) developed scripts depicting the behavior of four candidates in three exercises among three dimensions involving problem analysis and problem-solving, interpersonal sensitivity, and planning and organizing. Assessors were used to identify behaviors that would cause them to judge a participant as high or low in a variety of categories. True scores were identified to indicate the level of participant performance where a five means that the participant performed well, three means that a participant performed moderately, and a one that means the participants performed poorly on the dimensions gathered from a pool of critical incidents. The authors found that the expert scores highly correlated with the intended true scores ($r = .93$) and indicated that videotaped performance reflected the intended scores.

The finished video used in this simulated assessment center had four parts. The introduction showed four candidates applying for a district sales manager position and

detailed information about the position requirements. Assessors were then presented relevant information about the assessment center dimensions, exercises that participants would complete, and a five-point rating scale. Three performance dimensions, analysis and problem-solving, interpersonal sensitivity, and planning and organizing, were identified as the top dimensions in terms of importance. Assessors were told that they would evaluate each candidate in three exercises independently and then would join as a group and discuss their ratings collectively.

The second part of the video showed the process of a participant delivering a sales presentation lasting approximately six minutes. Next, the video showed the process of a participant in a role-playing exercise lasting approximately five minutes where the participant had to find the reasons for complaints of an employee and provide solutions to the problem. The last part of the video showed the process of four participants in a business meeting lasting approximately 14 minutes where participants gathered to discuss the division of next year's budget in a fictional organization.

This simulated assessment center was piloted on 28 self-nominated industrial psychology students who were offered an optional personnel selection course and 16 managers who had subscribed to attend a three-day personnel assessment program. Lievens (1999) expected managers to have more accurate ratings compared to student ratings because of their experience in rating subordinates. Results are as followed. A *t*-test showed significant differences in differential accuracy between the group of students and managers for rating the presentation, $t(42) = 3.08, p < .01$, role play $t(41) = 3.01, p < .01$, and discussion, $t(39) = 2.70, p < .05$. The authors believed that because of the experience in rating subordinates, managers' ratings were expected to be more accurate

compared to student ratings. This study was successful in its aim at developing a video-based assessment center simulation for use as stimulus material in research and training for assessors.

Assessment centers versus classroom evaluation. According to Bartles, Bommer, and Rubin (2000), several factors are leading the movement toward skill-based learning among business schools throughout the United States. These factors include students' inability to apply their classroom knowledge to real-life business situations, the American Assembly of Collegiate Schools of Business placing an increased emphasis on assessing educational outcomes, and employers' interest in hiring candidates with good interpersonal skills. Research has suggested that traditional methods, such as multiple choice exams, short answer responses, and essay exams are not able to capture what business students need to know in order to be prepared for a job upon graduation (Bartles et al., 2000). Assessment centers offer a higher fidelity method of assessing students than the traditional methods and offer feedback in the areas of strengths, weaknesses, and recommendations for professional development (Riggio, Aguirre, Mayes, Belloi, & Kubiak, 1997). Up until Bartles et al. (2000) study, not much research had been conducted involving the relationships between traditional indicators of academic performance and assessment center performance in the measurement of managerial skills.

Grade point average is one of the most common academic representations among students. Roth, BeVier, Switzer, and Schippmann (1996) found that GPA correlates with job performance with corrected r 's in the .30 range. However, Bartles et al. (2000) counter argue that GPA is not necessarily a measure of intelligence but rather an indicator of motivation, opportunity, interest, and persistence. Intelligence has been found to

predict school grades, $r = .50$ (Neisser, Booddoo, Bouchard, Boykin, Brody, Ceci, Halpern, Loehlin, Perloff, Sternberg, & Urbina, 1996). Assessment centers go beyond memorization and the recollection of information, as exercises often require the ability to show demonstrations of skills. Bartles et al. (2000) argue that assessment centers “offer a measurement tool that captures all stages of the learning process and can account for true managerial skill learning beyond simple knowledge acquisition” (p. 199). This would indicate that students who do not perform well in assessment centers, but do perform well on traditional classroom methods, may not have fully learned the managerial skills necessary to be fully prepared for the workplace.

As part of their organizational behavior course requirement, 347 undergraduate students from a large Midwestern university participated in a managerial assessment center where they assumed the role of department manager within a computer company. They completed a 150-minute assessment consisting of two 20 minute leaderless group discussion meetings concerning budget and selection, gave a three-minute speech on his or her vision of the organization, and worked on an in-basket exercise consisting of scheduling, organizing, and correspondence. To measure each student's performance, each exercise was recorded, and trained raters who had been through a two-day training session were used to assess the students' performance. Oral communication, teamwork, future orientation and time management were the dimensions of performance that were measured using behavior checklists adapted from Reilly, Henry, & Smither's (1990) study.

Grades and intelligence were assessed as follows. Grade point averages were obtained through self-report on a demographic questionnaire following the end of the

assessment center exercises. Students were assigned to groups to work on proposing solutions to real-life business world problems which concluded in a presentation of the group's recommendations. Lectures also took place once a week for discussion among 20-25 students. Attendance, participation, and small writing assessments made up the grade from the discussion sections. The 12 minute, 50 question Wonderlic Personnel Test from 1992 was used to measure intelligence and was administered at the completion of the assessment center exercises.

The results indicated that GPA was significantly related to overall assessment center scores ($r(337) = .23, p < .01$) and overall assessment scores correlated with other grading criteria. As suggested above, results showed that students performing better in the assessment center also scored higher on the multiple-choice exams ($r(334) = .24, p < .01$) and also received higher grades in the discussion section ($r(344) = .13, p < .05$). There was no relationship between assessment center performance and group project grades ($r(344) = .07, ns$). The authors state that group performance may not accurately reflect individual performance. Students who scored higher on the cognitive ability test also tended to receive higher assessment center scores as cognitive ability was significantly correlated with overall assessment center performance ($r(344) = .24, p < .01$). In conclusion, the authors suggest that traditional outcome measurement "is a useful string point, but by no means is a complete indicator of managerial skill learning" and that assessment centers go beyond traditional assessments in providing a higher level assessment of skill acquisition" (Bartles et al., 2000, p. 201).

A growing concern among universities is making sure that undergraduate students are able to demonstrate career readiness among the completion of their degree. In

particular, business students are supposedly being prepared to enter the workforce and should be qualified for entry-level careers in areas such as finance, accounting, and management among others (Riggio, Mayes, & Schleicher, 2003). In 1988, a review by Porter and McKibbin was published finding that business schools were teaching knowledge and work-relevant business skills, students coming out of these programs were still not fully prepared.

Riggio et al. (2003) state that “relying solely on pencil-and-paper tests of business content knowledge is simply not sufficient” (p. 69). Other college majors are taught the knowledge and skill required for their chosen occupation. Nursing students often learn with simulators before treating real patients. Education majors work as student teachers to create their own lesson plans and work in classrooms alongside teachers before graduating. Other majors, such as psychology, learn theoretical knowledge and work-related skills such as research procedures and written and oral communication skills.

Riggio et al. (2003) made the purpose of their study to show that assessment centers, although commonly used for selection among managers, could be used to determine student learning and work-readiness among business students. Riggio et al. (2003) state that around the publication time of their study the use of assessment centers in educational practices was just in their early stages.

Over 700 students in their first semester of their junior year in the California State University Fullerton School of Business went through approximately five hours of traditional paper and pencil measures combined with four performance-based assessment center exercises. A computer based entry-level in-basket test was used to measure the students' decision-making skills, ability to synthesize information, and scheduling,

meeting planning abilities and delegation abilities. Students were also faced with an ethical dilemma to test whether or not the student would recognize and question it. The second task involved a mock hiring interview in which the purpose was to test the students' communication skills, presentation style, and employability. Riggio et al. (2003) state that employability was to be used as a general measure of work readiness. Next, the students prepared a brief oral presentation which further assessed communication skills. Finally, leadership potential and the ability to work in a group setting were assessed through a leaderless group discussion.

In their discussion of the study, the authors stated that their results were very encouraging. Though they did not directly assess the content validity of their method, they said that they had good reason to believe that their exercises captured the management skills that would categorize a student as job ready. A weakness demonstrated in the assessment center exercises was a good indication that the coursework should be modified. Contrary to what one would expect, they found that students who visited the internship center were less knowledgeable than those who had not visited. In addition, they found that students with jobs where there was higher-level interaction with data showed less business knowledge compared to students whose work experience involved working more with people or objects. Written communication was said to be a function of GPA and was found negatively correlated to age and English as a second language. Work experience accounted for the most leadership potential. The number of jobs, rather than the types of jobs, had the strongest effect among students. A two-year post-graduation follow-up study showed that the students who had performed better in the assessment center exercises were somewhat more successful in their early

careers post-graduation. Among the five exercises, leadership correlated positively with supervisor ratings ($r = .41, p < .05$). Supervisor ratings of overall performance were also positively correlated to the assessment center leadership exercise ($r = .38, p < .05$) showing the convergent and predictive validity of leaderless group discussion dimensions. In a survey conducted at the end of the assessment, more than 90% of the students rated the assessment center practices as a valuable learning experience.

Assessment centers performance as early prediction of career success.

Research had already proven that a student-based assessment center could be effectively used in a business school setting (Riggio, Aquirre, Mayes, Belloli, & Kubiak, 1997), so Waldman and Korbar (2004) went a little deeper to see if student assessment centers performance could predict early career success among undergraduate business students. Waldman and Korbar evaluated the criterion-related validity of a student based assessment center going beyond the measures of grade point average and personality.

The authors stated that they recognized grade point average reflects general cognitive ability and motivation but used it as a learning outcome proxy of subject matter mastery in their study. Grade point average was a part of this study as past research has shown interesting and useful findings. Cohen (1984), Bretz (1989), and Roth, BeVier, Switzer, and Schippman (1996) found positive relationships between adult career success and grade point average. In particular, Bretz found in both business jobs and teaching jobs that grade point average was predictive of career success. He also found significant results in that grade point average predicted starting salary and job satisfaction among business students. Also in the business field, several studies have found that undergraduate grade point average was significantly correlated with performance

appraisals among accountants (Colarelli, Dean, & Konstans, 1987; Day & Silverman, 1989; Lavigna, 1992). In addition, Colarelli et al. found that promotability was significantly correlated with undergraduate grade point average.

Personality was also controlled for due to shown links between personality and career success, such as Judge et al. (1999). Of the Big Five traits, conscientiousness, extraversion, and emotional instability are believed to show the most relevance to career success.

Waldman and Korbar (2004) stated that they were aware that measures of assessment center performance can arguably be measured in grade point average, problem-solving and decision making to name just two. In their defense, the authors note that grade point average is more reflective of discipline in learning content as opposed to the problem-solving skills that managers would face and interpersonal as well as written and oral communication found within the workplace. Because of this argument, the authors hypothesized that assessment center performance would explain additional variances in early career success beyond what was explained by conscientiousness, extraversion, emotional instability, and grade point average.

Participants in Waldman and Korbar's (2004) study were drawn from 137 undergraduate students enrolled in business programs at a public Southwestern university in the United States participating in a one-day series of assessment center exercises. Students were given the option of participating in the assessment center or writing a paper for their course. An overwhelming majority, about 90% of the students, chose to forgo writing the paper. To aid in the student's scheduling, the assessment center was scheduled on nine Saturdays in the fall of 1998, the fall of 1999, and the spring of 2000.

The one-day time frame was similar to Riggio et al.'s (1997) protocol. Students were enticed to perform at their best as they were told that 10% of their course grade would come from displaying cooperative behaviors through the assessment center process.

Exercises consisted of an in-basket simulation, leaderless group discussion, and case analysis. Participants in the fall of 1998 had an additional interview simulation, and participants in the fall of 1999 and the spring of 2000 had an additional oral presentation. There were two scenarios randomly assigned to the in-basket. In the first scenario, the participants were put in the role of merchandise manager for a chain of toy stores who had been on vacation and had one hour to respond to seven memos and letters of various issues. The participants were put into the role of a customer service manager of a small cable television provider catering to apartment complexes. The manager had one hour to prioritize all tasks in their in-basket and deal with co-workers, their boss, subordinates, and customers. All responses for both scenarios were typed and emailed. There were no significant differences in terms of measurement criteria between the two scenarios.

The leaderless group discussion consisted of the participants being randomly divided into four or five person groups to work on one of three unstructured problems. The group roles included city planners, toy store merchandising managers, and the customer service manager. Participants were allowed ten minutes to read a one page summary of the problems and brainstorm potential solutions for issues before getting together in their groups. They then had 20 minutes to discuss and prepare for a five-minute presentation on their group's issue which was videotaped and later rated.

In the case analysis, participants analyzed one of two randomly assigned cases, each involving management and marketing issues from real life organizational situations

from the 1980s and 1990s. The case information was four pages long demonstrating poor decisions and strategies for the participants to make recommendations to in 50 minutes.

As previously mentioned, the interview simulation and the oral presentation were additional exercises that varied on the semester of assessment center participation. For the interview simulation, a 20 to 30 minute recorded one-on-one structured interview was used to ask participants questions dealing with various issues such as work ethic, teamwork, and preferences. The trained interviewer was probing for behavioral specifics. For the oral presentation, participants had 20 minutes to prepare for a five-minute videotaped presentation on a topic relevant to their major within their business program.

Three outcomes were assessed by Waldman and Korbar (2004) through the assessment center exercises. First, the in-basket and case analysis exercise were used to show how the participant “understand[s] and appreciate[s] the diverse nature of people who live together in an increasingly global business environment” (Waldman & Korbar, 2004, p. 157). Next, the in-basket, case analysis, and interpersonal exercises were used to show how the participant “develop[s] the cognitive processes and dispositions necessary to think critically, analyze problems in context, and make sound decisions” (Waldman & Korbar, 2004, p. 157). Lastly, the in-basket, leaderless group discussion, and the case analysis exercises were used to show how the participant “gather[s] and utilize[s] information to enhance knowledge, and use communication skills to convey meaning effectively” (Waldman & Korbar, 2004, p. 157).

Paper-and-pencil measures were used for assessing personality variables. Each of the Big Five factors was measured with ten items developed by Goldberg (1999) and asked the respondents to use a Likert scale to describe how accurately the trait described

him or herself. Items were then coded where higher scores more accurately represented the participants. According to Waldman and Korbar (2004), the resulting alpha reliabilities were .88 for conscientiousness, .87 for extraversion and emotional instability, .85 for agreeableness, and .86 for openness to experience. Data were recorded for other control variables. Because McDaniel, Schmidt, and Hunter (1988) found work experience is predictive of performance criteria across a variety of settings and criteria, Waldman and Korbar (2004) controlled for work experience. Among participants, the average level of work experience was 7.37, $SD = 4.79$ and was inclusive of part-time work. Grade point average was obtained from the university's records from the past two years of the participants' enrollment. The average grade point average was 3.35, $SD = .44$.

A follow-up survey conducted in February of 2001 and 2002 was used to measure aspects of early career success and progress. This time allowed for at least six months to pass post-graduation for participants to find or continue employment, but the average amount of time between graduation and return of the two-page surveys through the mail was 15.66 months. Based on the work of Judge et al. (1999), Waldman and Korbar (2004) asked respondents about aspects of their job and work life with a special interest in intrinsic satisfaction. The respondents were also asked to indicate the number of promotions they received since graduating. An additional question asked about gross annual salary at the time of graduation compared to the respondents' current salary.

The results of their study provided criterion-related validations for using assessment centers in the academic setting. Waldman and Korbar (2004) found that work experience, personality, grade point average, and assessment center measures are somewhat independent of each other. This means that they "are tapping into different

constructs” (Waldman & Korbar, 2004, p. 161). In addition, they found that work experience at the time of the assessment center was the only significantly career success outcome correlated with current salary at the time of the follow-up survey ($r = .26, p < .05$). Number of promotions was found to be significantly correlated with conscientiousness ($r = .25, p < .05$), extraversion ($r = .31, p < .05$), and emotional stability ($r = .22, p < .10$). Personality variables were not significantly correlated with job satisfaction. Of the Big Five, conscientiousness was the only trait significantly correlated with current salary ($r = .41, p < .01$). Grade point average was significantly correlated with current salary ($r = .32, p < .01$), but it was not significantly correlated with any of the assessment center performance measures. The authors stated that “although assessment center exercise scores tend to be significantly correlated with the early career success outcomes, overall assessment center performance is most strongly related to these outcomes” (Waldman & Korbar, 2004, p. 161). They found assessment center performance was significantly correlated with subsequent job satisfaction ($r = .35, p < .01$); number of promotions ($r = .48, p < .01$); and current salary ($r = .39, p < .01$).

Acting

Tips from the acting world. According to Feinglass (2000), “trainers can learn a lot from the acting world about projecting an image, staying focused on a role, and communicating with maximum impact (Feinglass, 2000, p. 20). Feinglass (2000) made the comparison of good trainers with good actors in that both must be able to capture and hold the attention of the audience, no matter how small or how large that audience might be.

Some of the skills suggested by Feinglass (2000) include relaxing, listening, speaking, caring for your "instrument," and preparation for the role. Relaxing is said to be one of the most important parts of acting such that "as much as 75% of accomplishing the desired results on stage (and in life) depend on relaxing before and during a performance" (Feinglass, 2000, p. 20).

Tension can interfere with all five senses, emotions, and creativity and can be a natural enemy of anyone in a public speaking setting. Some tips to relaxing are as simple as yawning to release tension in the throat, muscles around the mouth, and the diaphragm. Other suggestions include the tense and release method where one starts at one end of the body and slowly tightens his or her muscles for a few seconds then releases, moving his or her way through the body and relaxing all the muscles at once. This can be repeated once or twice for the maximum benefit. Lastly, focusing is crucial to a good performance as it is not recommended to rush into any situation where full concentration is demanded. An actor should prepare him or herself for the performance psychologically as should a trainer focus on objectives and goals before delivering information.

Listening is said to be an easy way to spot poor actors according to Feinglass (2000). An actor can come off as artificial on stage when he or she is waiting for the other person to finish a sentence so he or she can speak again. Occasional eye contact, facial expressions, and nodding can show another person that he or she is being listened to.

Feinglass (2000) gives the tip of spending 30 minutes every day devoted to site reading aloud. Actors can benefit from reading literature such as poetry or novels while

strengthening speech and vocabulary. In addition, one must care for his or her own “instrument” or oneself as referred to in the acting world. It is important to get enough rest, exercise, eat healthy meals, and stay hydrated. Another tip from Feinglass (2000) is avoiding stressful situations before any situation where one desires to perform at his or her best. If possible, it is recommended avoiding people and situations that can make one tense, such as meetings involving conflict. Going back to Feinglass’ main point of staying relaxed, it is important not undo any relaxation.

Finally, one should prepare for a training session as an actor would prepare for a role. Going over in advance the key concepts, goals, and objectives in as much detail as possible will help deliver an effective performance. According to Feinglass (2000), “part of being an effective trainer is playing a role” (Feinglass, 2000, p. 21).

Acting methods and techniques. There are six major acting techniques, known as methods, in which actors study in determining which one or combination of ones work best for him or herself. According to Silano (2015), Konstantin Stanislavsky, a Russian actor, director, and mentor was the first person to propose the idea there was a “step by step, calculated process to the art of acting” and “living truthfully in an imaginary circumstance” (Silano, 2015, p. 1).

The Stanislavsky System. This system revolved around the script, specifically breaking down the script to fully understand the character as emotional qualities emerged through the process. Stanislavsky’s first step was to identify the character’s overall goal known as the super-objective. Next, he would identify any obstacles that can get in the way of his character achieving his goal and identifying the necessary tools or methods to overcome those obstacles. Lastly, Stanislavsky would define actions for each of his lines.

When he taught this method, he asked students to recreate emotional reactions from past experiences in their current role. Sometimes this method was effective. Other times, actors would experience emotional breakdowns in recalling heavy past emotions.

The Chekhov Technique. Though Mikhail Chekhov was considered to be one of Stanislavsky's greatest pupils, his acting approach greatly differed and is somewhat difficult to explain according to Silano (2015). Chekhov's technique revolves around the use of imagination, and he believed that all movement and motivation for movement should begin in one of three centers. The pelvis is referred to as the will center. The middle of the chest is referred to as the heart center. Lastly, the head is referred to as the knowledge center. These centers are used to develop the character at different emotional states where each center was associated with a different image envisioned by the actor. Silano states that "the goal is to choose an image that you can associate with the quality you are trying to portray and let it resonate within you until that quality becomes innate" (Silano, 2015, p. 2). Chekhov also believed that qualities of movement should be applied to every move made by the actor and worked particularly with movements of molding, floating, flying, and radiating. Yet another aspect of his method involved the use of physiological gestures and the idea that there are archetypical gestures inside every human that express six statements: I want, I need, I feel, I yield, I stand my ground, and I reject. He believed that those six statements could be found within any action. Silano states that he found Chekhov's method as an amazing experience once one can get fully used to it.

The Lee Strasberg Method. Lee Strasberg's method was adapted from the Stanislavsky System and served as a way to help actors show real thought and emotions

in imaginary circumstances. In other words, any emotion shown from the actor is real emotion rather than just the illusion of an emotion through sense memory and emotional memory training. Sense memory is when one is reminded of a particular feeling when he or she experiences something through one of the senses. Silano (2015) gives the example of the smell of a mother's perfume being associated with love and safety. If the actor needs to appear in a sense of being loved and safe, the smell of perfume would trigger that association. Through various exercises that strengthen sense memory, method actors are said to then use the sense memory to remember and recreate strong emotions from those particular sense memories or what is referred to as emotional memory. Relaxation is very important in this method as any tension built up must be released before the actor can perform at his or her best.

Like the Chekhov method, the Strasberg method can also bring emotional release for which one must be ready. It is said that this method is taxing on the mind, but this method is very rewarding for the actor. Actors such as Heath Ledger in *The Dark Knight* used this method in his role as *The Joker* as well as Daniel Day-Lewis in his role in the movie *Lincoln*.

The Meisner Technique. Stanford Meisner's technique stresses the reality of doing where emotion is brought to the surface through action. Putting one's all into each action is the simplest way of summing up this technique. Silano (2015) gives the example of perfectly sewing a piece of clothing while giving full attention to each and every detail of that task. Instead of waiting for one's next line, the actor must set up the scene for the audience giving detail to each step along the way. Listening and responding truthfully are also said to fall under the category of doing as it does not have to be a physical act.

The Stella Adler Technique. Stella Adler also studied under Stanislavsky but also has a method of her own. Unlike Stanislavsky's concept where actors needed to relive past experiences to connect to their character, she relied on imagination to fully believe in the circumstances of the scene down to the last detail. She believed that in order to truthfully portray a given character, one must have a deep analytical understanding of the script and be able to allow the audience to see the world through his or her eyes. Adler believed in the concept that bigger is better, especially making voices and bodies as strong as possible.

The Uta Hagen Method. Uta Hagen's approach focused on specialized exercises to hone in on the tools in which she felt every great actor must possess, including tools pertaining to behavior in any given circumstance. Some of those behaviors included the waiting behavior and the mirroring behavior. She was also known for focusing on the moment before, where one considered how the behavior before the moment of the scene would affect the start of the scene. Hagen used Stanislavsky's breaking down the script approach and also applied the "as if" technique where actors perform a scene as if they can relate to it. If the actor has not experienced what he or she is trying to act out, he or she can imagine what that experience would be like and deliver emotions in the same way emotions were felt in a more relatable situation.

The Suzuki Method. While the above seven methods are traditional acting methods and techniques, Suzuki is an alternative acting technique. This Japanese movement technique involves endurance and strength training as some exercises are a workout on the lower body. This method helps actors ground themselves with their bodies and their characters. Instead of showing emotions through facial expressions,

Suzuki takes that away from the actor, though some teachers have been said to allow expression through the eyes. Silano (2015) states that the Suzuki form “is rigid, and the actor’s knees are constantly slightly bent, rooting his body to the floor [where] the actor is forced to express himself fully within the constraints of the form” (Silano, 2015, p. 6).

The Alexander Technique. Another alternative acting technique is The Alexander Technique which focuses on regaining one’s innate movement patterns that tensions build up within the body has caused one to lose. This technique helps relieve tensions and break habits such as walking with a limp or having a slight slouch in one’s posture and return to a natural movement pattern.

The Linklater Technique. Kristin Linklater developed the Linklater Technique which is another alternative acting technique focusing on tension release. “This technique works with building your vocal abilities through this release and specifically releasing tension in areas that would affect the voice” (Silano, 2015, p. 7). Not only can actors benefit from the Linklater Technique, but singers, public speakers, and anyone whose voice is a major part of his or her job can find use from this acting technique. Linklater believed that when people had tension, conviction and expression in what one is trying to communicate gets lost. She noticed in her classes that actors would use a “put on voice” instead of using his or her natural speaking voice when performing. Physical and meditative exercises are used to release tension in the diaphragm, face, jaw, throat, tongue, and other areas throughout the body.

The Study

An evaluation of the effectiveness of the university’s business school assessment center revealed that there was a need for actor training. A needs assessment was the first

step in this study. Using the Actor Opinion Survey, the current actors communicated what additional training and information they felt would help them perform better. In addition, they were asked what they believed made a good actor working in this assessment center. Also, experienced raters also identified what areas actors need the most improvement in by completion of the Rater Opinion Survey.

Based on this data, pre-test evaluations were collected to assess the actors' fall semester performance. Their performance was assessed by the experienced raters. A training program was developed and implemented to improve the actors' performance prior to the start of the spring semester. Finally, the experienced raters assessed the actors' spring semester performance after the training with post-test evaluations to see if the training was effective. Effective training results would allow the university's assessment center to require all future actors to undergo the training before working with students participants in the assessment center. Thus, two hypotheses and one research question emerge:

Hypothesis 1. Actor training will improve actor performance.

Hypothesis 2. Trainees will learn critical aspects of the actor role by the end of training.

Research Question 1. What were the trainees' reactions to training?

CHAPTER TWO

Method

Participants

Participants in this study consisted of three actors who served as confederates in a Midwestern university's student assessment center (AC) who completed the actor training program. The AC's secretary also took part in the training. There were two Caucasian female actors aged 24 (one year of AC acting experience prior to the start of the fall semester) and 28 (two months of AC acting experience prior to the start of the fall semester) and one 60 year old Caucasian male actor (10 years of AC acting experience prior to the fall semester). The secretary was a 39-year-old Caucasian female. The AC has more than three actors, but these three were currently the main active actors in the videotaped exercises who could be compared between the fall and spring semesters.

This study also involved six raters who evaluated the actors' performances. There were three Caucasian male raters aged 26, 35, and 43 and three Caucasian female raters aged 34, 38, and approximately 31. These raters all had a minimum of three years of rating experience and had been assigned by the AC to the particular AC exercises to rate. The AC also has additional raters, but not all are responsible for rating videotaped exercises and, therefore, rate the written exercises.

Measures

Acting Performance. This variable was measured using the Actor Evaluation Survey (see Appendix A) that I created. It is an online eight-item survey with a five-point Likert scale that was created through SurveyMonkey and hyperlinked at the end of the online rating instrument. Actors were aware that any videos recorded in the AC may be

used for training purposes and additional consent to have raters evaluate their performance was obtained in the informed consent documentation process that I will discuss in the Procedures section. It took raters an average of 2.3 minutes to complete this survey in the fall semester and 1.1 minutes to complete it in the spring. It was important to keep this survey short and quick to complete for the raters as they are paid for their work evaluating student participants. It would not have been fair to them to have an additional time-consuming task added to their role if their compensation would remain the same. Raters typically complete 10 files per week, so survey completion only added about 10 to 20 minutes of additional work.

To ensure the validity of this instrument, I first surveyed all main and backup AC actors (seven responses), all AC raters (seven responses), and the director of the AC. The actors completed the online Actor Opinion Survey consisting of seven open-ended questions and demographic information that was created through SurveyMonkey and emailed out. It took an average of 15.1 minutes to complete. Raters completed the Rater Opinion Survey consisting of five open-ended questions and demographic information that was also created through SurveyMonkey and emailed out. This survey took an average of 12.6 minutes to complete. The AC director filled out both surveys (see Appendix B).

Examining the qualitative responses on these initial surveys was the first step to determine what needed the most emphasis in the creation of the training program. Trends in responses were noted which indicated that duplicate responses would be important to cover in the training. Surveying the actors allowed me to see what they thought was needed in their training to better themselves for their role. In addition, these surveys

allowed the director of the AC to express a strong interest in showing the actors the role of the raters and how the two roles intertwine.

In addition, surveying the raters allowed me to see another perspective of what the actors needed to work on as well as seeing what they had already been doing successfully that should be encouraged to continue. The responses received from the Actor Opinion Survey and the Rater Opinion Survey were used to create the Actor Evaluation Survey. Coefficient alpha was computed for the eight items on this instrument, pre-test and post-test, to examine its internal consistency based on the 276 acting performances in the simulated exercises. This resulted in a Cronbach's Alpha of .77. The results indicated that removing the item in relation to the extent in which the actor went off script would raise the Cronbach's Alpha to .83. Therefore, this item was removed to increase internal consistency and was later looked at in an exploratory analysis.

Participant reaction to training. The actors, as well as the AC secretary, completed a participant reaction survey at the end of their training so the AC could learn how to improve the training content and procedures for future use. This variable was measured by the Actor Training Feedback Survey (see Appendix C) that was created by me. The survey creation was based on of the first of Kirkpatrick's Four Levels of Evaluation (participant reactions) and some other general feedback surveys posted online. This survey consists of seven questions using a five-point Likert scale to measure the level of agreement with the questions ranging from strongly disagree to strongly agree. An additional two short response questions asked what the actors thought were the biggest strengths and weaknesses about the training and what changes they would make to it. The actors completed this survey immediately after completing the actor training

program, so their opinions were fresh in their minds. A hyperlink following the end of the training program PowerPoint led the actors to the online survey created through SurveyMonkey. It took an average of 8.72 minutes to complete.

Coefficient alpha was computed for the seven quantitative items on this instrument which resulted in a Cronbach's Alpha of .86. One of the items, "I feel like there were topics missing from the training," was reverse scored. If this item had been removed, Cronbach's Alpha would have been .97. The qualitative responses were examined for possible areas for improvement and trends were noted.

Test of obtained knowledge. Based upon key points that an actor should know about his or her role, the actors also completed the Training Completion Quiz (see Appendix D). This online quiz consisted of eight multiple choice, one fill-in the blank, and one short answer questions. The quiz was also taken following the training program and took an average of 13.5 minutes to complete. The multiple choice and fill-in the blank questions were chosen from key points in which the AC director identified were critical to the role of an AC actor. The short answer question also utilized such information, but was chosen to allow the actors to show critical thinking skills where they could apply the information from training to their role. Responses from the last qualitative question were looked over to ensure that the actors completed them properly. The average score on this ten-item test was 9.25 out of ten.

One of the main goals in the actor training was to allow the actors to see the role of the raters and get an understanding of the rating instrument that raters use to evaluate student participants. Therefore, the actors were asked to select two items from the rating instrument that student participants get evaluated on and describe how they, as actors, can

ensure that the behaviors required of these items are able to be displayed by the student participants.

Procedure

Twelve competencies were identified by the AC as being highly sought by employers and which are also important in academic success. These competencies include critical thinking, written communication, interpersonal communication, presentation, teamwork, conflict management, customer relations, leadership, delegation, coaching, ethics, and financial impact analysis. To assess the students on these 12 competencies, the AC consists of the following six exercises: case analysis, client meeting, employee meeting, project meeting, board meeting, and in-basket.

Approximately 100 undergraduate business students from the university undergo these exercises each semester. Actors are employed in two of the six exercises: the client meeting and the project meeting. During the client meeting, the actor is in the role of an upset client and the student participant is in a supervisory role responsible for handling the situation. In the project meeting, the actor meets with a student participant who is the head of a project. The actor pitches an idea for a fundraiser that is the complete opposite than what the company had done in previous years as explained in background information provided to the student participant to read over before the role-play begins. For example, the actor might plan a fun-fair with a carnival theme when the previous year's fundraiser was a black tie event.

The AC performances involving actors are videotaped and electronically accessible for rater access through Canvas. The non-videotaped exercises are photocopied and uploaded for electronic viewing and rating. Then, the raters evaluate the

students using an online instrument in which raters have been trained to use in a self-driven online training course prior to the start of the fall semester.

In addition to rating the student's performance, this study required the raters to also rate each actor's performance in addition to their role in rating student participants. The Actor Evaluation Survey was kept concise, so it would not be too much of an additional burden on the raters to complete after each rating instrument submission.

During the fall semester, pre-test data was collected on the actors' performances prior to participation in the actor training program which was held in January before the spring AC operations began.

Topics in training. There were several topics that the training program covered. First, there were the basic guidelines and a step-by-step breakdown of how to properly record, upload, and save videos. This included making sure that the student identification sheet was held in front of the camera prior to recording and that the camera was positioned to see the participant's hands and face to capture all aspects of the rating process. Short clips were also used from previous role-plays to give examples. These clips included how to properly position the camera, the need to repeat cues if the participants do not respond to them, and ending a role-play when actors are near their maximum time.

Next, the role of the actor was explained along with basic information that every actor should know to be successful. This section included basic information, such as how early to arrive at the AC, where to park, and an outline for a typical day at the AC to provide as much information as possible before the actors would begin their roles for the semester. In addition, actors were told how many AC sessions typically take place during

a semester, how many students will typically be in each group, how many groups to expect per day, and what the last tasks of the day would be to ensure everything gets put back in the proper place.

Then, the role of the raters was explained. This was the biggest addition of information to the training program in which the actors had not had much previous exposure. The actors' ability to perform their roles is critically linked to the success of the raters' ability to accurately evaluate student performance. If the actors are not doing their jobs effectively, the raters will not be able to give accurate ratings and the students participating in the AC will not get beneficial feedback to enhance their potential career success. In a sense, I wanted to essentially cross train the actors to become familiar with the job of the raters to potentially increase AC effectiveness (Nembhard, 2014).

Obviously, the actors would never be stepping into their position to actually rate student participant files, rather becoming familiar with the rating instrument was critical to my training program. Therefore, the rating instrument was broken down into several PowerPoint slides so the actors could see exactly what the raters were looking for from participants. Each item on the rating instrument, both the question and the response options, were presented one at a time to make this process less overwhelming.

Familiarization with the rating instrument was also intended to allow the actors to think critically about their roles and what they would do to make sure they elicited appropriate responses from student participants. For the actor, this might be as simple as making sure that the camera is positioned to allow the raters to see the student participant's hands and face when looking for hand gestures and note taking. Or, this

might include asking the student participant what he or she plans to do about a certain situation for the rater to evaluate the possible options and conclusion for the situation.

In addition to explaining the roles of the actors and raters, the training included some brief acting tips which were mentioned in my literature review. Only one of the actors at the AC had experience in traditional acting methods (outside of role-playing performed in AC), so this seemed appropriate to include. This portion of training emphasized the need to relax before a role, listen to others when they are speaking, perfect their speaking skills, and prepare for their role through script memorization and preparation (Feinglass, 2000).

Various methods such as The Stanislavsky System and the Linklater Technique were described so actors could choose which methods that they thought would benefit them the most. The Linklater Technique, in particular, seemed to be most relevant to the actors and to anyone whose job involves speaking. This technique allows a person to find his or her natural voice and to avoid a put on voice in a role. To make method acting more current, as some of these techniques were created decades ago, I included some examples of famous actors who are known for using method acting. One example was Heath Ledger's use of method acting in his role as the Joker in *The Dark Knight*.

Lastly, the director of the AC led a group discussion using five videos that I selected from previous semesters. The first video ran short of the desired time and actors were asked to use the actor script to see whether all cues were presented to the students. Cues are bold items in the actor script which must be read verbatim to allow equal opportunity for every student to respond to them. The purpose of the cues is directly linked to eliciting responses from the student participants who are evaluated based upon

their response. Actors were also asked how they would lengthen the roleplay. Then, I wanted the actors to put themselves in the role of the student to think about whether the actor gave the student the proper amount of information to respond to everything that the raters need to accurately rate. Applying the information that was learned in training, in addition to the lecture format, produced a combination of learning methods. Because there is no one method of instruction that is universally most effective, this format was appropriate for multiple types of learning preferences (Hall & Freda, 1982).

The second video led to a discussion about whether the actor was convincing in the role as an upset client. I wanted the actors to see one example of an actor as an upset client to get a feel for how far they should go with this character in terms of arguing or raising their voices. Essentially, how much was too much to make this situation as realistic as possible for the student participants? They also discussed the strengths of the actor's performance and what could have been improved upon.

The third video was used to ask the actors what their biggest concern was with the role-play. Then, they were to imagine how they would go about improving this role-play if they were to recreate it. The main point of this video was that the actor sounded as if he was reading directly from the script, which was something that I wanted to get the actors to stray away from. It did not sound natural, and I wanted the actors to hear an example of that. This goes back to one of the items that the actors were being evaluated on in the Actor Evaluation Survey. Raters were evaluating actors to see if the actors seemed to be reading directly from the script and making the exercise seem less conversation-like. This also relates back to the importance of being familiar enough with the acting script to avoid being reliant on it, which was mentioned in the training. Mastery of the actor script

was something that got mentioned more than once, by both the actors and the raters, in the initial opinion surveys as being one characteristic of an effective actor.

The fourth video was used to ask the actors about the positives and negatives of the role-play. Again, I asked them to refer to the script to see if the cues were properly presented which is crucial in their role as actors. Then relating back to another one of the measures in the Actor Evaluation Survey, the actors were to decide if the actor in the role-play spoke too little or too much. This was to give them an idea of what was appropriate in their future role-plays. Actors are expected to be able to improvise when needed which occasionally means having to add additional information beyond the actor script.

Finally, the fifth video was used to prepare actors for quiet student participants. There are noticeable differences in the personalities of student participants and those really drive how much or how little additional information the actor needs to provide. An actor could be assigned a role-play with a college freshman right out of high school who does not have much work experience, especially in the role of a supervisor. Alternatively, the complete opposite could occur. An actor could get assigned a role-play with an eloquently speaking business professional with several years in his or her field who is finishing up a business degree that was started several years ago.

The actors were asked for their opinion on the actor's performance and if there was anything else that could have been added in addition to the script to create more conversation. Again, this goes back to the Actor Evaluation Survey directly relating to the item identifying to what extent the actor went off script and restating the importance in the ability to improvise at a moment's notice. The student participants are supposed to

be driving the role-plays in the position of a supervisor. When an actor encounters a quiet student, I wanted them to be prepared to know how much they should try to draw from the participant to get better responses for the raters to evaluate. To conclude, the actors were asked if they thought the raters would be able to fully rate this role-play based on what they learned about the rating instrument. Again, having the actors look at the video through the eyes of a rater allowed them to really see the connection between the roles and see how important their job is to the AC.

IRB and data protection. Before any data was collected, approval from the Emporia State University Institutional Review Board was granted (see appendix E). This included an Informed Consent Form for the actors to allow me to collect data on their acting performances and obtain testing scores and training feedback (see appendix F).

Once an expedited review was complete and the study was approved, survey administration began. Because this was a long-distance study, all surveys were conducted online through SurveyMonkey for easy access in benefit to both me and the participants taking these surveys. Online surveys were really the only option to use for the raters in evaluating the actors because the rating position is a virtual role. Because there was a large number of actor performances (172 in the fall and 100 in the spring), online surveys also saved time and eliminated delivering the surveys to me. With this many total surveys, the possibility exists that one or more could have gotten lost and affected the overall results.

While I could have given the director of the AC the training quiz and feedback survey to administer on-site after training, conducting it digitally allowed for instant results and access to the data (Howard, 1997). In addition, this eliminated the transfer of

data from the AC to me in which results had the possibility of being seen by people outside of this study.

I created a SurveyMonkey account through a personal email address, rather than using my school email account, to better protect the safety and possible connection of this data back to myself or to the university's assessment center in this study. The password to the SurveyMonkey account was not stored on any computer nor was it shared with anyone. Survey data was regularly monitored through my personal computer on an unshared network to ensure there were no problems for the raters taking the Actor Evaluation Survey. To further protect the data, all questions were worded where it would not be possible to identify the actor being evaluated by name, but rather by a series of numbers to identify each file. Such information was securely sent to me by the assessment center to later match up in the coding process. After all data had been coded, all names were removed from my collection of data and given the assigned number from the coding process. In addition, last names were never listed anywhere in my data nor was the name of the AC in this study.

Conducting this study through technology required sending my final training program in the form of a PowerPoint to the assessment center via a secure, confidential file using a program called Slashtmp. Files get uploaded in this program and a link is sent to the intended receiver. A password is also required to gain access to files. This was an important step once the short clips and videos were added to the training program to ensure the confidentiality of the student participants in those videos.

Lastly, all names of the actors were changed in this study. A simple method of choosing short names with just four to five letters and alphabetizing those from 'a' to 'f'

for the raters and 'a' to 'c' for the actors was used. The director of the AC was given the necessary information to match up the actors and raters to use for future AC purposes.

CHAPTER THREE

Results

Main Hypotheses

My first hypothesis was that actor training would improve actor performance. The results of a one-tailed t-test indicate that actor performance improved from 4.2 on a five-point scale to 4.6 from the fall to the spring semester ($t(270) = 5.84, p < .001$). Thus, I found that the training was effective.

To explore what aspects of training the actors most improved on, I examined their improvement in eight areas. As depicted in Table 1, the mean increased in all but one area (frequency of observed distractions). The difference in the mean for that item decreased by only 0.02, indicating no significant change. The greatest increases were found in items relating to the extent of going off of the actor script, the frequency of reading directly from the script, and the actors fully doing their job.

In my first hypothesis, I explored trainees using their training back on the job. For my second hypothesis, I expected to the trainees to have learned important aspects of the role of an actor by the end of the training in January. Therefore, I tested them with a 10 item quiz after training. One participant scored 100% and the other three scored 90%, each missing a different question. See Table 6. So, they appeared to have been taking in the information during training.

In addition to my two hypotheses, I also had a research question, “What were the trainees’ reactions to training?” To answer this question, the trainees answered seven quantitative questions. The results can be found in Table 2. Except for the fifth item,

“were there were missing topics from the training?” Three of the four trainees gave the training high marks. The fourth trainee was more neutral in his or her appraisal.

In addition to seven quantitative questions, I also asked the trainees two open-ended questions to gather additional thoughts from the actors. Their responses are as follows.

What were the biggest strengths and weaknesses of the training?

- “It was too long.”
- “Strength-explaining the rater side of the role-plays; weakness-none known.”
- “Seeing how the participants are actually rated is very helpful. It showcases the importance of each cue and letting the student respond. I also think the videos are very helpful. The computer stuff and saving the videos, I think, would be better practiced in person.”
- “I liked reviewing and discussing the videos and how we can better ourselves as actors so that the students can have the best feedback as possible.

Weaknesses of the training-it is hard to manage how we across the board as actors deliver the same performance as different actors of other genders and ages so students get the best feedback as possible. I also think it’s hard for us as actors to get the students to initiate responses when they are supposed to be driving the role-play.”

What changes (if any) would you make in the training that you believe would make it stronger? Please explain your response of “strongly disagree” or “disagree” (if applicable) on any of the previous questions.

- “None.”

- “To add some videos of the role plays that are being done properly.”
- "I think that it would be helpful to use really great examples of participant and actor interactions so that we can see something to improve towards, not just examples of things we need to change."
- “More discussion of making our responses uniform across the board.”

Exploratory Results

In addition to exploring my main hypotheses and research question, I performed a three-way ANOVA (actor by rater by semester) on Actor Performance. There was an actor main effect ($F(2, 256) = 8.18, p < .001$). One of the actors performed worse than the other two (I will call that actor Chad). However, there was also a rater main effect ($F(5, 236) = 20.07, p < .001$). One of the six raters was more strict compared to the others (I will call that rater Frank). There was a significant semester by rater interaction ($F(1, 756) = 17.75, p < .001$) and a significant actor by rater interaction ($F(3, 256) = 6.86, p < .001$). Only two raters rated actors during the spring, compared to six in the fall semester. As can be seen in Table 3, Chad’s acting scores got worse from fall to spring, while the other two actors improved. However, in the spring, Chad was rated only by Frank, who seems to be a severe rater. So, I cannot say whether Chad actually got worse or simply was unlucky to have Frank as his only rater in the spring. The ANOVA Table appears in Table 4.

As mentioned in the Method section, the on-script item was removed from the Actor Performance measure because it detracted from internal consistency. Because the ability to improvise is highly important to the role of the actors, this item was used to identify the extent to which the actor could go off script, or if it was necessary, depending

on the circumstances of each situation. I examined how the five responses lined up with Acting Performance. These are depicted in Table 5. As you can see, of the 272 total performances, the raters thought that a majority of the time (47%) the actors knew when it was appropriate to go off of the script and still managed his or her time well in doing so. Combining those results with the actors not going off script because there was no need to (approximately 14 %), thus indicated that the actors were adequately performing approximately 61% of the time between the two semesters.

The actors have a goal of 10 minutes to get in and out of a room for each role-play, which includes setting up the camera. It is important for the actors to not exceed eight minutes of role-playing, so the Assessment Center can give equal opportunity for every student in each session. The raters found that only 19 times, or nearly 7% of the total performances, did the actors spend too much time going off script and giving additional details.

Table 1

Ratings of the Actors' Performances in the Fall and Spring

	Semester	N	M	SD
Length of time speaking **	Fall	172	4.06	.91
	Spring	100	4.54	.77
Frequency of reading directly from the script **	Fall	172	3.93	.76
	Spring	100	4.50	.89
Frequency of allowing student to respond without unnecessary interruption *	Fall	172	4.23	.64
	Spring	100	4.46	.98
Frequency of observed distractions	Fall	172	4.74	.60
	Spring	100	4.72	.78
Consistency in responses **	Fall	172	4.05	.67
	Spring	100	4.56	.74
Presenting prompts accurately **	Fall	172	4.26	.58
	Spring	100	4.64	.66
Fully did job **	Fall	172	4.13	.95
	Spring	100	4.67	.68
Extent of going off script **	Fall	172	3.33	1.58
	Spring	100	4.12	1.22

Note:

* $p < .05$ ** $p < .001$

Table 2

Participants' Reactions to the Training

Reactions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Training was valuable	0%	0%	25%	0%	75%
Presentation of material	0%	0%	25%	0%	75%
Well organized	0%	0%	0%	25%	75%
Relevant topics	0%	0%	0%	50%	50%
Missing topics	0%	75%	0%	25%	0%
Better prepared as an actor	0%	0%	0%	25%	75%
Understand role	0%	0%	25%	0%	75%

Table 3

Actor Performance by Actor, Rater, and Semester

Actor	Rater	N* (Fall)	N* (Spring)	M (Fall)	SD (Fall)	M (Spring)	SD (Spring)
Anne	Allen	83	65	4.21	.286	4.84	.244
	Frank	7	5	3.20	.718	3.31	.618
Betty	Allen	6	15	4.09	.369	4.85	.262
	Becky	33	-----	4.24	.534	-----	-----
	Chloe	3	-----	4.48	.541	-----	-----
	Drew	4	-----	4.54	.180	-----	-----
	Emily	3	-----	4.38	.082	-----	-----
	Frank	9	9	4.16	.660	3.87	.527
	Chad	Allen	5	-----	4.14	.175	-----
Chad	Chloe	10	-----	4.41	.469	-----	-----
	Emily	9	-----	4.27	.338	-----	-----
	Frank	0	6	-----	-----	3.26	.654

Note:

N* indicates the number of actor performances rated in the semester by the raters;

M indicates the mean score of acting performance per semester

Table 4

ANOVA Table for Actor Performance by Actor, Rater, and Semester

Source	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	46.14 ^a	15	3.07	21.02	.000
Intercept	1,600.53	1	1600.53	10,938.09	.000
Semester	1.50	1	1.50	10.26	.002
Actor	2.39	2	1.19	8.18	.000
Rater	14.68	5	2.93	20.07	.000
Semester * Actor	.166	1	.16	1.14	.287
Semester * Rater	2.59	1	2.59	17.75	.000
Actor * Rater	3.01	3	1.00	6.86	.000
Semester * Actor * Rater	.21	1	.21	1.47	.227
Error	37.46	256	.14		
Total	5,208.91	272			
Corrected Total	83.60	271			

a. R Squared= .552 (Adjusted R Squared = .526)

Table 5

How Staying on Script Is Related to Actor Performance

	Actor Performance		
	N	M	SD
Never-the actor stayed on script because there was no need to go off script	38	4.38	.383
Never-the actor stayed on script though he or she could have gone off script creating more response from the student	33	4.00	.573
Occasionally-the actor went off script on one or more occasions, but could have gone further off script	53	4.22	.624
Always-the actor knew when it was appropriate to go off script, but spent too much time in doing so	19	3.68	.627
Always-the actor knew when it was appropriate to go off script and managed his or her time well in doing so	129	4.56	.405
Total	272	4.34	.555

Table 6

Participants' Scores on Training Completion Quiz

		Frequency	Percent
Question 1	Correct	3	75%
	Incorrect	1	25%
		Frequency	Percent
Question 2	Correct	3	75%
	Incorrect	1	25%
		Frequency	Percent
Question 3	Correct	4	100%
	Incorrect	0	0%
		Frequency	Percent
Question 4	Correct	4	100%
	Incorrect	0	0%
		Frequency	Percent
Question 5	Correct	4	100%
	Incorrect	0	0%
		Frequency	Percent
Question 6	Correct	4	100%
	Incorrect	0	0%
		Frequency	Percent
Question 7	Correct	4	100%
	Incorrect	0	0%

		Frequency	Percent
Question 8	Correct	4	100%
	Incorrect	0	0%
		Frequency	Percent
Question 9	Correct	3	75%
	Incorrect	1	25%
		Frequency	Percent
Question 10	Correct	4	100%
	Incorrect	0	0%

CHAPTER FOUR

Discussion

Actor Training

This study was an applied research investigation in the area of training in a Midwest university's student-based AC. As the definition of an AC states, an AC relies on multiple inputs and standardized evaluation of behavior (Guidelines, 2015). The purpose of this study was to create a standardized training program for actors in the AC as the competency of their role greatly impacts all aspects of the AC. The AC already had an online, self-paced training program to adequately train the raters, but the training and information in the onboarding process for the actors was in need of some work to allow the AC to operate more efficiently (Guidelines).

The director of the AC in this study became aware that the actors were not where she felt that they needed to be in order to be fully competent in the actor role. She expressed some suggested areas of improvement at the beginning of this process. To develop relevant training for the actors, the first step was a needs assessment to validate those areas of improvement and search for additional aspects that needed to be part of the actor training (Cekada, 2010; Wexley, 1984).

According to Wexley (1984) conducting a needs assessment allows an organization to see where the organization should place an emphasis on training, what the content of the training should be in terms of what needs to be learned for employees to be effective, and who within the organization needs the training. A needs assessment "serves as the foundation or determining learning objectives, designing training programs, and evaluating the training delivered" (Cekada, 2010, p. 33). Of the three traditional types of

needs assessments, task analysis was the focus of this study. I had already identified where the training was needed reflecting organizational analysis and who needed the training reflecting person analysis (Cekada, 2010).

Actors, raters, and the director of the assessment center helped me determine what was needed in my training program. This was the planning phase, the first step in the development of my training program (Cascio & Aguinis, 2011). In the initial surveys, actors responded to eight open-ended exploratory questions while the raters responded to six. To utilize the AC director's experiences and perspective, she responded to both surveys to give me more information beyond our telephone conversations. We both reviewed the results and, from there, I developed (a) course content for the training program and (b) valid assessments of the training effectiveness.

My next step was to develop training for the actors. I had to consider what training technique would be most effective considering my limitations. A common mistake that trainers make is selecting the training method or technique before defining what is to be learned (Cascio & Aguinis, 2011). I made sure to gather as much information as possible on what the actors needed to learn before choosing my training method.

First off, it was important for me to consider what level of interaction was needed between trainees and instructor in this form of distance training. The director of the AC served as the instructor for my training. Though "there is no single best way to deliver training" (Salas & Cannon-Bowers, 2001, p. 481), reliance on cost-effective, content-valid, easy-to-use, engaging, and technology-based methods was chosen (Bretz & Thompsett, 1992). While role-playing might have been the best type of training method

due to the opportunity for personal involvement and practical experience, pragmatic issues got in the way. These included the distance of the AC and cost, to both me and to the AC.

Though their opinion is somewhat dated now, Read and Kleiner stated in 1996 that the top ten training methods, in order from highest to lowest, were videotapes, lectures, one-on-one instruction, role-plays, games/simulation, case studies, slides, computer-based training, audio tapes, and films.

The format of the training program that was chosen still has its advantages. First off, it is easy to repeat. The format of a PowerPoint can be viewed from anywhere, should the AC want to virtually train their actors in the future. Trainees can also go back and review desired parts of the training on their own time. Essentially, this format allows for the training to be facilitated by the AC Director or can be given as a self-study.

Second, the use of clips and videos as demonstrations of desired behaviors, (knowledge of behavior) are, like mentioned above, more cost effective. This eliminates the need for all actors to be able to attend training on the same day as well as eliminating the possibility of an absent role-player and having to make up training sessions. While videos are not effective to the participants if they are used in a passive manner, my method of using discussion questions targeting specific behaviors is said to lead to active participation and feedback (Read & Kleiner, 1996). Studies such as Gopher et al. (1994) have shown that skills are more likely to transfer over to the job when simulations are used in training. In addition, there is also evidence that videotaped behaviors are comparable to live observations (Lepard et al., 1990).

In addition to the chosen method of training, the learning climate played a role in the training. As Baumgartel, Sullivan, and Dunn (1978) note, people in more favorable organizational climates are more likely to apply new knowledge. Having all of the actors be present for the training allowed for group discussion and an opportunity to learn from one another. All actors were there for the same purpose.

One could argue that having the training at the AC as opposed to being off-site also had an effect on the actors. Being in the environment where their acting performances will take place can allow for a more realistic look at the information being presented to them. Often times, companies will conduct training outside of the organization and use trainers who are not employed by the organization. In this training session, the director of the AC was the trainer utilizing the training program that I put together. This is greatly beneficial because she is a subject matter expert in all aspects of the AC (Cascio & Aguinis, 2011).

Finally, the part of this study that the Results section focuses on is training evaluation. Kirkpatrick (1998) lists four levels of training evaluation. The lowest level is participant reactions. Three of the four participants in the training strongly agreed that the training was valuable, the presentation of the material was appropriate, training was well organized, allowed them to feel better prepared for their role as an actor, and gave them a better understanding of their role. Half of the participants agreed that the topics were relevant to their role while the other half strongly agreed with this statement. Three of the four participants disagreed that there were topics missing from the training while one participant agreed with the statement. Thus, disagreeing indicates that the training covered what it was supposed to.

I also asked two open-ended questions to gather more information on why the participants chose the ratings that they did and what they felt could be improved. Some important things that I learned were that the actors benefited from watching clips and full videos of previous performances to identify strengths and weaknesses. It gave the actors a visual image to refer to instead of simply giving them instructions. They also saw the benefit of knowing the role of raters in what they look for from the student participants. This allowed them to see how important it is to properly present cues to the students and allow time for them to respond. The actors also indicated that they would like to see examples of exceptional performance so they know what to strive for in the future.

While we know that reaction is only one part of training that should be measured (Brown, 2005), it should not be the determining factor of whether training was successful. Next in training evaluation is learning. The actors scored well on their test at the end of training. None of the participants missed more than one question and each missed a different item. At the beginning of the training session, an outline indicated that a quiz and a feedback survey would conclude training. This might have alerted the actors that they needed to pay attention influencing these scores, similar to the Hawthorne effect (Fernald, Coombs, DeAlleaume, West, & Parnes, 2012).

As Cascio and Cguinis (2011) point out, a trainees' motivation plays a major role in learning and training outcomes. Because I did not measure training motivation before the training was conducted, there is no way of knowing if the actors with less experienced were more or less motivated to attend training and take in the information that was being presented to them. The actors' motivation to learn and attend training has an impactful

effect on willingness to apply the newly acquired knowledge and skills on the job (Martocchio & Webster, 1992; Quinones, 1995, & Tannenbaum & Yukl, 1992).

As mentioned earlier, a major part of the training program was to show the rater side of the AC to the actors in an understanding to see the importance of the connection between the two roles. In a sense, I wanted to cross-train the actors to familiarize them with the role of the rater in addition to their role as an actor. In the qualitative feedback portion of the Actor Training Feedback Survey, comments indicated that one of the strengths of the training was seeing exactly what the raters are looking for in student participants. In support of my concept of cross-training in this study, research has indicated that cross-training has an impact on the following areas: quality improvement, worker motivation, well-being, and enhancement of problem-solving skills (Nembhard, 2014).

Kirkpatrick's third step in training evaluation is behavior. In this study, I looked for behavior to transfer back to the job. To measure this, I had the raters rate the actors before and after training. Results of this study indicate that the actor training program was successful in that the overall actors' ratings improved post-training. In the eyes of the raters, the actors' spring performances were better than their previous fall performances. Unfortunately, only two of the actors' individual performance ratings increased, while one decreased. As previously stated, it is unknown as to whether this was due to only having a more severe rater or if this actor's performance truly declined after training.

It is interesting to note that the improvement in acting performance came from the two younger female actors while the declining acting performance came from the older male actor with much more experience at the AC. The younger actors also gave higher

feedback on the Actor Training Feedback Survey compared to the other actor. These findings might indicate that actors who expressed a higher level of enjoyment for the training program were more successful in demonstrating a change in performance (Quinones, 1995). Noting that the two female actors were rated higher than the one male actor adds to the varying research results as to whether gender is a potential moderator of the relationship between age and training success (Gully & Chen, 2010).

Another factor that could be impacting this study is the methods that were used in training. There is a strong stereotype that younger people are much more comfortable with technology (Riggs, 2017). Though the training was conducted at the AC under the facilitation of the director, there were several components that utilized technology. The Actor Training Completion Quiz and the Actor Training Feedback Quiz were administered online. If the stereotype is true in this situation, the younger actors were likely much more comfortable using a computer to complete these tasks. My findings were similar to those of Kubeck et al. (1996) where they also found that older participants performed poorer than younger participants.

The desire for a formalized training program was due to the fact that the actors with the longest AC experience had been shown to need the most improvement. This leads us to the question of whether people are really less trainable as they age. My findings were consistent with those of Clapham and Fulford (1997) in that assesees who were over 40 years old received lower ratings compared to younger assesees.

I followed the four identified characteristics to make training effective (HR Trend Book, 2008). The first step, as mentioned, was getting employees at all levels involved. Getting feedback beyond the director of the AC was an important part of this process.

Second, training was linked to the end results to ensure it was worth the time and effort. The goal of getting actor performance to improve was always the intent of conducting training. Additionally, improving actor performance would hopefully, down the line, improve rater performance. Next, I allowed for feedback to be gathered. I conducted a survey to see what the actors thought of the training to identify strengths and weaknesses. In combination of all of these steps, I utilized the resources available to invest in training.

Rater Training

While my task was to develop a training module to improve the actors' performances, my analysis of the data revealed that one of the raters was a much more severe rater than the others. Because this severe rater was rating the actors' performances, I cannot know for sure if he or she is also a severe rater when judging the students' AC performances. But if this person does rate students consistently lower, having that person as your rater would be an unfair disadvantage for the student being evaluated in the AC. Thus, my study revealed another training issue that the AC director may need to address.

The first step would be to go back and analyze the student performance data by rater to see if there are consistent differences in the raters scores. If the director concludes that this rater rates students more severely than others, then it might be to the AC director's benefit to rethink rater training. Perhaps she needs a bigger emphasis on frame of reference training in addition to the discussion and identification of rater error. Currently, the raters are self-trained prior to the fall semester using PowerPoints and graded quizzes due to the fact that it is a virtual position and all tasks are performed through online viewing and submission. Once training is complete, the AC director sets

up a phone call to discuss a practice video where the raters see how their ratings match up to the director's ratings.

Taking all of this into consideration, the current training program was a good step stone to build off on for the AC. The qualitative feedback can be considered as additions to the training for next semester should the AC choose to continue to use it.

Limitations

As with any research study, limitations are guaranteed to be present. Because this was an applied research study, I had less control over the process than I would in an experimental design. This one-group pretest-posttest study lacked a control group for experimentation (See Figure 1). "It can be seen that pretest observations (O_1) are recorded on a single group of persons, who later receive a treatment (X), after which posttest observations are made (O_2)" (Cook & Campbell, 1979, p. 99).

My goal was to interfere with normal AC operations as little as possible as I wanted to conduct this study in the typical AC environment. Too much change would have likely altered both the role of the actors and raters. I kept surveys brief to ensure a higher response rate and keep the amount of extra exerted efforts to a minimum.

I was not able to control which actors would be present for each session, nor did I choose which raters would be responsible for rating video-taped files instead of written files (which were not used in this study because no actors were involved). Raters are paid by the AC for each file that is submitted, so a schedule is put in place by the AC director and secretary on how to equally distribute files. Conveniently, all of the actors that were used in my study had approximately three years of rating experience. I see this as a

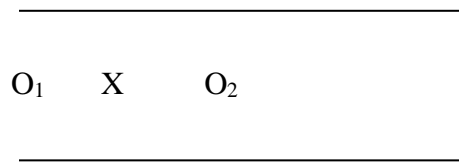


Figure 1. One-Group Pretest-Posttest Study

benefit because these raters have seen hundreds of actor performances over those three years and should have a good idea of what is expected of a good actor.

I did not want to place too much of a burden on the raters in adding the task of evaluating actor performance using the Actor Evaluation Survey in addition to already evaluating student participants. It would not have been fair to significantly increase their workload without increasing their pay. Looking at the times that it took from calculating the average time completing the Actor Evaluation Surveys, it seems that I was successful in not adding too much additional work to the raters' role. Typically raters will have 10 files to rate per week, so this equaled out to approximately 10 to 11 additional minutes by the spring semester that they took to complete their AC tasks for the week.

Another aspect of this process that was out of my control was the variability in student participants. Because the students only go through AC exercises once during their first year or two, then again during their last year or two, the same students were not present in both semesters. Thus, a longitudinal study would have had to be conducted to track such information. Even then, the students might not finish their degree at the same university.

As one can expect in any environment, there will always be some really outspoken people who might make it easier to lead the role-plays in this situation. Alternatively, they could speak too much and not allow the actors to present all cues in a timely manner. The opposite situation could arise as the actors encounter reserved students who do not say much and makes the actor alter the normal acting routine to ensure the raters get adequate information to rate.

In addition, there is a great deal of variability in the age and gender of participants. Having an older actor might be intimidating to a freshman right out of high school. Or, having a younger actor with an older participant might affect the way the participant responds to the actor. Training emphasized the importance of being able to adapt and improvise when needed as actors should be ready for any situation brought before them.

Though the actors were aware of a training program being designed in the fall semester, they were not officially told that they were being evaluated by the raters. The improvement in actor performance could certainly be due to the effectiveness of the training program. But, I cannot rule out the Hawthorne effect, where individuals modify aspects of their behavior when they know that they are being watched (Wickstrom & Bendix, 2000). Obviously, the actors know that they are being observed as the raters have to watch their videos. It is possible that the actors suspected that their performance would be evaluated after spending a couple of hours in training. Moreover, that the training took place in the spring semester rather than the fall at the start of the AC might have been an indication that a study was taking place.

The most obvious limitation to this study was the fact that it was conducted entirely through technology due to the AC being over 600 miles away in another state from my current residence. In the early stages of this study, several phone calls and emails were made to the AC director to gather information. Clear and constant communication was crucial to getting ideas relayed and executed. All surveys were also emailed out to raters and actors where there was no guarantee that they would be filled out and submitted.

Many typical threats to internal validity were overcome in this study, but it was still open to threats to external validity. Concerning internal validity, or inferences regarding cause-effect or causal relationships, I can rule out the threat of history. There were no observed effects due to events that took place between the pretest and posttest phase.

Maturation threat is a possibility in this study as the actors do gain experience from one semester to the next, but the course of two semesters does not seem to be overly impactful. Had this study been more longitudinal, going beyond one academic year, the threat of maturation could have a larger impact than the present study.

I can, without a doubt, rule out the testing effect and the instrumentation threat. The actors were not given a pre-training test of knowledge, so the information obtained through training was not able to be practiced before taking the quiz. Only the acting performances were evaluated and compared between semesters, and the exact instrument was used to collect the pretest and post-test data. Other threats to internal validity are more prominent in experimental studies as opposed to my applied study (Cook & Campbell, 1979). In addition, I did not have a control group with the limited number of actors available.

External validity refers to the extent to which results of a study are generalizable (Cascio, 2011). This study clearly does not have strong generalizability because it was created specifically for a particular assessment center, hence the applied research focus. I do not have proof that my results would not be beneficial to other student-based assessment centers, so I cannot rule this out. Obviously, the training itself would need to be crafted to fit the particular needs of a different assessment center. But, the basic

outline of the process: collecting pre-test data, implementing a training program utilizing a PowerPoint and video discussion, collecting feedback from participants, testing the participants' knowledge, and comparing post-test results is very duplicable.

Future Research

In the future, the AC used in this study might consider having more than one rater per student participant so that rater accuracy could also be assessed. Though this would increase the cost for the AC, just one semester or two could potentially lead to better quality of ratings for the student participants. An additional suggestion would be to get an industrial and organizational psychology student to rate the student files for internship credit and forgo getting paid, or find other volunteers to help with this if the cost would be an issue.

Ideally, it would be best to have a demographically diverse group of raters, as well as actors (Gaugler et al, 1987). But, the availability of resources is always a problem as with any educational institution. This particular AC struggles to find competent actors to fill this necessary role, so they are forced to work with whoever is available. One reason for the lack of actors is the timing in which the AC operates. It is difficult for full-time employees to serve as actors in the middle of the work day.

If needed, a rater mentorship program could be created to allow more experienced raters to help guide less experienced raters who seem to be struggling in an effort to enhance their rating knowledge and skills. Formal mentorship programs continue to gain popularity in organizations and are a growing topic in research. Results from Allen, Eby, and Lentz's (2006) study "indicated that perceived input into the mentoring process and

training perceived as high in quality were consistently related to the outcome variables” (p. 567).

To improve the current study, the same actors would need to be used in the same number of AC exercises and have the same raters be present for both semesters. Again, more than one rater could evaluate each actor to see if the error was coming from the actor or the rater.

It might also be worthwhile to track the age of the student participants to use in comparison to the actors’ ages. This would answer some questions about the relationship between different age groups and whether an age bias was present such as the case in Clapham and Fulford’s 1997 study. Though I looked at the age of the raters and the actors in the current study for significant relationships, I was not able to find significant results as the same raters were not used in both semesters for the videotaped exercises.

Tracking the age of the student participants in comparison to the age of the AC actors would be particularly interesting in the client meeting role-play. In this exercise, the student is the supervisor and the actor is an upset client. After a discussion about how an employee acted unacceptably in the eyes of the client, the client (the AC actor) reaches across the desk and grabs the employee file sitting in front of the supervisor (the student participant). The purpose of this is to get a response from the student participant about how it is unethical for the client to see an employee’s file. It would be interesting to see if the age of the actor made a difference in how the student participant responded to this action. Again, this would ultimately lead to additional tracking of information by the AC. But, the results could be used in comparison to other research to see how the use of varying demographics in AC exercises affects outcomes.

Race is another factor that could affect the results in examining the race of the student participants, the AC actors, and the AC raters. My study consisted of all Caucasian actors and raters, so not much could be done with the relationship of those two variables with the current AC roles. More variance in race and age could lead to altering findings.

Additionally, gender could also be examined to answer the following two questions. Do female raters tend to rate female actors lower/higher than they do males and vice versa? Also, do female raters rate female student participants lower/higher than they do males and vice versa? Though the effects were small, Binning, Adorno, and Williams (1995) found that assessor gender has an effect on AC ratings. Additional research would be needed to confirm or deny their finding which could be accomplished by going a different direction with my study.

Biases in gender would then need to be added to the rater training. Sometimes people do not even know that they are prone to a particular bias. In the onboarding process, a quick online test for various biases that could impact their judgment as a rater could be given by the AC.

Future studies might also investigate the relationship of assessor personality to leniency in assessment center ratings as Bartles and Doverspike did in 1997. Their results indicated that tender-minded, warm-hearted assessors were more likely to give elevated ratings. Similar results were found in agreeable personality characteristics in raters. Though the assessment center in this study trains raters on leniency errors, it might be worthwhile to assess the personality of raters in the onboarding process.

Conclusion

This study shows that the creation of a training program does not need to be expensive to be successful when available resources are readily utilized. Training is often avoided due to the cost and time it takes in order to successfully conduct it. I was able to use information that the AC already provided to actors, videos from previous semesters, and the rating instrument that already in use to create an adequate training program to solve a real-life problem for a student-based AC. The format of the training allows for new actors to the AC to be trained on-site or, if the AC chooses to do so, have that new actor work through each section at his or her own pace as the training program is available on Canvas. This study shows the need to get input at various levels in the early stages of making a change within an organization. I surveyed not only the director of the AC, but the actors who would be affected by the training and the raters who depend on the actors to adequately do their jobs. Finally, this study is a solid example of how research can successfully be conducted entirely through technology as this was a long distance study.

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Appendix A
Actor Evaluation Survey

1. Please enter your name (as the rater)

AND

The type of exercise and the student ID number for this file below your name.

(Example:

Jane Doe

CL_22703)

2. Do you recommend this file for training purposes? *Check one box*

Yes, *this file should be used as an example of great actor performance*

Yes, *this file should be used as an example of poor actor performance*

No, *I don't think this file would be beneficial for training purposes*

For questions 3-9, please respond by circling what you feel to be the appropriate response between 1 and 5

3. How appropriate was the length of time the actor spoke?

1	2	3	4	5
Very	Inappropriate	Slightly	Appropriate	Very
Appropriate		Inappropriate		Appropriate
<i>the actor spoke</i>		<i>the actor spoke</i>		<i>the actor knew</i>
<i><u>way</u> too much</i>		<i>a bit more</i>		<i>when to talk and</i>
		<i>than needed</i>		<i>and when to listen</i>

4. How often did it seem like the actor was reading directly from the script making the exercise seem less conversation-like?

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

5. How often did the actor allow for the student to respond without unnecessary interruption?

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

6. How often did you observe any distractions coming from the actor which made it difficult for you to hear and/or rate the student?

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

7. Did you notice consistency in the actor's responses?

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

8. Did the actor present the prompts appropriately?

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

9. To what extent do you agree that the actor fully did his or her job to allow you to effectively rate the student?

1	2	3	4	5
Never	Seldom	Sometimes	Often	Always

10. To what extent did the actor go off script when appropriate? *Check one box*

- Never-*the actor stayed on script because there was no need to go off script*
- Never-*the actor stayed on script though he or she could have gone off script creating more response from the student instead of moving right along*
- Occasionally-*the actor went off script on one or more occasions, but could have gone further off script to move the situation along naturally*
- Always-*the actor knew when it was appropriate to go off script, but spent too much time in doing so*
- Always-*the actor knew when it was appropriate to go off script and managed his or her time well in doing so*

Appendix B
Opinion Surveys

Rater Opinion Survey

1. Names will remain anonymous, but for research purposes, please enter your demographic information:
 - What is your title? (Rater or other assessment center staff position)
 - What is your gender?
 - What is your age?
 - What is your race?
 - How long have you worked at the assessment center?

2. As a rater, what actions or behaviors (if any) have you seen from actors that makes it difficult for the student participants to respond to questions or prompts?

3. As a rater, what actions or behaviors (if any) have you seen from the actors that makes it difficult for you to properly rate student participants?

4. Think back to the videos that you have rated in the past. In your personal opinion, what characteristic/qualities are necessary of a good actor working in the assessment center?

5. What are the top three to five areas that should be the focus in the creation of a new actor training program for the assessment center?

6. Feel free to leave any other comments that you think would be beneficial in creating a new actor training program.

Actor Opinion Survey

1. Names will remain anonymous, but for research purposes, please enter your demographic information:
 - What is your title? (Actor or other assessment center staff position)
 - What is your gender?
 - What is your age?
 - What is your race?
 - How long have you worked for the assessment center (in years/months)?
2. Describe in as much detail as possible how actors are currently trained at the assessment center.
3. What did you find to be least effective about the current actor training at the assessment center?
4. What did you find to be most ineffective about the current actor training at the assessment center?
5. In your personal opinion, what characteristics/qualities are necessary of a good actor working at this assessment center?
6. What information, if any, was lacking from the training you received?
7. What are the top three to five areas that should be the focus in the creation of a new actor training program for the assessment center?
8. Please feel free to share any additional information in regards to training at the assessment center.

Appendix C

Actor Training Feedback Survey

How strongly do you agree or disagree with the following statements?

1. I felt this training was a valuable experience.

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

2. I liked the presentation of the material being presented to me (PowerPoint outlining key information, video clips used as visual examples to make certain points, and full video examples with discussion).

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

3. The training was well organized.

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

4. I feel like the topics covered in the training were all relevant to my job as an actor.

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

5. I feel like there were topics missing from the training.

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

6. I feel like because of this training I can be a better actor for the assessment center and am better prepared.

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

7. Because of the training I received, I believe that I have a better understanding of the importance of my role in the assessment center.

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

8. What were the biggest strengths and weaknesses of the training?

9. What changes (if any) would you make in the training that you believe would make it stronger?

Appendix D
Training Completion Quiz

1. Which of the following times should be your goal of getting in and out of an office?
 - 10 minutes
 - 15 minutes
 - 20 minutes
 - 30 minutes

2. What is the correct format for entering an assignment name?
 - Exercise code, fact pattern, dash, date, dash, student ID number
 - Student ID number, dash, date, dash, exercise code, fact pattern
 - Date, dash, exercise code, fact pattern, dash, student ID number
 - Date, dash, fact pattern, exercise code, dash, student ID number

3. How many seconds should you hold the Student ID sheet in front of the camera in the role-play?
 - 2 seconds
 - 3 seconds
 - 5 seconds
 - 10 seconds

4. What is the maximum time a role-play should last?
 - 5 minutes
 - 8 minutes
 - 10 minutes
 - As long as it takes

5. In MOST instances, how many students are typically in each group and how often does a new group of students arrive? Select two answers.

- 3 students in each group
- 5 students in each group
- 10 students in each group
- 15 students in each group
- Arrive every 45 minutes
- Arrive every hour
- Arrive every hour and fifteen minutes
- Arrive every hour and a half

6. Fill in the blank with the correct response. We cannot have any group more than _____ minutes ahead of schedule.

- 30
- 35
- 40
- 45

7. How should the camera be positioned in the client meeting and project meeting role plays?

- To see the participant's head only
- To see the participant's head and shoulders
- To see the participant's face and hands
- To see the participant's entire body

8. Select all assessment center exercises that are video-taped.

- Project meeting
- Case analysis
- Client meeting
- Board meeting
- Employee meeting
- In-basket general
- In-basket specific

9. Select all statements that are true about presenting cues during role-play.

- All cues are not necessary to present if they do not come up naturally in the conversation
- Cues should be repeated if the participant does not respond to them
- It is alright to add additional information and details to the cues
- Information and details can be changed in the cues if necessary
- Cues should be presented one at a time
- There is no particular order the cues need to be presented in
- Cues are important to present because the raters are looking for how the participant responds to them

10. As stated in the actor training program, it is beneficial for you to be familiar with the rating instrument. Identify at least two specific items from either the project meeting rating instrument, the client meeting rating instrument, or one from each and what you can do as an actor to make sure the raters can properly evaluate these items.

Appendix E
IRB Approval

EMPORIA STATE UNIVERSITY

■ GRADUATE SCHOOL AND
DISTANCE EDUCATION

Research and Grants Center
Campus Box 4003
1 Kellogg Circle
Emporia, Kansas 66801-5415
620-341-5351
620-341-5909 fax
www.emporia.edu/research

November 7, 2016

Michelle Brown
Psychology
304 East 12th Avenue, Apartment 10
Emporia, KS 66801

Dear Ms. Brown:

Your application for approval to use human subjects has been reviewed. I am pleased to inform you that your application was approved and you may begin your research as outlined in your application materials. Please reference the protocol number below when corresponding about this research study.


Title:	Enhancing Actor Training to Increase Assessment Center Success
Protocol ID Number:	17034
Type of Review:	Expedited
Time Period:	October 2016 to August 2017

If it is necessary to conduct research with subjects past this expiration date, it will be necessary to submit a request for a time extension. If the time period is longer than one year, you must submit an annual update. If there are any modifications to the original approved protocol, such as changes in survey instruments, changes in procedures, or changes to possible risks to subjects, you must submit a request for approval for modifications. The above requests should be submitted on the form Request for Time Extension, Annual Update, or Modification to Research Protocol. This form is available at www.emporia.edu/research/irb.html.

Requests for extensions should be submitted at least 30 days before the expiration date. Annual updates should be submitted within 30 days after each 12-month period. Modifications should be submitted as soon as it becomes evident that changes have occurred or will need to be made.

On behalf of the Institutional Review Board, I wish you success with your research project. If I can help you in any way, do not hesitate to contact me.

Sincerely,


Dr. John Barnett
Chair, Institutional Review Board

pf

cc: George Yancey

APPENDIX F

Informed Consent

PARTICIPATION INFORMED CONSENT

My name is Michelle Brown and I am a graduate student in the Industrial/Organizational program at Emporia State University. I am working on my Master's thesis and would like to ask for your assistance by completing a short survey at the end of your actor training program. The survey will take approximately 5 to 10 minutes to complete. Participation is voluntary. If you chose not to participate, there will be no negative ramifications, but it is greatly encouraged. I am also asking for your permission to use the responses in the Actor Evaluation Survey completed by the raters at the end of each videotaped exercise that follow your performance should this apply to you.

Your participation and honest feedback in this research will help identify the strengths and weakness in the actor training program and help the assessment center run as effectively as possible. Your job as an actor is very important and the purpose of this study is to improve your performance and make you more comfortable in your role. If you would like to know the findings of this study, I would be more than happy to provide them to you at the email address listed below.

All results will be used solely for research purposes and will remain confidential. Though your name is identified so I can keep track of individual actor's results, your name will not appear in my study nor will anyone see the results from the surveys outside of me, the assessment center director, and my thesis chair. Statistical analysis coding schemes will be used to ensure your answers are kept anonymous and protected. If you have any questions or comments, please feel free to email me at the address listed below. Thank you for your help in this study.

(Signature)

(Printed Name)

Sincerely,

Michelle Brown
mbrown33@g.emporia.edu

THIS PROJECT HAS BEEN REVIEWED BY THE EMPORIA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD FOR TREATMENT OF HUMAN SUBJECTS.

I, Michelle Brown, hereby submit this thesis to Emporia State University as partial fulfillment of the requirements for an advanced degree. I agree that the Library of the University may make it available for use in accordance with its regulations governing materials of this type. I further agree that quoting, photocopying, or other reproduction of this document is allowed for private study, scholarship (including teaching) and research purposes of a nonprofit nature. No copying which involves potential financial gain will be allowed without written permission of the author.

Michelle Brown

Signature of Author

6/6/2017

Date

Enhancing Actor Training to
Increase Assessment Center Success

Title of Thesis

Signature of Graduate Office Staff Member

Date Received