

EMPLOYEE SELECTION AND WORK ENGAGEMENT: DO RECRUITMENT AND  
SELECTION PRACTICES INFLUENCE WORK ENGAGEMENT?

by

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B.A., Hampton University, 1996

M.S., Kansas State University, 2001

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Department of Psychology  
College of Arts and Sciences

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Manhattan, Kansas

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## Abstract

Work engagement has received increased attention by both practitioners and academicians. Researchers and practitioners have focused on the antecedents of employee engagement and the positive outcomes of an employee being engaged. This study served to expand the literature on antecedents and outcomes of work engagement to include human resources practices, such as Realistic Job Previews (RJP) and selection tests, as antecedents. A sample of 161 Information Technology helpdesk support representatives, who were grouped by receiving or not receiving an RJP and a selection test, were assessed on the Utrecht Work Engagement Scale (Schaufeli, Salanova, Gonzalez-Roma, and Bakker, 2002). Significant differences were found for individuals who recalled receiving an RJP on work engagement. Significant differences were not found for the selection test group on work engagement. Additional analyses were conducted to determine the predictability of engagement on individual (e.g., personal health and job satisfaction) and organizational outcomes (e.g., turnover intentions and performance). Overall, results suggest that human resources practices should be included in the work engagement model. Additional research directions and organizational implications were discussed.

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## Dedication

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## Introduction

As researchers continue to examine the causes and effects of engagement, there is an increasing level of interest in investigating and developing strategies to maximize engagement. Research investigating the methods for improving engagement has focused primarily on what the organization can do when the individual is employed (e.g., Schaufeli & Salanova, 2005). These strategies are reactive and focused on the post-hire experiences of employees. Very few approaches are geared toward pre-hire attempts at increasing engagement.

Engagement has been extensively linked to the organizational environment (Maslach, 2002; Schaufeli & Salanova, 2005). Strong relationships between engaged employees and positive effects have been identified (Harter, Schmidt, & Hayes, 2002). Additionally, the negative effects of employees not engaged in their jobs, is well documented in the literature (Crabtree, 2005; Schaufeli & Salanova).

Recent directions of research have focused on the models of the antecedents and consequences engagement (Schaufeli & Salanova, 2005). The primary focus has been on the measurement of engagement (e.g., Schaufeli, Bakker, & Salanova, 2004). Interest in engagement has increased over the last few years, resulting in varying perspectives on the conceptual model and the operational definition of employee engagement.

Although there are differences in the definition of engagement, the identified positive outcomes are similar in nature (e.g., Harter et al., 2002; Schaufeli et al., 2004). With the benefits firmly established, very few studies have been conducted to investigate methods for maximizing the likelihood of a candidate becoming engaged within the organization. There are few studies, if any, which investigate how employee selection practices can positively impact engagement and

work outcomes. This study examines methods for improving engagement and employee performance by investigating recruiting and selection practices. More specifically, does the use of realistic job previews and high fidelity role plays positively impact work engagement, job performance and intention to leave the job, and if they do, how?

### *Work Engagement*

Work engagement has received increased attention over time. Kahn (1990) used the term engagement to refer to how individuals include their “personal selves during work role performances” (p. 694). More recently Maslach (1998) defined engagement as the antithesis of job burnout, or the positive side of the same psychological coin. Engagement has since been defined and operationalized in several ways (Macey & Schneider, in press). However, the results obtained from the use of various measurement tools point in the same positive direction. In this section, the literature that documents the history, measurement, antecedents, and outcomes of work engagement will be summarized.

In one of the earliest mentions of the concept of an individual being engaged in work, Kahn (1990) proposed personal engagement as an expression of oneself in the work one does, physically, cognitively, and emotionally, when there is a perfect blend of the situation. Further Kahn theorized that the combination of the expression of an individual’s preferred self yields behaviors that increase the relationship of the individual to the role. Borrowing from similar concepts, Maslach (1998) proposed work engagement to be the antithesis of job burnout. Through the investigation of job burnout, Maslach presented the engagement of employees as the positive side of the job burnout phenomenon. More specifically, engagement was viewed as the converse of the results obtained on the Maslach Burnout Inventory (MBI-GS) (Maslach, Jackson, & Leiter 1996). The MBI-GS operationalized burnout as a combination of emotional exhaustion,

depersonalization, and the lack of self-efficacy or personal accomplishment. Maslach et al.'s perception of work engagement was that it would be the direct polar opposite of the three burnout dimensions. Therefore, engagement was characterized by high levels of energy, involvement, and a high level of personal accomplishment or self-efficacy (Maslach & Leiter, 1997).

In a study investigating the measurement of engagement and burnout, Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) followed a different approach from Maslach and colleagues. Schaufeli et al. concluded that although there are similarities between burnout and engagement, they are opposite constructs that should be measured using independent instruments. Schaufeli et al. shared a different view of what the third variable of engagement is as compared to Maslach and Leiter (1997). Schaufeli et al. believed that a high level of self-efficacy should not be part of the conceptualization of work engagement. Their belief, which was supported by their findings, is that the third variable should be absorption and not be considered the direct opposite of efficacy.

The definition utilized by Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) is that work engagement is “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002, p. 74). Additionally, Schaufeli and colleagues characterized engagement as an affective cognitive state that is persistent and not focused on any particular object, event, individual or behavior. Schaufeli et al. operationally defined work engagement as a display of vigor, dedication, and absorption in one's work.

Vigor is defined by high levels of energy, resilience, and the willingness to invest effort in one's work and display persistence when encountering difficulties. Dedication is characterized by a sense of significance, enthusiasm, inspiration, and pride. Absorption is characterized by

being deeply engrossed in one's work, where time passes quickly, and one has difficulty detaching oneself from work. These three scales are assessed using the Utrecht Work Engagement Scale (UWES) as developed by Schaufeli et al. (2002).

Although the approach for measuring engagement with the three-factor model presented above is unique to Schaufeli et al. (2002), the concepts presented in the definitions are shared by others. For example, Shirom (2004) investigated positive affect using a measure of vigor. Shirom defined vigor as a positive, work-related affective response to one's job and work environment. Vigor, as measured by the Shirom-Melamed Vigor Measure (SMVM), assesses three subscales, physical strength, emotional energy, and cognitive liveliness. The underlying concepts of Schaufeli's work engagement and Shirom's vigor are similar. Both Schaufeli's and Shirom's theoretical frameworks demonstrate a connection of the individual to the work that she or he performs.

Saks (2006) offers another conceptualization of engagement. In a study investigating the antecedents and consequences of engagement, Saks summarized employee engagement as a construct that consists of cognitive, emotional, and behavioral components that are linked to the individual's role performance. Saks further indicated that employee engagement is similar to other concepts (e.g., organizational commitment, organizational citizenship behavior, and job involvement), yet it is a distinct and separate factor. In Saks' investigation of employee engagement, two distinct scales were developed. One of the scales measured Job Engagement and the other measured Organization Engagement. Job engagement was characterized by immersing oneself into the job or losing track of time while performing the job; whereas, organizational engagement was characterized by an individual's involvement in the organization and feeling exhilarated to be a part of the organization.

Other researchers also had a different operational definition of engagement. Harter, Schmidt, and Hayes (2002) investigated the relationship between satisfaction, engagement and business unit outcomes using a 12-item scale of engagement. The concepts measured by the scale included employees' awareness of expectations, the support provided by supervisors and fellow coworkers, and whether employees' skills are utilized in a way that positively impacts the organization. Although Harter et al.'s concept of engagement is broader than that of Schaufeli et al. (2004), similar concepts are found within the dedication scale of the UWES (Schaufeli & Bakker, 2003).

While the approaches used by the various researchers for measuring work engagement are different, the general conceptualization of engagement is similar. Engagement is a blend of emotional, cognitive, and behavioral expressions that are displayed when the employee is matched within an organization that provides resources to meet their needs. Despite differences in the operational definitions of work engagement, the antecedents were viewed similarly. Below is a brief summary of the antecedents of work engagement.

### *Antecedents*

There are organizational and individual factors that lead to work engagement. Engagement as described above, occurs when an employee experiences the appropriate mix of workload, control, reward, sense of community, fairness and value congruence (Maslach, 1998). Maslach explained employees' perceptions of the organizational factors can lead to positive and negative outcomes. Engagement around workload is experienced when the employee's work is challenging enough, but is not overwhelming or unmanageable. Maslach also viewed control or the perception of choice, as an important factor for leading to engagement. Rewards and recognition were also identified as factors that lead to work engagement. The perceptions of



fairness and justice, and the meaningfulness of one's work were areas that would lead to positive fit between the employee and the organization. This positive fit was considered work engagement (Maslach, 2002).

Researchers, such as Schaufeli and Salanova (2005), have similar views on how work engagement develops. In a review of the work engagement literature, they theorized that engagement is an interrelationship between the availability of resources, belief in oneself, and positive work outcomes. Researchers such as Demerouti, Bakker, Janssen, and Schaufeli (2001) (as cited in Schaufeli & Salanova, 2005) and Salanova et al. (2003) found support for the relationship of work engagement and social support from coworkers, feedback from supervisors, performance feedback and job control. Parallels between work engagement and motivational theories have been drawn to explain the psychological processes. Work motivational theories, such as the Job Characteristics Model (Hackman & Oldman, 1980), explained the importance of how the availability of job resources could lead to a positive work experience. The positive work experience described in motivational theories is similar to what is now termed engagement. The more resources available to employees the more likely employees will feel engaged in their work and lead to increased performance. Salanova, Agut, and Peiro (2005) described work engagement as a motivational theory characterized by Schaufeli et al.'s three factors (i.e., vigor, dedication and absorption).

Saks (2006) also suggested a connection between motivational theories and work engagement. More specifically, Saks proposed the interplay between economic and socioemotional resources and employees is what leads to engagement. Saks highlighted the relationship between the employee and the organization as reciprocal and explained the relationship by referencing the social exchange theory (SET).

Saks (2006) studied several antecedents of job engagement to determine which of the individual perceptions of the organization best predicted engagement. Of the variables included in Saks' engagement model (i.e., job characteristics, perceived organizational support, supervisor support, rewards and recognition, procedural and distributive justice), job characteristics and perceived organizational support were the statistically significant predictors.

Social support from colleagues and supervisors is another factor that is viewed as an antecedent of work engagement. Harter, Schmidt and Hayes (2002) indicated that engaged employees "believe they are part of something significant with employees who they trust (p. 269)." The importance of the relationship between and among individuals is supported by other researchers. Schaufeli and Salanova (2005) and Salanova, Agut, and Peiro (2005) theorized that work engagement is contagious. They found that individuals who were engaged at work were typically surrounded by other individuals who were engaged. In essence, the presence of an engaged coworker increased the chances of being engaged at work and led to a sense of collective engagement. This happens because working within a group provides more opportunities to interact, thus increasing the possibility of sharing the same feelings.

The nature of the employees' social networks influences their chances of being engaged. Another potential factor having an impact on engagement is an employee's ability to recover after the previous workday. Sonnentag (2003) investigated how recovery affects employees' day-to-day engagement. Sonnentag's results supported the notion that employees who perceived they sufficiently recovered from the strains of the workload and time constraints were more engaged on the following day after controlling for trait engagement (tendency of an individual to be engaged at work).

In addition to the benefits of recovering from work, the need to control for an individual's engagement level in Sonnentag's research highlighted the impact of the trait engagement. Macey and Schneider's (in press) review of engagement speculated that beyond environmental factors' impact on engagement, there also appears to be a dispositional component. Additionally, they proposed that the presence of various dispositional factors (e.g., positive affectivity, conscientiousness, proactive personality, and autotelic personality) could increase the chances of an individual experiencing work in a positive and energetic way. Shraga and Shirom (2007) found a significant relationship between vigor, as measured by the SMVM, and the openness and extroversion factors of the Big Five personality variables (Neuroticism, Extroversion, Openness, Agreeableness, and Conscientiousness). Additionally, they found that openness predicted vigor. Extroversion also predicted the level of vigor at different points in time.

Schaufeli and Salanova (2005) also asserted that being engaged can lead to further engagement. The mere presence of engagement creates an upward spiral of engagement within an individual. Schaufeli and Salanova explained this process as being similar to theories of self-efficacy: Individuals who have a high level of self-efficacy tend to be within situations that increase that self-efficacy. Specifically with regard to engagement, employees who were more engaged would be more likely to identify resources, work longer hours, and be more dedicated to their work, which would, in turn, create more engagement in their work (Schaufeli & Salanova, 2005). The self-generating nature of work engagement can also help explain the bi-directional nature of the causes and effects.

### *Consequences*

Work engagement is perceived to have multiple consequences or outcomes to the organization and the individual. Organizational outcomes range from improving employee

performance and personal well-being to positively impacting the organization's financial bottom line. In a study conducted by Harter et al. (2002), they found corrected correlations of engagement to a composite of business unit performance ranging from .22 - .64. They concluded that work engagement, as measured by the Gallup Workplace Audit, showed links across organizations and various outcome measures, such as customer satisfaction and loyalty, profitability, and low turnover.

Results similar to those of Harter et al. (2002) were reported by Salanova, Agut, and Peiro (2005). In a study investigating the impact of job resources and work engagement on performance and customer loyalty, Salanova et al. found a significant correlation between vigor and customer's appraisals of employee performance. Additionally, they identified service climate as fully mediating the relationship between organizational resources and work engagement and employee performance and customer loyalty. Based on their results, it is reasonable to conclude that individuals who experience work engagement create a positive service climate, which will lead to increased perceptions of performance by customers, as well as increased customer loyalty. Salanova et al.'s results also alluded to the concept of collective engagement and its contribution to the service climate.

Further support has been found for engagement leading to other positive work outcomes. Engaged employees are less likely to voluntarily leave the organization. The Corporate Leadership Council (2005), in research investigating engagement, found that individuals who were engaged were 87% less likely to participate in job search activities (e.g., sending out resumes or placing phone calls), and were considered highly committed to the organization. Schaufeli and Bakker (2004) also identified a relationship between engagement and turnover intentions. Hallberg and Schaufeli (2006) found a similar negative relationship between work

engagement and turnover intentions. Saks (2006) also found that job engagement negatively predicted intention to quit. More specifically, Schaufeli and Bakker and Saks found support for the relationship between job resources and turnover intentions being mediated by engagement.

Saks' (2006) study also found significant results for the ability of engagement to predict other organizational outcomes. Using a two-factor conceptualization of engagement (i.e., job engagement and organization engagement), Saks found that the employees' level organizational commitment and organizational citizenship behaviors were predicted by engagement. In addition to organizational benefits, there are also individual benefits associated with work engagement. Demerouti, Bakker, Nachreiner, and Schaufeli (2001), found that engaged employees experienced less psychosomatic complaints than individuals who were not engaged.

Hallberg and Schaufeli (2006) found similar results as Demerouti et al. (2001). In an investigation of the discriminant validity of the UWES, work engagement was negatively related to health complaints as measured by self-report measures of emotional exhaustion, cynicism, depressive symptoms, somatic complaints and sleep disturbances. Shraga and Shirom (2007) did not find a significant path between vigor and an objective measure of physical fitness. However, in an extension of the previous study, a significant relationship was identified between vigor at two points in time and a self-rated health measure also administered to the participants at two points in time (Shraga & Shirom, in press).

Aside from reported health benefits, researchers have found that engagement also predicts job satisfaction. Macey and Schneider (in press) argued that satisfaction is an interrelated concept with engagement. Shraga and Shirom (2007) reported that job satisfaction and engagement are related, and that there is a recursive relationship between vigor and satisfaction. In essence, individuals' appraisals of situations (represented by job satisfaction)

mediate the relationship between affective reactions and resources. This recursive relationship would continue to repeat overtime. In addition to job satisfaction, Bakker, Demerouti, de Boer, and Schaufeli (2003) found engaged employees were also typically more motivated, and showed more initiative, and attachment to work and the organization.

The antecedents and the outcomes of work engagement are organizationally and individually based. Whether the presence of job resources has a greater impact than the employee's attitude is not the main question; rather, how does the interaction between all factors further increase the chances of improved engagement levels that achieve the associated benefits. Organizational profitability, improved service climate, increased customer loyalty, increased employee health, and job satisfaction should be sufficient to encourage organizations to strive for an engaged workforce.

Practitioners have convinced organizations to embrace employee engagement and have encouraged the use of various techniques to improve engagement (Vance, 2006). Although improving engagement has been the emphasis for organizations; achieving the optimal levels of engagement within organizations can be relatively difficult.

#### *Organizational Practices to Increase Work Engagement*

Organizations utilize several techniques to increase the level of engagement that employees experience. Techniques, such as providing employees with the necessary resources to do their jobs and providing extensive training and development, all have been utilized by organizations to improve engagement (Corporate Leadership Council, 2004; Vance, 2006).

Employee engagement is a function of how employees view the organization, the job they have, their coworkers and their supervisor. Providing feedback to the employees to help them develop is necessary to improve the employee's view of the organization and the

supervisor. Schaufeli and Salanova (2005) indicated that providing an employee with a development plan, which includes structuring how and what competencies and skills an employee can develop, would lead to increased work engagement. Additionally, providing extensive work training and career planning enable employees to continue to develop new skills and abilities. Schaufeli and Salanova indicated that continuous career development increases the likelihood that an employee will remain engaged. Providing employees with continuous growth opportunities allows them to demonstrate the new skills learned and potentially increase self-efficacy. The presence of self-efficacy could lead to positive work outcomes for the individual and the organization.

Accurately identifying the developmental areas for an employee is essential. The developmental areas or skill gaps require constant monitoring by the leadership to ensure that the areas were identified correctly. The correct identification of the developmental areas, as well as the knowledge and the abilities of the leadership to know what actions to take when the areas have been identified is also important (Corporate Leadership Council, 2005). Effective leadership is necessary to foster engagement. In a 2005 study investigating how to obtain the full potential of employees, the Corporate Leadership Council concluded that organizations with high levels of engagement had leaders who were committed to developmental plans, could successfully identify development opportunities, and assign employees enjoyable developmental tasks.

To an employee, the supervisor serves as the direct representative of the organization. The feeling of engagement or disengagement begins with the supervisor. The supervisor has the ability to provide the necessary resources, developmental opportunities, and support needed for

an employee to feel engaged on the job. Additionally, it is the supervisor who typically decides how well the employee fits within the organization (Corporate Leadership Council, 2005).

As discussed above, the need to have the appropriate balance of work resources, job demands, and developmental opportunities is important to achieve engagement. Equally as important is having the appropriate personnel or employees. The Corporate Leadership Council in its 2004 report entitled “Driving Engagement,” noted that immediate managers play an important role in employee engagement by facilitating the commitment to the organization and to the work. Although having the right manager is an important part, it is not the complete driver for success. If the overall goal of an organization is to continue to out-perform its competitors, then a key aspect is the selection and retention of high potential employees. Retaining employees can be achieved by providing the appropriate resources, having the right leadership, understanding the fit between the employee and the organization, and providing competitive compensation (Corporate Leadership Council, 2004). However, if the individual selected for the position is not right for the job and does not fit within the company’s vision and direction, retaining that individual may not be beneficial. Having the appropriate selection and recruitment processes in place to improve the success of the abovementioned initiatives is also necessary. The following section will briefly review human resource recruitment and selection practices that can be utilized to increase work engagement.

### *Human Resources Practices*

Organizations utilize several techniques to recruit and eventually hire employees to help their company perform successfully. Internet recruiting, open house sessions, and interviews are all techniques that are frequently utilized. As organizations compete to attract, select, and retain higher levels of talent, multiple techniques are used. Popular approaches to attract and select



employees are realistic job previews (RJPs) and role play test. Each of these approaches can provide additional benefits beyond the specific purpose of the approach.

### *Realistic Job Previews*

Realistic Job Previews are mainly utilized to provide the candidate with information about the job. These previews help the candidate make an appropriate job choice and reduce the negative impact of incongruence between the candidate, the position and the organization (Phillips, 1998). The outcomes that are commonly associated with RJPs are perceptions of organizational climate, organizational commitment, improved coping ability, initial expectations, job satisfaction, job performance, self-selection, and job survival (Phillips, 1998; Premack & Wanous, 1985).

The employee's perception of an organization's climate includes the organization's trustworthiness, supportiveness, honesty and candidness. The use of an RJP during the recruitment process has been found to lead to more positive perceptions of the climate (Premack & Wanous, 1985). The same results apply to organizational commitment. Candidates who received RJPs showed increased levels of organizational commitment as measured by the Organizational Commitment Questionnaire (Porter, Steers, Mowday, & Boulian, 1974). In a meta-analysis, Premack and Wanous identified significant effect sizes that support the use of RJPs for improving organizational commitment. Support for RJPs' impact on coping was also reported by Premack and Wanous. Although, they urged that their results be taken with caution given the small number of studies in their analyses, they found individuals who received RJPs were able to cope with the unexpected aspects of a new job more effectively than newcomers who were not provided RJPs. Expectations were also more appropriately aligned when

newcomers received RJPs (Meglino, DeNisi, Youngblood, & Williams, 1988; Phillips, 1998; Premack & Wanous). Therefore, candidates knew what to expect and were less disillusioned.

Reduced expectations could also lead to increased satisfaction for a newcomer. Premack and Wanous (1985) reported an initial increase in satisfaction for those employees who received RJPs versus a control group. Phillips (1998) also reported significant effects for job satisfaction and job performance when RJPs were provided. Overall, the use of RJPs showed a positive impact on job satisfaction and performance (Phillips, 1998; Premack & Wanous, 1985). Phillips, however, identified that the medium used to communicate the realistic preview moderated the effect on both job satisfaction and job performance.

Much of the focus of realistic job preview research has been on the impact of RJPs on self-selection and job survival. One of the desired outcomes from the use of RJPs is to provide candidates with information to self-select out of the recruitment process if they perceive a poor fit with the organization. Premack and Wanous (1985) indicated that RJPs appear to increase the percent of job candidates who remove themselves from the process; however concluding that this supports the self-selection hypothesis requires additional research.

Phillips (1998) reported RJPs have demonstrated the ability to reduce turnover and increase job survival. Phillips reported that RJPs negatively impact turnover, specifically voluntary turnover. The results, however, were moderated by the setting, the timing and the method of the RJP. Premack and Wanous (1985) reviewed several studies involving the use of RJPs, which demonstrated increases in newcomer survival from 60%-83%. The results of their meta-analysis further supported the use of RJPs to reduce turnover and increase job survival.

RJPs can also affect organizational outcomes, such as predicting job satisfaction, organizational commitment, and performance. Additionally, RJPs positively impact employee

survival and reduces voluntary turnover. The overall results indicated by Premack and Wanous (1985) and Philips (1998) providing candidates with an RJP allowed candidates the opportunity to make the correct job choice, be more satisfied on the job because of the fit between expectations and reality, as well as be more committed to the organization. Although the method used to present an RJP impacts the outcome, candidates who received RJPs did not leave their job as often and even performed better than individuals who did not receive RJPs (Phillips, 1998).

The use of RJPs is supported by the research summarized above. Methods that can also impact organizational outcomes as well as integrate aspects of RJPs are selection methods that utilize work samples. A frequently used method for assessing candidates' abilities is a role play assessment.

#### *High Fidelity Role Play Assessments*

Role play assessments provide benefits beyond the typical scope of assessing a candidate's skills and abilities. Role plays provide candidates an RJP, and also a sneak-peak into the organization's culture and value-system. Role plays are an effective method for measuring multiple competencies, they are typically widely accepted within organizations, and tend to leave a more positive impression on candidates. When role plays are utilized to select candidates, candidates report that the assessment process was fair (Truxillo, Steiner, & Gilliland, 2004). This, in turn, helps to provide the candidate with a positive impression of the organization, and increase the chance of the candidate viewing the organization as a place that he or she would like to work (Truxillo, et al.).

One of the benefits of role plays and other high fidelity tests is that they allow a candidate to make judgments about the job and provide the candidate with the opportunity to voluntarily select out of the process. They act like and bring about similar benefits as a realistic job preview.

In addition, the way candidates perceive the testing process influences the candidates' impressions of the organization (Gilliland, 1993). Candidates who feel that the testing process is appropriate for the position are more likely to feel that they have been treated fairly. This is important because it leaves positive impressions on candidates (Gilliland, 1993). As described in the review of realistic previews, candidates' impressions of the organization will impact whether they will accept a job if one is offered. The use of role play assessments or tests that closely mirror the position can, in theory, improve the initial levels of work engagement demonstrated by the newcomer.

By mirroring a position more closely than a traditional paper and pencil test, role plays and other high fidelity tests can measure multiple competencies important for the job. Although a multiple hurdle approach using various assessments may be desired, a role play can more efficiently achieve similar results.

In a study investigating low fidelity simulations, Montiwidlo, Dunnette and Carter (1990) reported that the benefits of utilizing simulations and role plays and their impact on employee performance far outweigh the costs of development and implementation. Additionally, the use of a role play that is representative of the job can assess the competencies required on the job and provide the candidate with the opportunity to perform certain aspects of the job. If the situations utilized in the role play are representative of the important work tasks, using this method to assess candidates' skills will provide the candidates with insight into the day-to-day work activities. Therefore, beginning the socialization process prior to being hired will increase

employees' engagement on the job. Realistic job previews and role play assessments are recruitment and selection techniques that can be used to increase engagement by aligning candidates' expectations with the expectations of the organization.

Employee engagement, as described above, is a psychological construct that can be experienced by employees. Although there are different viewpoints of what engagement is and how it is measured, there is agreement among researchers about the overall benefits of work engagement. The research supports the link between engagement, performance, intentions to remain on the job, customer loyalty, organizational commitment, and other positive work outcomes (Harter, Schmidt, & Hayes, 2002; Salanova, Agut, & Peiro, 2005; Schaufeli & Salanova, 2005).

The factors leading to engagement have also been widely researched and strongly supported. Researchers found support for the importance of the social relationships experienced at work, as well as the ability to recover from the day's work leading to engagement (Harter, Schmidt, & Hayes, 2002; Sonnentag, 2003). Additionally, the presence of engagement in some individuals can also lead to increased engagement levels in others. Other antecedents of work engagement point to the availability of job resources, such as supervisory support, coaching, job control, and organizational support (Demerouti et al., 2001).

Because of the associated benefits, creating environments that foster engagement have become goals for organizations. Organizational approaches that are used to increase engagement are providing employees with training and developmental opportunities, as well as the presence of quality leadership (Schaufeli and Salanova, 2005). Although the approaches reviewed in the prior sections highlight methods that can be utilized after the employee has been hired, very few studies, if any, have addressed how the selection of employees impacts engagement.

Therefore, the purpose of this study is to establish the link between human resources practices, such as, employee recruitment and selection methods and an employee engagement model.

### *Proposed Approach*

As cited above, work engagement is a function of the individual and the organizational environment. Very few studies have investigated the methodology utilized to hire employees into organizations and how the methodology impacts individuals' level of engagement. Recruitment and selection practices that are widely utilized by organizations to aid the socialization process are realistic job previews (RJPs). RJPs have demonstrated success in improving organizational fit by providing candidates with the appropriate information needed for them to make informed decisions about the available position. The use of an RJP, in essence, improves the fit between the individual and the organization (Philips, 1998). Therefore:

Hypothesis 1: Employees who received a realistic job preview will demonstrate higher levels of work engagement, as measured by the Utrecht Work Engagement Scale, than individuals who did not receive a realistic job preview. More specifically:

Hypothesis 1a: Employees who received an RJP will demonstrate a significantly higher level of vigor than employees who did not receive an RJP.

Hypothesis 1b: Employees who received a realistic job preview will demonstrate a significantly higher level of dedication than employees who did not receive an RJP.

Hypothesis 1c: Employees who received a realistic job preview will demonstrate a significantly higher level of absorption than employees who did not receive an RJP.

Similar to RJPs, role play assessments provide candidates with insight into the job's tasks, by giving the candidate the opportunity to experience the job in a simulated environment. Candidates also obtain additional information about the organization, and the factors that are important for success within the organization. Role play assessments also serve as an additional job preview. Hence:

Hypothesis 2: Employees who received a role play test will report significantly higher levels of work engagement than employees who did not receive a role play test. More specifically:

Hypothesis 2a: Employees who received a role play test will report higher levels of vigor than employees who did not receive a role play test.

Hypothesis 2b: Employees who received a role play test will report higher levels of dedication than employees who did not receive a role play test.

Hypothesis 2c: Employees who received a role play test will report higher levels of dedication than employees who did not receive a role play test.

After establishing the link between employee selection methods and work engagement, a link between work engagement and outcome variables will be established. Previous studies on recruitment and selection practices, such as RJPs and role plays and their outcomes, have been well-documented. Researchers have demonstrated the predictability of RJPs and role plays on job performance, job satisfaction, and turnover (Barrick & Zimmerman, 2005; Schmidt & Hunter, 1998; Premack & Wanous, 1985). Additionally, research has supported a link between

work engagement, job satisfaction, turnover, and performance (Schaufeli & Salanova, 2005; Harter, Schmidt, & Hayes, 2003; Salanova, Agut, & Peiro, 2005). It is proposed that recruitment and selection practices also impact work outcomes indirectly through work engagement. Therefore, work engagement partially mediates the effect between organizational staffing practices and job satisfaction, personal health, job performance, and intention to quit (see Figure 1). Therefore:

Hypothesis 3: Recruitment and Selection practices will indirectly impact personal and organizational outcomes through engagement. More specifically:

Hypothesis 3a: RJPs will indirectly impact outcomes (job satisfaction, job performance, personal health, intention to quit) through work engagement, as measured by vigor, dedication, and absorption.

Hypothesis 3b: Receiving a role play will indirectly impact outcomes (job satisfaction, job performance, personal health, intention to quit) through work engagement, as measured by vigor, dedication, and absorption.

## Methods

### *Participants and Procedures*

More than 250 employees of a telecommunications company were surveyed to assess their level of work engagement and the impact that the selection method used to hire them had on engagement. Each participant was e-mailed an Internet link to an online survey. The participants were given 10 days to complete the survey. Three follow-up e-mails were sent to the participants reminding them to complete the survey. The first follow-up e-mail was distributed on the third day, the second on the seventh day and the last reminder was sent on the 10<sup>th</sup> and



final day responses would be received. Of the 274 employees who were sent the survey, 175 responded, resulting in a 63% response rate. Only 161 of the 175 employees who responded to the survey were retained for analyses. The cases that were removed from the study were incomplete and missing a significant number of responses across multiple variables.

The participants who were retained represented two different job titles within three different call center locations. Both of the job titles were customer service positions that provide varying levels of technical support to customers. The first job title (Job 1), which represented 52.2% of the sample, serves as the first level of contact for customers when customers experience a service problem. The second job title (Job 2) represented 47.8% of the sample and is considered the second level of support for the customers when the first level of support was unable to solve the service problem (see Table 1). The three call centers were located in California, Texas, and Virginia. The percentage of the sample equaled 28.6% for both California and Texas, and 42.9% for Virginia. The sample was 82.6% male; and 41.6% of the respondents fell within the 26 – 35 age range (see Table 1).

Participants were asked to respond to questions about their background, employment history, gender, race, years in the company, job title hire date, and their intention to leave the job. Racial groups, represented in Table 1, were combined to create a minority and majority dichotomy. The minority group represented 53.4% of the sample. Job tenure, or length of time in the position, was calculated in months based on the difference between the job title entry date and the date the respondents completed the survey. Job tenure ranged from 4 months to 41 months, with 13.3% of the participants in their position for 7 months.

Additionally, the participants were asked to rate their impressions of the selection system and recruitment process, whether they felt the information they were provided about the job and

the organization was accurate and if the selection method accurately represented the position. For most items, the participants were asked to use a five-point Likert scale ranging from 1 “Strongly Disagree” to 5 “Strongly Agree” to rate the items (see Appendix A).

Additional data about job performance and other information used to confirm responses provided on the survey (e.g., the hire date, test performance, and other job titles held) were obtained from the organization’s human resources group. Job performance was measured by percent of service level for each job title in each center for the period of January 2007 through August 2007. The percent of service level was based on the average time it took to handle a call, the time it took to answer a call, the work time, and talk time for each job title. The percent of service level for each title was entered for each participant with the corresponding job title in the respective work center. For example, all Job 1 employees in the California call center were assigned the same average job performance data.

### *Measures*

#### *Work Engagement*

The 17-item Utrecht Work Engagement Scale (UWES) was used to assess the level of engagement of the employees (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). The items measured three subscales of engagement vigor (6 items; 1,4,8,12,15,17), dedication (5 items; 2,5,7,10,13), and absorption (6 items; 3,6,9,11,14,16). All items were rated on a seven-point frequency rating scale ranging from 0 “Never” to 6 “Always” (see Appendix A). As reported in the UWES Test Manual, the coefficient alphas for the engagement subscales ranged from: .81 to .90 for vigor, .88 to .95 for dedication, and .70 to .88 for absorption (Schaufeli & Salanova, 2003).

### *Turnover Intentions*

The intent to leave the job was measured by one dichotomous item asking if employees planned on leaving the position within the next six months. Responding “No” was coded as 0 and responding “Yes” was coded as 1.

### *Personal Health*

Personal health was assessed using a self-report General Health item from the Short Form of the Medical Outcomes study (SF-36) (Ware, 1993). The SF-36 is a 36-item self-report questionnaire assessing individual perceptions of personal health. The SF-36 contains five items in the General Health subscale. Of the five items within the General Health subscale, item 1 had the highest loading found in a previous study by the researcher (Gill, 2001). The item was rated on a five-point scale ranging from 1 “Poor” to 5 “Excellent”.

### *Job Satisfaction*

Job Satisfaction was assessed using the five-item Index of Job Satisfaction scale (Brayfield & Rothe, 1951). All items were rated on a five-point agreement rating scale ranging from 1 “Strongly Disagree” to 5 “Strongly Agree”. Job satisfaction items 3 and 5 were recoded to match the direction of the other items. Brayfield and Marsh (1957) reported reliability coefficients ranging from .60 to .89.

## Results

Prior to the main analyses, missing data, outliers, skewness, kurtosis, collinearity, and multicollinearity were examined. The frequencies were examined for each variable to test for outliers, as well as errors in data entry. Histograms, skewness, and kurtosis were examined to determine normality of each item and variable. Participants with significant missing data were

removed from the data set. Out of 174 respondents, 10 cases were removed because of extensive missing data. In testing for multivariate outliers using Mahalanobis' distance, two cases were identified as significant outliers and were excluded from any further analyses. Following the cleaning of the data, frequencies, and descriptive statistics were obtained for the biographical items (see Table 1).

Means, standard deviations, reliability estimates and correlation coefficients for work engagement, job satisfaction, personal health, job tenure, job performance, turnover intentions, realistic job previews, and role play tests are shown in Table 2. The coefficient alphas for vigor, dedication, and absorption were  $\alpha = .84$ ,  $\alpha = .85$ , and  $\alpha = .70$ , respectively. The obtained alphas for vigor and absorption fell within the range reported in the UWES Test Manual. However for dedication, the coefficient alpha was slightly lower than the range reported in the manual (Schaufeli & Salanova, 2003). The observed coefficient alpha for job satisfaction was  $\alpha = .89$ , which was in range with Brayfield and Marsh's (1957) findings. Since they were single items, reliability coefficients could not be calculated for general health, job performance, or intention to quit variables.

Two groups were created to distinguish between individuals who received an RJP (coded as 1) and those who did not receive an RJP (coded as 0). The two groups were compared based on demographic variables (i.e., gender, race, age group, and job tenure). Due to the discrete nature of the variables, a Chi-Square ( $\chi^2$ ) test of independence was performed to test whether the group who received the RJP was different from the group who did not receive the RJP based on gender and racial group (majority and minority). The results indicated those who received the RJP did not differ in gender from those who did not receive the RJP  $\chi^2(1, N = 161) = 1.12, p > .05$ . Similarly, those who received the RJP did not differ based on racial group  $\chi^2(1, N = 161) =$

.69,  $p > .05$  from those who did not receive the RJP. Analysis of variance was conducted to test differences between age group, job tenure and the RJP groups. Based on the results, the group who received the RJP did not significantly differ in age group  $F(1, 160) = .64, p > .05$  and job tenure  $F(1, 160) = 2.29, p > .05$  from those who did not receive the RJP (see Table 3).

To test Hypothesis 1, MANOVA was utilized to determine whether participants who received an RJP ( $N = 147$ ) were significantly different on the engagement variables from participants who did not receive an RJP ( $N = 14$ ). Although the following analyses yielded some significant results, the results should be taken with caution given the small number of participants within the no RJP group. The multivariate test, Wilks' Lambda, was significant, with a value of .94  $p < .05$  based on the combination of the three engagement variables. Univariate tests were also conducted for each of the three dimensions. Individuals who received RJP were significantly different at the  $p < .05$  level on dedication  $F(1, 160) = 9.273$ , with an adjusted  $R^2 = .05$ . Absorption was also significant  $F(1, 160) = 4.43$ , with an adjusted  $R^2 = .02$ . Based on a comparison of the mean differences between the groups, individuals who reported receiving an RJP indicated higher levels of dedication ( $M = 4.03$ ) than individuals who did not receive an RJP ( $M = 3.13$ ). Similar results were found for absorption. Individuals who reported receiving an RJP indicated higher levels of absorption ( $M = 3.49$ ) than those who did not receive an RJP ( $M = 2.96$ ). Significant differences were not found for vigor  $F(1, 160) = 3.57, p = .06$  Table 4 provides the details for the three univariate analyses. Therefore, the data supported Hypotheses 1b and 1c, which stated that individuals receiving an RJP would show higher levels of dedication and absorption than those who did not receive an RJP. The data did not support Hypothesis 1a, indicating that there were no differences between the individuals who did and did not receive an RJP on the level of vigor reported.

In order to test Hypothesis 2, two groups were created that distinguished between those who received the role play (coded as 1) and those who did not (coded as 0). The two groups were compared based on demographic variables (gender, race, age group, and job tenure). A Chi-Square ( $\chi^2$ ) test of independence was performed to test whether the group who received the role play test was different from the group who did not receive the role play test based on gender and racial group (majority and minority). The results indicated those who received the role play test did not differ in gender from those who did not receive the role play test  $\chi^2(1, N = 161) = .41, p > .05$ . Similarly, those who received the role play did not differ based on racial group  $\chi^2(1, N = 161) = .06, p > .05$  from those who did not receive the role play. Analysis of variance was conducted to test for differences between role play groups in terms of age group and job tenure. The two groups did not differ with regard to age group  $F(1, 160) = 1.89, p > .05$ . The groups, however, were significantly different based on job tenure  $F(1, 160) = 36.80, p < .05$  (see Table 5). The difference between the two groups on job tenure was consistent with how the testing system was implemented. Participants who held the job longer were not hired using the role play; they were hired using another selection system.

Following the identification of the demographic variable for which the groups differed, Hypothesis 2 was tested. To test Hypothesis 2, a MANCOVA was utilized to determine whether employees who received the role play ( $N = 66$ ) significantly differed on engagement from individuals who did not receive the role play ( $N = 95$ ). Given the significant difference in job tenure between the test groups, job tenure was considered a covariate and the effects of job tenure on engagement were examined first. Significant results were found for the effect of job tenure on vigor  $F(1, 160) = 5.26, p < .05$  and dedication  $F(1, 160) = 6.52, p < .05$ . The results for job tenure on absorption were not statistically significant  $F(1, 160) = 0.83, p = .37$ .

A MANOVA was conducted and yielded Wilks' Lambda of .99,  $p = .63$  (not significant). Individuals who received the role play test did not significantly differ on the level of engagement reported after accounting for the differences in job tenure. For the univariate analyses, the effect of receiving the role play was not statistically significant for the three engagement variables after job tenure was removed, vigor  $F(1, 160) = 0.05, p = .82$ , dedication  $F(1, 160) = 0.63, p = .43$ , and absorption  $F(1, 160) = 0.93, p = .34$ . Vigor had an Adjusted  $R^2 = .03$ , dedication had an adjusted  $R^2 = .05$ , and absorption had an adjusted  $R^2 = .01$ . Hypotheses 2a, 2b, 2c were not supported.

Although only partial support was found in this study for the hypotheses that selection and recruitment practices impact engagement, the impact of engagement on the consequences (i.e., job satisfaction, health, job performance, and intention to quit) was also of interest.

The Pearson Product Moment Correlations were examined to determine the relationship between job satisfaction and work engagement. As indicated in Table 2, vigor was positively related to job satisfaction with a correlation coefficient of  $r(161) = .74, p < .05$ . Dedication was positively related to job satisfaction with a coefficient of  $r(161) = .77, p < .05$ . Absorption was positively related to job satisfaction with a coefficient of  $r(161) = .51, p < .05$ .

To test the ability of work engagement to predict job satisfaction, a hierarchical regression was conducted. The three work engagement variables were entered into the equation together as the independent variables, job satisfaction was the criterion. The results were significant with an  $R^2 = .578, p < .05$ . Vigor ( $\beta = .35, t = 3.65, p < .05$ ) and dedication ( $\beta = .47, t = 5.24, p < .05$ ) were significant predictors of job satisfaction in the model (see Table 7). Absorption was not a significant predictor of job satisfaction ( $\beta = -.01, t = -0.15, p = .88$ ).

The Pearson Product Moment Correlations were examined to determine the relationship between work engagement factors and personal health (see Table 2). A significant positive correlation with health was obtained for vigor  $r(161) = .49, p < .05$ , dedication  $r(161) = .32, p < .05$ , and absorption  $r(161) = .20, p < .05$ .

To test the ability of work engagement to predict personal health, a hierarchical regression was conducted. The three work engagement factors were entered into the equation as the independent variables, personal health was the dependent variable. The results were significant with an  $R^2 = .26, p < .05$ . Vigor ( $\beta = .74, t = 6.01, p < .05$ ) was the only significant predictor of personal health in the model (see Table 8).

In an attempt to further understand the impact that work engagement had on personal health, job satisfaction was also entered into the equation. Given the significant results obtained for the ability of work engagement to predict job satisfaction and the perceived overlap between the two constructs, entering job satisfaction into the equation would allow reasonable conclusions to be drawn about the unique impact of engagement on personal health. Job satisfaction was entered into the equation in Step 2. According to the nonsignificant change in  $R^2 = .00$ , job satisfaction ( $\beta = .00, t = 0.01, p = 0.99$ ) did not account for any variance above work engagement (see Table 8).

To further clarify the mediation that work engagement had on personal health, a hierarchical regression was conducted, reversing the order of entry of the variables from the previous regression analysis. In Step 1, job satisfaction was entered into the equation; in Step 2, the work engagement variables were entered into the equation. For Step 1 when job satisfaction was entered into the equation alone, the results were significant with an  $R^2 = .09$ , and  $F(1, 158) = 15.39, p < .05$ . Job satisfaction had a coefficient of ( $\beta = .29, t = 3.92, p < .05$ ) (see Table 9). In



Step 2, when the work engagement variables were entered into the equation, the change in  $R^2 = .17$ , was significant  $F(3, 155) = 11.96, p < .05$ . However job satisfaction's standardized coefficient ( $\beta = .00, t = 0.01, p = .99$ ), was not significant. Vigor had a significant coefficient ( $\beta = .74, t = 5.75, p < .05$ ). Based on the nonsignificant results obtained for job satisfaction when engagement was entered into the equation, the effect of job satisfaction on personal health was fully mediated by work engagement.

Aside from personal health, the effect work engagement had on job performance was also of interest. A hierarchical regression was conducted to determine the predictability of job title service level on work engagement. Vigor, dedication, and absorption were the predictors and entered into the equation together. An  $R^2 = .03$ , was obtained with a nonsignificant change statistic  $F(3, 156) = 1.56, p = .20$  for that step. Vigor ( $\beta = -.22, t = -1.55, p = .12$ ), dedication ( $\beta = .25, t = 1.85, p = .07$ ), and absorption ( $\beta = .07, t = 0.66, p = .51$ ) were not significant predictors of job title service level. Job satisfaction was again entered into the model. The change in  $R^2$  was  $.021$ , with a nonsignificant change statistic  $F(1, 155) = 3.46, p = .07$ . The addition of satisfaction slightly improved the predictability of the model; however the results were not significant (see Table 10). Vigor ( $\beta = -.29, t = -2.02, p < .05$ ), however, did become a significant negative predictor of job title service level after job satisfaction was entered into the equation.

To fully understand how work engagement and job satisfaction impact job performance, additional hierarchical regressions were performed. In Step 1, job satisfaction was entered into the equation first. An  $R^2 = .03$ , was obtained with a significant change statistic  $F(1, 158) = 4.11, p < .05$  for Step 1. Job satisfaction had a significant standardized coefficient ( $\beta = .16, t = 2.03, p < .05$ ) (see Table 11). In Step 2, vigor, dedication and absorption were entered into the model. The change in  $R^2 = .025, F(3, 155) = 1.36, p = .26$  was not significant. Job satisfaction was no

longer a significant predictor of job performance ( $\beta = .24, t = 1.86, p = .07$ ); however, vigor became a significant negative predictor of job performance ( $\beta = -.29, t = -2.02, p < .05$ ). Based on these results work engagement did not significantly predict job performance with the addition of job satisfaction.

A similar regression technique was performed to test the predictability of work engagement on employees' intention to leave the organization. Vigor, dedication, and absorption were the independent variables and intention to leave the organization in six months was the dependent variable. All three work engagement variables were entered into the model together. An  $R^2 = .03$ , was obtained with a nonsignificant change statistic  $F(3, 154) = 1.61, p = .19$ . Vigor ( $\beta = -.18, t = -1.26, p = 0.21$ ), dedication ( $\beta = .09, t = .59, p = 0.55$ ), and absorption ( $\beta = -.08, t = -.76, p = .45$ ) were not significant predictors of the intent to leave in six months. Job satisfaction was entered into the equation in Step 2. The change in  $R^2 = .02$  with a nonsignificant change statistic  $F(1, 153) = 2.60, p = .11$ . Vigor, dedication, absorption and job satisfaction were not significant predictors of turnover intentions when included in the model together (see Table 12).

Additional investigation into the possible mediation of job satisfaction was conducted to clarify the results. A hierarchical regression was conducted entering job satisfaction into the equation first. A significant  $R^2 = .03$  was found  $F(1, 158) = 5.34, p < .05$ , for that step with job satisfaction obtaining a standardized coefficient of ( $\beta = -.18, t = -2.3, p < .05$ ). In Step 2, vigor, dedication, and absorption were entered into the equation, resulting in a nonsignificant change in  $R^2 = .01, F(3, 155) = .71, p = .55$ . Based on the results, job satisfaction and the work engagement variables were not significant predictors of turnover intentions in Step 2 (see Table 13). Job satisfaction was the significant predictor of turnover intentions when entered into the equation alone; however, with the addition of work engagement, the results were no longer

significant. The results support the contention that job satisfaction mediates the relationship between engagement and turnover intentions.

The major purpose of this study was to investigate a work engagement model which included recruitment and selection practices mediated by work engagement, as it predicted job satisfaction, personal health, job performance and intention to quit. In the first stage of the analyses, the impact of recruitment and selection practices were tested. The use of RJPs was the only test group that yielded significant results, without covariates, for any of the engagement variables. Individuals who received an RJP reported higher levels of dedication and absorption. In the second stage of the analyses, the ability of vigor, dedication, and absorption to predict work outcomes were tested. Personal health and job satisfaction were the only outcome variables that were predicted by work engagement without full or partial mediation of job satisfaction. Only vigor and dedication were reported as significant predictors of either job satisfaction or personal health. Vigor was a significant predictor of job satisfaction and personal health. Dedication was a significant predictor of job satisfaction. Without significant results found during stage one of the analyses of the RJP impacting vigor, a test of dedication serving as a mediator of RJPs on job satisfaction was the only remaining logical analysis to test the proposed model. However, due to the small number of participants found within the no RJP group (N = 14), the analyses would return results that would not be generalizable and potentially inconclusive. Therefore, the analysis of dedication mediating the RJP, job satisfaction relationship was not performed. Hypothesis 3a was inconclusive and Hypothesis 3b was not supported by results found in the previous analyses.

## *Summary*

Receiving an RJP had a significant impact on responses for two of the three work engagement variables. After job tenure was accounted for, significant differences were not reported on work engagement for those who received a role play. Further investigation was conducted to understand the correlates and outcomes of work engagement. Job satisfaction emerged as a significant correlate and outcome to work engagement. Additionally, personal health was predicted by work engagement, more specifically vigor. Also, work engagement mediated the relationship between job satisfaction and personal health.

Work engagement did not predict performance. Additionally, the contention that engagement autonomously predicts turnover intentions was not supported by these data. The predictability of work engagement on turnover intentions were mediated by job satisfaction.

Overall, support was found for the link of RJP to work engagement, indicating an additional benefit of RJP's use while recruiting employees. However, the use of a role play assessment did not return a direct link to work engagement after the effect of job tenure was controlled. Lastly, the proposed model of engagement mediating the effects of the RJP and the role play was not supported.

## Discussion

Work engagement, characterized by vigor, dedication and absorption in the work that one does, has empirically been linked to employee well being, organizational citizenship behaviors, and positive work outcomes. This study served as an investigation of how human resources recruiting and selection methodologies and practices factor into the engagement model.

### *Antecedents of Work Engagement*

In a guide to understanding and increasing employee engagement and commitment in organizations, Vance (2006) outlines that employer practices ultimately influence business results indirectly through employee job performance and the engagement and commitment that employees have to their work. Several studies have demonstrated that engagement partially mediates the relationship between antecedents and consequences (Saks, 2006; Schaufeli & Bakker, 2004; Sonnentag, 2003). This study examined a similar model to that of previous researchers, with an emphasis on the employer practices, engagement, performance, and business results. It was hypothesized that employer practices, such as realistic job previews and the types of selection tests used, would influence employee engagement. These recruitment and selection methods have already been established to positively impact job performance and turnover intentions (Phillips, 1998; Premack & Wanous, 1985), however, the effect that these employer practices had on engagement was unknown.

Hypothesis 1 predicted that individuals who recalled receiving a realistic job preview would have significantly higher levels of engagement, as measured by the three engagement variables, than those who did not recall receiving an RJP. Drawing from research on RJPs, receiving the RJP would have provided the candidate with information about the position to allow him or her to opt out of the staffing process (Meglino et al., 1988). Additionally, for those who remained, the RJP would provide information about basic expectations of the job functions. Hypothesis 1 was partially supported by the data. The effect of receiving the RJP led to significantly higher levels of absorption and dedication. However, the data did not support a significant difference between receipt of an RJP and the level of vigor.

The effect that RJPs had on absorption, or being engrossed in one's work, is in line with the underlying purpose of an RJP. The use of RJPs provided individuals with information to

make a decision about how well they would fit within the organizational climate and the job duties (Phillips, 1998). The employee fitting into the organizational climate or the job is termed person-job fit. Person-job fit has been conceptualized as a match between the person's knowledge, skills, and abilities (KSAs), the demands of the job, the desires of the individual, and what the job provides (Edwards, 1991). Applicants who perceive a fit between their KSAs and the job's use of those KSAs are more likely to continue in the selection process and later accept a position (Carless, 2005). By receiving an RJP and remaining in the selection process, a candidate is partially accepting the expectations of the position. A candidate's acceptance of the position may be because they are more likely to enjoy that type of work: the position matches what the candidate was looking for within a position. If congruence is perceived between what the candidate desired and what the position requires, then the employee would probably be immersed in the work, feel happy while performing the work, and feel that time flew when they were working (Cable & DeRue, 2002). Scroggins (2007) found similar results for the benefits of the fit. The mere perception of fit by employees related to positive job attitudes (e.g., job satisfaction, organizational commitment, and reduced intentions to quit).

The same reasoning can be applied to the dedication variable. By accepting the job as presented by the RJP, congruence between the individual and the position can be assumed. Therefore, an individual would be more dedicated to the position. This would be true in cases where the employee related to the job or experienced a sense of self within the roles of the position. By experiencing the fit, the employee would experience greater satisfaction with the work he or she does and have greater enthusiasm about the position and feel that their work is full of meaning and purpose. This is in line with Maslach's conceptual model of the burnout-engagement continuum (Maslach, 1998). Maslach proposed that individuals who experience

congruence between themselves and the job on six areas (workload, control, reward, community, fairness, and values) would experience a sense of engagement. In essence, if the conceptualization of the job is in line with the individuals' preferences, they would be dedicated and committed to the job (Maslach, 1998). While dedication and commitment have been viewed as separate but similar concepts (e.g., Hallberg & Schaufeli, 2006), Scroggins indicated that organizational commitment can be obtained by the perception of fit. Although Maslach indicated there is little evidence of the independent impact of each of the six areas (workload, control, reward, community, fairness, and values) on engagement, information presented in RJPs can provide expectations about the workload, the control, and the values of the job. The presentation of that type of information would lead to congruence between the individual and the job and inevitably create the sense of absorption and dedication when the individual perceived a fit with the job.

Although the results found for vigor and RJPs were not significant, the results can be easily explained. Vigor is characterized by the employee being energized, strong and resilient at work. These are more trait-like concepts that are attributes of the individual and not as much a function of the job. Information provided during RJPs are designed to provide the candidate with information about the job, however, an RJP is less likely to provide information about how personality would interact with the environment.

Overall, individuals who reported receiving RJPs reported significantly higher engagement levels on two of the three engagement variables than those who did not recall receiving an RJP. This finding was in line with the researcher's theory that individuals, who accept what is presented about the job as something they are willing to do, view a sense of congruence with the job, and feel the job will allow them to demonstrate their KSAs, will report

higher engagement levels. Additionally, the results support theories of person-job fit and the benefits of RJPs (Maslach, 1998; Meglino, et al., 1988; Phillips, 1998).

The results, however, did not support Hypothesis 2, and the proposed differences receipt of a role play would have on work engagement. Nonsignificant differences were found between individuals who received a role play and those who did not receive a role play on the three work engagement scales after job tenure was considered. The basis for the hypothesis was that individuals who received a role play would be given insight into the requirements of the position, as well as how the job is performed. Much like an RJP, individuals would be able to either continue on in the selection process or self-select out because they did not view a sense of fit with the job. Although the self-selection hypothesis may have occurred, the benefits of congruence between the job requirements and the individual may not have been experienced. This may be the case because of the impact of job tenure on the effects of receiving a role play test and engagement. As individuals continue in a position, they gain a better understanding of what the job is, the requirements, and the expectations. The job requirements and expectations are presented in a limited scope within the role play. The role play captures the major aspects of the job, but the full extent of the job could not feasibly be captured and measured within the testing session. The RJPs, were either accounts of the job delivered by job incumbents, job descriptions read to the candidates or brief videos viewed by the candidates. The brevity or lack of information and detail presented in the RJP may actually work to the advantage of the RJP. The limited information allows candidates to fill in the blanks as to how they would interact or fit within the organization. When candidates receive highly face valid assessments there is little left up to the candidates' imaginations. With role play tests the job, or the major functions of the job, are presented in limited scope, but with more reality than an RJP. After candidates are on the



job, and the longer they are on the job, they have a better understanding of the job duties. They may start to see incongruence or discrepancies between the role play and the job functions. The role play would select individuals who would be successful (as indicated by the significant positive correlation between role play and performance, see Table 2), but may also disillusion the candidates. The disillusionment may lead to greater incongruence between the job and the individual, leaving the employees to be less absorbed, dedicated or energetic about the work.

A finding worth noting is the significant negative relationship between job tenure and two of the three work engagement variables (vigor and dedication) (see Table 2). The reported levels of work engagement were lower the longer employees held the job. These results point to an inability to sustain a level of energy and dedication toward work for an extended period of time. Motivational theories, such as Job Demands-Resource (JD-R) Model (Demerouti et al., 2001), Social Exchange Theory (SET), and Conservation of Resources (COR) theory (Hobfoll, 1989) may help explain this relationship.

According to Demerouti et al. (2001) the JD-R model focuses on two main characteristics of the work environment job demands and job resources. Job demands are the physical/environmental, social and organizational aspects that require sustained physical and psychological energy. Job resources are the individual or social factors of the job that help individuals achieve work related goals, reduce the impact of the job demands, and stimulate personal growth. The presence of high job demands require sustained effort and can easily deplete the employee's job resources. This depletion of resources can lead to reduction in health, energy, and exhaustion (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Alternatively, with the availability of job resources, employees may have increased levels of organizational commitment, work engagement, self-esteem, and self-efficacy.

SET argues a similar point as JD-R, individuals and organizations are interdependent, with obligations created by multiple interactions over time (Saks, 2006). The idea is that relationships evolve over time to include trust, loyalty, and commitment. In essence the actions of one party lead to reciprocal responses by the other. In the case of JD-R and Maslach's theory of engagement, SET illustrates that providing employees with resources will lead to the utilization of the employees' personal resources in a way that reciprocates that which was provided to them. In this case, if provided with resources, employees will demonstrate varying levels of engagement (Saks, 2006). However, when organizations fail to provide resources the result will be employees withdrawing and becoming disengaged, or less engaged.

The impact of the lack of available resources can be explained by Hobfoll's COR theory (1989). This theory postulates that employees are motivated to not lose the resources they have and to constantly obtain new resources to counteract the negative effects of workplace stressors. Much like JD-R, the resources mentioned by Hobfoll have psycho-social characteristics. The strength of COR is that the desire to conserve personal resources provides certain benefits. Benefits that could lead to the strengthening of resources (i.e., a gain spiral) and could help fend off future loss. Conservation and gain vary with the types of resources and how the resources are affected over time. For example, Hobfoll indicated that resources, such as self-esteem, continue to feed themselves but the benefits do not fade over time. However, social support is a resource that can easily change over time. A loss of social support would lead to the reduction of other resources and, in turn, impact the level of engagement experienced by the employee. Therefore, as job tenure increases, demand for an individual's resources potentially increases and resources, such as social support, can decrease thus reducing the level of engagement experienced.

By examining more closely motivation and stress theory it is apparent that the resources available to individuals to cope with work and stressful events can easily deplete if not provided with additional resources or aspects to reduce the chances of the loss. This concept clearly has an element of time which highlights that the longer employees work within a job the greater the chances are that their resources will be depleted. Therefore, if other factors do not intervene, a negative relationship develops between feelings of engagement and the length of time employees are in the job. Simply stated, as job tenure increased an employee's level of work engagement, job satisfaction and intentions to remain in the job decreased.

### *Engagement Outcomes*

In this study, job satisfaction, personal health, job performance, and turnover intentions were proposed as outcomes of work engagement. Interesting results were found based on the analyses and new ways to view the proposed outcomes were also explored.

Job satisfaction, as characterized by the feelings of enthusiasm and enjoyment about one's work, was significantly related to work engagement. Viewed by many researchers as both a correlate of work engagement and an outcome (Harter et al., 2002; Saks, 2006), satisfaction was found to be significantly related to work engagement in this study. In testing the hypothesis that work engagement predicted job satisfaction, significant results were found for vigor and dedication, but not for absorption. The hypothesis was only partially supported by the data. Although job satisfaction and absorption were significantly related (see Table 2), absorption was not a significant predictor when entered into the equation along with the other work engagement variables. Vigor and especially dedication were stronger predictors of job satisfaction. Satisfaction, often characterized by finding enjoyment and enthusiasm in the work, is similar, if not identical, to items measuring dedication found in the UWES. Vigor which is measured by

items, such as, “when I wake up I feel like going to work” is similar to an item used in this study to measure job satisfaction. The items’ similarities support the relationship between the variables. For absorption, individuals may be absorbed in the work that they do, but that may not lead to satisfaction. In terms of predicting job satisfaction, absorption may be linked more strongly to the traits of the individual than the other engagement variables. For example, workaholics, or individuals who have a compulsion about work, are more likely to be absorbed in the work that they do, not because the job brings them satisfaction, but rather working satisfies a need. Porter (1996) indicates workaholism emphasizes the elements of internal drive and work involvement. Porter suggests that workaholism is “excessive involvement with work evidenced by neglect in other areas of life and based on internal motives of behavior maintenance rather than requirements of the job or organization” (p. 71). The idea of a workaholic helps explain the inability of absorption to predict job satisfaction, by highlighting the fact that there may be certain individual traits within the absorption-satisfaction relationship that are not present in the vigor, dedication, and satisfaction relationships.

The employees’ perception of their personal health was measured using a single item measure. Although perception of health was limited to one item, significant positive results were found between health and all three work engagement variables. When the predictability of work engagement was tested, work engagement was a significant predictor. When all three factors were entered into the equation, only vigor was a significant predictor of personal health. Vigor, as defined by energy, resilience, and perseverance, highlight an individual’s perception of their own health. Generally speaking, if individuals perceive themselves as having high levels of energy as well as being strong despite setbacks, more than likely they will view themselves as being in good health. This was in essence the results found. Once vigor entered into the equation,

dedication and absorption in the job were not predictors of health, they also returned negative betas. The predictability of work engagement and personal health supports studies conducted by Hallberg and Schaufeli (2006). They found that work engagement was related to the lack of health complaints, such as depressive symptoms, somatic complaints, and sleep disturbances. Based on the results, personal health appears to be a positive outcome of work engagement.

In an exploratory examination of the results, the impact of job satisfaction within the work engagement personal health model was also tested. Following the inclusion of job satisfaction, which was also significantly positively related to personal health, vigor remained the significant predictor of health. When the order of entry was reversed with job satisfaction entered first into the equation, satisfaction was returned as a significant predictor of perceptions of health. However, after the work engagement scales were entered into the equation, vigor was again the significant predictor. These results support the idea that a sense of energy and resilience can predict personal health, therefore identifying another benefit of engagement. Identification of health as an outcome of engagement has implications for employees, as well as researchers. This result highlights the positive impact of work on the individual and the need for a candidate to personally identify a job in which they can feel engaged for their own well-being.

The results reviewed in the previous sections suggest there are personal outcomes that can be predicted by work engagement. An individual's level of job satisfaction, as well as his or her perception of personal health, can be predicted by work engagement. Aside from the personal outcomes, there were organizational outcomes of work engagement examined. Job performance and the intent of an individual to leave the organization were hypothesized to be predicted by work engagement.

Support for work engagement predicting job performance was not found. The addition of job satisfaction entered into the equation did not return significant results for the overall model; however, it improved the predictability of vigor on job performance. The lack of significance between the work engagement variables and job performance is contradictory to what researchers, such as Harter et al. (2002), found when they examined business level unit results. The nonsignificant results found in this study may be the result of how job performance was assessed. Job performance was measured at the job title level and differed based on the center at which the job title was located. Without individual level data and variability within a work center for a title, drawing conclusions or predicting performance was difficult. However, job satisfaction was a significant predictor when entered into the equation by itself. Few studies have investigated the ability of work engagement to predict performance; this is an area of research that requires additional investigation with various types of measures of job performance.

Similar to job performance, the results for intention to leave the job in six months was not predicted by work engagement. Although turnover intent was significantly negatively correlated with vigor, the results for the regression analyses did not yield significance. This suggested that there may be more involved with predicting turnover intent than the mere level of energy that individuals have toward their job. Although the nonsignificant results are contrary to proposed models by Vance (2006), Saks (2006), and Hallberg and Schaufeli (2006), the results indicate that further investigation is needed between these variables. In the exploratory analyses conducted to clarify the predictability of engagement on intention to leave, job satisfaction was entered into the model because of the significant correlation between satisfaction and intent to leave. When job satisfaction was entered into the model along with work engagement to explore the impact, the results were still not significant. However, when satisfaction was entered first

into the model, it was the significant predictor of intention to quit. Therefore, this indicates that job satisfaction may also need to be present for work engagement to predict an employee's intention to remain in the job.

### *Limitations*

Although the results of this study have both theoretical and empirical implications, they should be taken with caution. The small number of participants in this study may have had an effect on the results. The limited numbers prevented more extensive model testing from being performed to determine the influence that employee selection and recruitment techniques had on work engagement outcomes. Additionally, the small sample size, more specifically the small number of people who were within the different RJP groups, requires the reader to take those results with caution.

Aside from the size of the RJP groups, the broad conceptualization of what constituted an RJP and how it was received was also a limitation. Participants were asked to recall how they received the information, responding affirmative to either of the methods resulted in placement in the received RJP group. This method limited the possibility of individuals being classified within the group who did not receive an RJP. The chance of finding differences between the groups, where therefore reduced.

Another limitation of this study was the use of a self-report item to measure personal health. Self-report measures can report inflated ratings because of social desirability. Utilizing multiple methods to measure personal health (e.g., biomedical measures of health) may also be appropriate to get an accurate measure of an individual's health (Fleishman & Zuvekas, 2007; Leung, Luo, So, & Quan, 2007).

While the use of single item measures reduces the time for a participant to complete the survey, it also decreases the potential reliability of a measure (Gardner, Cummings, Dunham, & Pierce, 1998; Wanous, Reichers, & Hudy, 1997). Multiple items measuring personal health and turnover intentions would be helpful to elaborate on the findings.

The last limitation of the study was the operational definition of job performance. Job performance was measured by the job title service level. Although the job title service level was likely a reliable measure of performance, use of individual performance level data with variability would likely have helped to demonstrate the predictability of work engagement on job performance.

In summary, the above limitations indicate the need for future research to be conducted on the impacts of employee selection, on work engagement and the outcomes. Additionally, the limitations suggest that a larger sample measuring the same constructs should be obtained. With a larger sample it would make it possible to generalize the results and test the model utilizing more advanced statistical techniques (e.g., structural equation modeling) (Byrne, 1998; Tabachnick & Fidell, 1996).

#### *Future Directions and Organizational Implications*

The significant relationship between job tenure and work engagement reported in this study, point to the need to better understand how work engagement functions over time. Future research should focus on various stages or periods of time (e.g., three months, six months, one year) and obtain measures of work engagement. Testing work engagement over time would answer questions about how engagement fluctuates across different periods. Additionally a longitudinal study may help partial out the state and trait concepts inherent in work engagement (Macey & Schneider, in press). Lastly, a longitudinal study of work engagement would highlight



other aspects that predict work engagement and would provide insight into other individual and organizational outcomes.

An individual outcome of engagement that should be studied over time is personal health. Further investigation of personal health would help identify whether the long term effects of an individual who is engaged lead to personal health or whether there is a reciprocal relationship between the two variables.

Another individual outcome worth investigating is job satisfaction and the interaction it has with work engagement. Based on the correlations presented in Table 2, the concepts are related. They have similar correlations with other variables as well. The results found through the regression analyses point to the need to further investigate the nature of the relationship between job satisfaction and engagement. The question of mediation, as well as if job satisfaction is a necessary component of work engagement, is a question worth further investigation (Macey & Schneider, in press). Additionally, other measures of engagement (e.g., Harter et al., 2002; Saks, 2006) should be used to determine whether the results of job satisfaction mediating the effects of work engagement on outcomes can be replicated.

An organizational outcome that should be investigated further is Organizational Citizenship Behaviors (OCBs). Saks (2006) found significant relationships between job engagement, and OCBs toward individuals and the organization, further identifying a benefit to organizations of having engaged employees. Research replicating Saks' findings, utilizing the UWES, would help to differentiate work engagement from other similar psychological constructs. Also, investigating OCBs and work engagement would increase the understanding of the organizational benefits of engaged employees.

Future research should also investigate how work environment may influence and/or interact with work engagement. This study investigated work engagement within a call center environment and utilized call center metrics to measure performance. Were the results found in this study limited to call centers? Can significant results be found for the predictability of work engagement on job performance in other work environments? These are important questions to answer. Although Harter et al. (2002) found results for work engagement and unit level performance, can those results be generalized to different work settings and at the individual level?

Lastly, although not exhaustive of future studies, further attention should be given to how human resources practices, such as employee selection and recruitment techniques, lead to work engagement. In this study, significant relationships were found between receipt of the RJP and work engagement, as well as the role play. Further studies should be done to identify test types (e.g., cognitive ability, personality) that may predict work engagement (Shraga & Shirom, 2007). Also, examining predictability of test scores (e.g., higher or lower test scores) and not just whether the test was received would be beneficial.

Although there are limitations of this study, there are organizational implications of the results. The different engagement levels found between employees receiving and not receiving RJP were promising for the techniques that organizations use to recruit employees. Presenting prospective employees with RJP, not only provides the opportunities for candidates to determine whether they fit within the organization, but it also may lead the candidates who do decide to move forward through the selection process to demonstrate higher levels of engagement (Phillips, 1998; Premack & Wanous, 1985). RJP can be easily developed and

implemented with little organizational costs; however, there are potentially additional benefits associated with employees being dedicated and absorbed in their work.

In addition to the benefits of the recruitment techniques used on work engagement, the selection test utilized can also have an impact on engagement. Although the differences found between role play groups were strongly linked to the job tenure of the employee, the result points to the need for engagement to be considered in the selection process. The role play may not have proven to be the best test to use if the goal was to increase work engagement. There may be other tests that will have a greater impact on engagement. Shraga and Shirom (2007) found significant relationships with personality variables and vigor. Tests focusing on individuals' personalities may also assist with selecting individuals who will likely be engaged within the job.

Aside from the benefits of identifying potentially engaged employees through selection and recruitment systems, there is also the possibility of reducing employee health benefit costs. If organizations look for individuals who are more likely to be engaged, they may also identify individuals who are healthier. This outcome of engagement would be a benefit that would impact the operation costs of organizations.

## Conclusion

The goal of this study was to investigate the effect employee selection and recruitment practices had on work engagement. Several researchers proposed employee engagement in the workplace (Kahn, 1990; Maslach, 1998). Other researchers identified engagement as a phenomenon occurring in the workplace (Harter et al., 2002; Salanova, Agut, & Peiro, 2005; Schaufeli & Salanova, 2005; Shirom, 2004). As the body of work increased, researchers also identified common antecedents and consequences of engagement (e.g., Saks, 2006). Few if any

studies looked at how employees were recruited and selected and the impact those human resources practices have on work engagement. The strength of this study is the identification that what is done before employees are hired and how the employees are selected into the organization matters. Although additional research should be conducted to determine how much of an impact various selection methods have on engagement, organizational practices beyond job design matter.

Additionally, the results highlighted the need for more research on work engagement models. As the body of work increases with regard to work engagement, the proposed models of engagement will begin to include more complex relationships between engagement and antecedents and outcomes (e.g., reciprocal, recursive). Although personality was not a factor included in this study, it is one that shows great promise. From research on vigor and personality by Shrager and Shirom (2007), the individual is a variable that is commonly left out of the equation. Much like the original conceptualization of job burnout, engagement is still primarily viewed as a state concept. As further investigation of work engagement is conducted the individual will begin to play a larger role (Macey & Schneider, 2007). This body of work suggests that state concepts are important (e.g., length of time on the job). However there are still variables that should be investigated that may account for some of the variance remaining within work engagement.

An additional strength of this work is the connection between personal health and engagement. The results found for the relationship between health and work engagement support results found in previous studies (e.g., Hallberg & Schaufeli, 2006). This work adds personal health to the list of benefits of having employees who are engaged in their work.

The organizational outcomes studied did not yield significant results as predicted, which is contradictory to other studies conducted (e.g., Harter et al., 2002). The better predictor of the organizational outcomes was job satisfaction. This result further identifies interactions of variables that are still unknown. Truly the results point to the need for further research on work engagement to determine whether this is an older concept repackaged and marketed to executives (i.e., job satisfaction), or whether the concept of engagement is more complicated than previous theories of work motivation, satisfaction, person-job fit, and performance. If engagement is truly a new concept, with the supported benefits identified in previous studies, it is time to look at engagement as a complete model, and include the full cycle of the employee, from recruitment to the individual and organizational outcomes.

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## Figures and Tables

Figure 1: Proposed Conceptual Model of Work Engagement

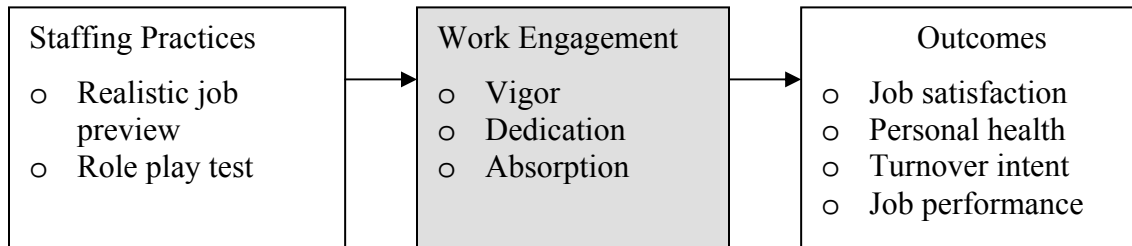


Table 1: Frequencies and Percentages for Gender, Age, Race, Job Title and Call Center Location

	F	%
<i>Gender</i>		
1. Female	28	17.4%
2. Male	133	82.6%
Total Number	161	100.0%
<i>Age</i>		
3. 18-25	18	11.2%
4. 26-35	67	41.6%
5. 36-49	58	36.0%
6. 50 and Above	18	11.2%
Total Number	161	100%
<i>Race</i>		
7. African	41	25.5%
8. Caucasian/White	75	46.6%
9. Asian	11	6.8%
10. Hispanic	19	11.8%
11. Native American	1	0.6%
12. Alaskan Native	0	0
13. Pacific Islander	0	0
14. Two or more	12	7.5%
15. Missing	2	1.2%
Total Number	161	100%
<i>Job title</i>		
16. Job Title 1	84	52.2%
17. Job Title 2	77	47.8%
Total Number	161	100%
<i>Work location</i>		
18. California Center	46	28.6%
19. Texas Center	46	28.6%
20. Virginia Center	69	42.9%
Total Number	161	100.0%

Table 2: Means, Standard Deviations, Reliability Estimates and Correlation Coefficients for all variables.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Vigor	3.91	0.99	(.84)									
2. Dedication	3.96	1.10	.82*	(.85)								
3. Absorption	3.44	0.90	.64*	.64*	(.70)							
4. Job Satisfaction	3.49	0.87	.74*	.77*	.51*	(.89)						
5. Personal Health	3.61	0.99	.49*	.32*	.20*	.30*	(xx)					
6. Job Tenure	15.26	9.77	-.21*	-.25*	-.15	-.31*	-.17*	(xx)				
7. Job Performance	72.97	9.36	.03	.10	.11	.17*	-.02	-.08	(xx)			
8. Turnover Intent	0.22	0.41	-.16*	-.11	-.14	-.19*	-.13	.22*	.02	(xx)		
9. RJP	0.91	0.28	.15	.24*	.17*	.27*	.03	.12	.06	.16*	(xx)	
10. Role Play Test	0.41	0.49	.11	.16*	.12	.25*	.06	-.43*	.60*	-.06	.03	(xx)

*N=161, p<.05*

*Reliabilities coefficients are in the diagonal.*

*Turnover intention is coded 0, no intention to leave in 6 months, 1, yes intend to leave in 6 months.*

*RJP = Realistic Job Preview is coded 0, did not receive a RJP, 1 did receive a RJP*

*Role Play Test is coded 0, did not receive the role play, 1 did receive the role play*

Table 3: ANOVA Age and Job Tenure by RJP Group

Source		SS	df	MS	F	p
Age (in years)	Between Groups	0.45	1	0.45	0.64	0.43
	Within Groups	111.68	159	0.70		
	Total	112.12	160			
Job Tenure (in Months)	Between Groups	216.88	1	216.88	2.29	0.13
	Within Groups	15044.17	159	94.62		
	Total	15261.04	160			

*Note: N = 161, values significant to \*p <.05*



Table 4: ANOVA Vigor, Dedication, and Absorption by RJP

Source	Dependent Variable	SS	df	MS	F	p
RJP	Vigor	3.42	1	3.42	3.57	0.06
	Dedication	10.54	1	10.54	9.27	0.00
	Absorption	3.48	1	3.48	4.43	0.04
Error	Vigor	152.47	159	0.96		
	Dedication	180.77	159	1.14		
	Absorption	125.20	159	0.79		
Total	Vigor	2621.11	161			
	Dedication	2713.20	161			
	Absorption	2035.00	161			

*Note: N = 161, p < .05, Vigor Adjusted R Squared = .02, Dedication Adjusted R Squared = .05, Absorption Adjusted R Squared = .02*

Table 5: ANOVA Age and Job Tenure by Role Play Test Group

		SS	df	MS	F	p
Age (in years)	Between Groups	1.31	1	1.31	1.89	0.17
	Within Groups	110.81	159	0.70		
	Total	112.12	160			
Job Tenure (in months)	Between Groups	2868.25	1	2868.25	36.80*	0.00
	Within Groups	12392.80	159	77.94		
	Total	15261.04	160			

*Note: N = 161, values significant to \*p < .05*

Table 6: ANCOVA Vigor, Dedication, and Absorption by Role Play Test Group with Job Tenure as a covariate

Source	Dependent Variable	SS	df	M S	F	p	Partial Eta Squared
Job Tenure (covariate)	Vigor	4.96	1	4.96	5.25	0.02	0.03
	Dedication	7.38	1	7.38	6.52	0.01	0.04
	Absorption	0.66	1	0.66	0.83	0.36	0.01
Role Play	Vigor	0.05	1	0.05	0.05	0.82	0.00
	Dedication	0.71	1	0.71	0.63	0.43	0.00
	Absorption	0.74	1	0.74	0.93	0.34	0.01
Error	Vigor	149.19	158	0.94			
	Dedication	178.91	158	1.13			
	Absorption	126.22	158	0.80			
Total	Vigor	2621.11	161				
	Dedication	2713.20	161				
	Absorption	2035.00	161				

*Note: N = 161, values significant to  $p < .05$ . Vigor Adjusted R Squared = .03, Dedication Adjusted R Squared = .05, Absorption Adjusted R Squared = .01*

Table 7: Hierarchical Regression of Work Engagement on Job Satisfaction

Variables	$\beta$	t	R <sup>2</sup>
Step 1			0.578*
Vigor	0.36	3.64*	
Dedication	0.47	5.24*	
Absorption	-0.01	-0.15	

*Note: N = 161, values significant to \*p < .05*

Table 8: Mediation of Work Engagement on Personal Health by Job Satisfaction

Variables	$\beta$	t	R <sup>2</sup>
Step 1			0.26*
Vigor	0.74	6.01*	
Dedication	-0.21	-1.81	
Absorption	-0.13	-1.45	
Step 2			0.26
Vigor	0.74	5.75*	
Dedication	-0.21	-1.66	
Absorption	-0.13	-1.45	
JS	0.00	0.01	

*Note: N = 161, values significant to \*p <.05, JS – Job Satisfaction*

Table 9: Hierarchical Regression of Work Engagement on Personal Health

Variables	$\beta$	t	R <sup>2</sup>
Step 1			0.09*
JS	0.29	3.92*	
Step 2			0.26*
JS	0.00	0.01	
Vigor	0.74	5.75*	
Dedication	-0.21	-1.66	
Absorption	-0.13	-1.45	

*Note: N = 161, values significant to \*p <.05, JS – Job Satisfaction*

Table 10: Hierarchical Regression of Work Engagement on Job Performance with Job Satisfaction

Variables	$\beta$	t	R <sup>2</sup>
Step 1			0.03
Vigor	-0.22	-1.55	
Dedication	0.25	1.85	
Absorption	0.07	0.66	
Step 2			0.05
Vigor	-0.29	-2.02*	
Dedication	0.15	1.00	
Absorption	0.07	0.69	
JS	0.22	1.86	

*Note: N = 161, values significant to  $p < .05$ , JS – Job Satisfaction*

Table 11: Hierarchical Regression of Work Engagement on Job Performance

Variables	$\beta$	t	R <sup>2</sup>
Step 1			0.03*
JS	0.16	2.03*	
Step 2			0.05
JS	0.22	1.86	
Vigor	-0.29	- 2.02*	
Dedication	0.15	1.00	
Absorption	0.07	0.69	

*Note: N = 161, values significant to  $p < .05$ , JS – Job Satisfaction*

Table 12: Mediation of Work Engagement on Intention to quit with Job Satisfaction

Variables	$\beta$	t	R <sup>2</sup>
Step 1			0.03
Vigor	-0.18	-1.26	
Dedication	0.09	0.59	
Absorption	-0.08	-0.76	
Step 2			0.05
Vigor	-0.11	-0.74	
Dedication	0.19	1.22	
Absorption	-0.09	-0.83	
JS	-0.21	-1.61	

*Note: N = 161, values significant to \*p < .05, JS – Job Satisfaction*

Table 13: Hierarchical Regression of Work Engagement on Intention to quit

Variables	$\beta$	t	R <sup>2</sup>
Step 1			0.03*
JS	-0.19	-2.36*	
Step 2			0.05
JS	-0.21	-1.61	
Vigor	-0.11	-0.74	
Dedication	0.19	1.22	
Absorption	-0.09	-0.83	

*Note: N = 161, values significant to \*p < .05, JS – Job Satisfaction*

## Appendix A



## Questionnaire

Thank you for agreeing to participate in this questionnaire. This questionnaire is designed to evaluate recruitment and selection practices within the organization. Participation is voluntary and you may quit at any time during the survey. Your participation will not impact your employment status in anyway. This study is for research purposes only.

By completing this questionnaire you consent to the release of your performance data to the researcher. Your responses on the questionnaire will be kept confidential and no identifying information will be shared with the organization.

Please read each question carefully and answer honestly.

If you have any questions regarding the survey or this research study please feel free to contact:

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**Manhattan, KS 66505**  
[downey@ksu.edu](mailto:downey@ksu.edu)  
**(785)532-5475**

**Dr. Rick Scheidt,**  
**IRB Chairman**  
**203 Fairchild Hall, KSU,**  
**Manhattan, KS 66506**  
**(785)532-3224**

**Thank you again for your participation.**

**Section 1** Please provide the information requested, or place a check mark in the appropriate spaces.

Gender: Male \_\_\_\_\_ Female \_\_\_\_\_

Age: 18 - 25      26 – 35      36 – 50      51 and above

Race: African American \_\_\_\_\_ White \_\_\_\_\_  
Asian American \_\_\_\_\_ Hispanic American \_\_\_\_\_  
Native American \_\_\_\_\_ Alaskan Native \_\_\_\_\_  
Pacific Islander \_\_\_\_\_ Other \_\_\_\_\_

1. Current Job title: \_\_\_\_\_

2. Current work location: \_\_\_\_\_

3. Date hired into the position: \_\_\_\_\_ (MM/YYYY)

4. How long have you worked for this company?      Years \_\_\_\_\_ Months \_\_\_\_\_

5. When you were hired for the position, do you recall the tests that you took?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

6. If yes, please indicate below: \_\_\_\_\_

7. If you answered Yes to item 6, what were your impressions of the tests used? (please circle one response)

1	2	3	4	5
Extremely unfavorable	Unfavorable	Neither favorable or unfavorable	Somewhat favorable	Extremely favorable

8. When you were hired were you provided specific information about the job and the company? \_\_\_\_\_ Yes \_\_\_\_\_ No

9. Did you receive a realistic preview about the job? \_\_\_\_\_ Yes \_\_\_\_\_ No

Please provide the below information so we can contact you if we have questions about the information.

10. Name \_\_\_\_\_

11. Work telephone number ( ) \_\_\_\_\_

## Section 2

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write "0" (zero) in the space preceding the statement. If you have had this feeling, indicate how often you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way.

0	Almost never	Rarely	Sometimes	Often	Very often	Always
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. \_\_\_\_\_ At my work, I feel that I am bursting with energy\* (VII)
2. \_\_\_\_\_ I find the work that I do full of meaning and purpose (DE1)
3. \_\_\_\_\_ Time flies when I'm working (AB1)
4. \_\_\_\_\_ At my job, I feel strong and vigorous (VI2)\*
5. \_\_\_\_\_ I am enthusiastic about my job (DE2)\*
6. \_\_\_\_\_ When I am working, I forget everything else around me (AB2)
7. \_\_\_\_\_ My job inspires me (DE3)\*
8. \_\_\_\_\_ When I get up in the morning, I feel like going to work (VI3)\*
9. \_\_\_\_\_ I feel happy when I am working intensely (AB3)\*
10. \_\_\_\_\_ I am proud of the work that I do (DE4)\*
11. \_\_\_\_\_ I am immersed in my work (AB4)\*
12. \_\_\_\_\_ I can continue working for very long periods at a time (VI4)
13. \_\_\_\_\_ To me, my job is challenging (DE5)
14. \_\_\_\_\_ I get carried away when I'm working (AB5)\*
15. \_\_\_\_\_ At my job, I am very resilient, mentally (VI5)
16. \_\_\_\_\_ It is difficult to detach myself from my job (AB6)
17. \_\_\_\_\_ At my work I always persevere, even when things do not go well (VI6)

### Section 3

1. I intend to leave my position within the next six months.      Yes \_\_\_\_\_ No \_\_\_\_\_
2. I have thoughts of leaving my job.                                      Yes \_\_\_\_\_ No \_\_\_\_\_
3. I frequently search for new jobs.    Yes \_\_\_\_\_ No \_\_\_\_\_

### Section 4

The following set of questions refers to your overall satisfaction with your job. Please select the number that best describes your agreement, or disagreement with the following statements:

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Disagree nor Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
<b>1</b>	1	2	3	4	5
<b>I feel fairly well satisfied with my present job.</b>					
<b>2</b>	1	2	3	4	5
<b>Most days I am enthusiastic about my work</b>					
<b>3</b>	1	2	3	4	5
<b>Each day of work seems like it will never end.</b>					
<b>4</b>	1	2	3	4	5
<b>I find real enjoyment in my work.</b>					
<b>5</b>	1	2	3	4	5
<b>I consider my job rather unpleasant</b>					

**Section 5** Using the following scale, circle the number that best represents your views about your health. Please answer the question as honestly as you can.

1. In general, would you say your health is:

1  
Poor

2  
Fair

3  
Good

4  
Very Good

5  
Excellent

*End of Questionnaire*

***THANKS FOR YOUR PARTICIPATION!***

## Appendix B

Dear [Employee Name],

As part of a study reviewing selection techniques utilized at your company, we are investigating the benefits of how employees have been selected. Below is a link to the survey that will ask you questions regarding the tests that you took to become qualified for the position that you currently hold. Your responses to the questions will be kept confidential and will only be viewed at the individual level by the researcher. In addition information regarding your performance within training for this position as well as sales quota data will be obtained and used to provide further support for the selection tests. Only a summary of the results will be provided to the executive team of your organization, information about you specifically will not be included.

Please complete the survey by \_\_\_\_\_ at \_\_\_\_\_. The survey will only take 15 minutes to complete. Please click on the link to go to the survey or copy and paste the link into the address field of your web browser.

[Survey Link]

If you have any questions regarding this study please feel free to contact me at any time.

Thank you.

David S. Gill



## Appendix C

Follow-up email

Dear [Employee Name]

Thank you for your participation in this survey. Your specific responses to each question will only be viewed by the researcher and not shared with anyone else. The survey you completed will help identify the most effective methods for selecting and hiring employees.

If you have any questions regarding the content of the survey please do not hesitate to contact me.

Sincerely,

David S. Gill