2020

# The Impact Of Occupational Self-Efficacy On Job Performance

Kaeley A. Tener
*Indiana State University*

# The Impact Of Occupational Self-Efficacy On Job Performance

A Thesis

Presented to

The Department of Human Resources Development and Performance Technology

Indiana State University

Terre Haute, Indiana

In Partial Fulfillment of the Requirements

for a Master of Science Degree

Human Resource Development

By

Kaeley A. Tener

August 2020

Keywords: occupational self-efficacy, workplace development, HR practitioners, job performance

COMMITTEE MEMBERS

Committee Chair: Dr. Cindy L. Crowder, Ph.D.

Professor of Human Resource Development and Performance Technologies

Indiana State University

Committee Member: Dr. Szufang Chuang, Ph.D.

Chair and Assistant Professor of Human Resource Development and Performance Technologies

Indiana State University

Committee Member: Dr. Carroll Graham, Ph.D.

Professor of Human Resource Development and Performance Technologies

Indiana State University

## ABSTRACT

From business-related literature, the occupational-self efficacy (OSE) theory has been used to explain employee confidence, motivation, success, or lack of success when used in conjunction with measurable training or evaluation. The presence and effects of OSE have been seen in various occupational sectors and industries. For Human Resources practitioners, utilizing the concepts of OSE in the workforce is more than just training or communication. The present study analyzed the presence and effects of OSE on an online student population at a technical college in a Midwestern University. The results from frequency, correlation, and cross-tabulation tests reveal that levels of OSE can change, that demographic variables such as age and gender can influence OSE growth, and there is significance with OSE and job performance. The present study identified various training techniques and research possibilities for Human Resource (HR) personnel. The results may aid HR personnel with growing employee confidence, motivation, and measurable growth in knowledge, skills, and abilities (KSAs), training, and evaluations.



*Keywords*: occupational self-efficacy, workplace development, HR practitioners, job performance

## ACKNOWLEDGEMENTS

To my professors, Dr. Crowder and Dr. Graham, thank you for being sources of encouragement and wisdom during my progress. Your aid has been invaluable in helping me grow and mature as a professional, and I'll be forever in your debt. To my advisor, Dr. Chuang, thank you for listening to me rant and pushing me to the finish line; your enthusiasm and advice have greatly encouraged and inspired me to push to further lengths than I would have dared on my own.

To my family, thank you for being encouraging for when I changed careers and started on this journey to HR. To my siblings, thank you for the reassurance to keep going, even if the process was tough and I wanted to quit. To my parents, who motivated me to keep reaching for a better life, thank you. To the rest of my family, thanks for the inspiration; if my aunt and grandma could get their master's degrees, so can I.

To my husband, who never let me quit, who pushed me to keep going, to encourage me when I needed it; thanks, buddy. Your strength and support can never be measured in words. The most I can hope is that this task helps our dreams come true.

To my Heavenly Father, Lord of Hosts- You gave me a great opportunity to fulfil a dream that I thought was lost long ago. Your grace and strength have been comforting on my darkest days; thank You for providing all the way through this journey.

## TABLE OF CONTENTS

### Table of Contents

## LIST OF TABLES

# CHAPTER 1

## INTRODUCTION

Various training and development strategies within the Human Resource (HR) field are utilized in the workplace and created through the use and adaptation of numerous business and psychological concepts. Many of these strategies involve interactions with employees and management. However, employee development is often measured by increased efficiency in newly-learned knowledge, skills, and abilities (KSAs), particularly when connected to training outcomes (Çetin & Aşkun, 2018). However, some HR specialists consider KSAs as only part of employee growth, knowing that an employee's growth stems from self-efficacy and inner motivation. For management and supervisors, the concepts of self-efficacy and inner motivation growth are vaguely perceived, generally seen through measurable skill growth (Byars-Winston et al., 2017). In order to aid employee growth, HR practitioners must be able to explain and apply occupational self-efficacy (OSE) as a factor influencing further employee growth. The concept of OSE is used to explain an employee's self-belief when fulfilling tasks or requirements necessary for job success. OSE has been studied by various scientific researchers and practitioners for many years (Byars-Winston et al., 2017; Çetin & Aşkun, 2018; Cherian & Jacob, 2013) and used in conjunction with measurable applications for reliable training and career development (Spurk & Abele, 2014).

The various concepts related to OSE have been connected to training, motivation, career advancement (Abele & Spurk, 2009), employee engagement (Chaudhary et al., 2013), and job satisfaction (Hwang et al., 2016). Studying the employee's OSE and behavior as well as

measuring their KSAs for improvement, can be an effective training strategy when creating new training (Loomba & Karsten, 2019). An employee's decisions to improve are integral to his or her career and job growth; improving the employee's growth enhances the employee's performance and engagement as well as the organization's growth (Consiglio et al., 2016).

Much of the research performed on self-efficacy concepts in the last ten years focused on leaders and entrepreneurs, who are sufficiently self-motivated for their given ranks and positions within an organization (Drnovšek et al., 2010). Various studies over the connection between OSE and improved employee performance have been conducted in business (Seo & Ilies, 2009), higher education (Sheu, Lent, Miller, Penn, Cusick, & Truong, 2018), and manufacturing and service industries (Chaudhary et al., 2012). As a whole, these studies focus on improved OSE when connected to measured employee individual performance (Germain & Grenier, 2015) as well as increased job satisfaction (Hwang et al., 2016).

Organizations that focus on training employees generally do so for organizational needs (Cherian & Jacob, 2013). For example, organizations that manage their employees' progress and measured success can lose money and time with an ignorant employee. Even if the employee is trained to do a specific task, the lack of training and the time spent correcting errors costs more than the initial training (Cherian & Jacob, 2013). Most job instructions will be basic and reparative for specific tasks, which does not allow for individual choice for employees for training or control of further career growth. As most individual training is received from leaders and team members (Yoon & Kayes, 2016), the trainees learn just enough to satisfy the measurements of their leaders and team members for successful task completion. Many trained employees feel micromanaged when forced to take new training, which can lead to cynicism (Khalid, 2018) or deviant behavior if problems are severe enough (Shantz, Alfes,& Latham.,

2016). This cynicism and poor behavior leads to a loss of interest in new training, and must be addressed before training results can improve (Khalid, 2018). Such behavior does not help the employee improve through the employee's choice, but only through the choice of the organization.

To emphasize employee growth, most research only shows the connection to employee growth within the organization, with training as the first step to address employee KSA weakness and growth (Füllemann et al., 2015). Understanding how OSE concepts can be applied will be useful for HR personnel to address training and performance issues (Hwang et al., 2016), particularly when addressing these issues can increase employees' OSE and job satisfaction levels. By analyzing and solving of training problems, HR personnel can aid employees in growing OSE levels. If employees' OSE knowledge grows, their job satisfaction will increase as well (Hwang et al., 2016). When empowered to choose their own learning initiatives and areas of improvement (Jungert et al., 2013), employees can learn and apply new skills. Using OSE concepts can help the HR employee mediate the organization's needs for continually-improving employees (Jungert et al., 2013). In fact, the OSE concepts can also help HR personnel address issues of distrust and rebuild trust for improved performance (Khalid, 2018).

## Rationale of the Study

Most HR practitioners are told to train employees based on the organization's needs and not employees' needs (Shantz et al., 2016). For the employees under these HR practitioners, organizationally-required training is part of their work tasks, and employee perceptions of OSE growth is connected to their professional improvement with KSAs. For HR practitioners to be aware of successful training and evaluation, they must observe how well the employees succeed with training. HR employees can see the reality of how their training and evaluation practices

affect the employees of their organization, and not just what the organization wants the employees to learn. For such practitioners, analyzing OSE concepts and their connections to job performance shows new thinking and ideas for future training and evaluation for employees.

## Research Gap

Although there is limited literature to support employee OSE growth (Schwoerer, May, Hollensbe, & Mencl, 2005), the results show training and learning is positive (Yoon, Han, Sung, & Cho, 2018). Previous research indicates that most OSE-related training is given to upper-level employees, such as management (Chaudhary et al., 2012), or groups and team members (Black et al., 2019). The research implemented on training containing OSE concepts tends to be limited with lower-level employees.

## Purpose Statement and Significance Statement

This research sought to investigate the existence, extent, and effectiveness of OSE used in the workplace, as well as how OSE concepts affect employees' job performance. The research outcomes will help HR professionals to better understand different types of employees by aiding work effort, communicating positive mental health and workable goals, and encouraging self-growth and OSE levels for future measurable success (Germain & Grenier, 2015). OSE levels are also illustrated in an employee's confidence or motivation, which are gauged by employee self-perceptions as well as coworker and supervisor perceptions. Employee self-perceptions are not only affected by KSA growth but also by other factors. Studying how OSE levels influence job performance, particularly in measurable ways, will reveal deeper issues that may cause poor employee behavior or work results. The issues and solutions may not involve past KSA weaknesses, although training may be one solution to correcting workforce development deficiencies. Understanding where the results caused problems for employees, as well as how

those problems were solved, will aid the HR practitioner in developing better skilled and engaged employees.

For the purpose of research, three research questions were created to guide the study:

1. How do OSE levels of the participants differ?
2. How do demographic variables influence the level of OSE?
3. What is the relationship between OSE and job performance?

## Limitations

This study focused on how OSE concepts affect full-time and part-time employees. Thus, the sample, based on limited times and resources, was taken for convenience. All participants will be university students enrolled in online degree programs from one academic college within a Midwestern university. These students may be drawn for the larger population of full-time and part-time employees, as many students who study online also work.

## Definitions of Terms

- Self-efficacy: "…An individual's beliefs about their capabilities to produce at designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 71).
- Occupational self-efficacy: "…the belief in one's ability and competence to perform in an occupation" (Chaudhary, et al., 2012, p. 90).
- Social cognition theory: "[where] sociostructural factors operate through psychological mechanisms of the self system to produce behavioral effects" (Bandura, 2001, p. 15).

# CHAPTER TWO

# LITERATURE REVIEW

Occupational self-efficacy (OSE) is a concept used to explain how an employee can build self-beliefs based on the success of fulfilling necessary job tasks. Chen and Kao (2011) found that the focus of OSE is generally tied to the employee. OSE has been a well-discussed subject in various fields, such as education (Sheu et al., 2018), medicine (McKee, Allen, & Tamez., 2014), security (Kao, 2017), and social work (Holden et al., 2017). Çetin & Aşkun (2018) indicated a gap on the impact of OSE on employee levels. For example, Jungert et al. (2013) showed that lower-level employees only receive training with OSE concepts as needed, compared to (team) leaders in the organization. Because employees would benefit from OSE training, particularly when such subordinate-level employees desire and strive for promotion in their organization (Jiang et al., 2018), providing such training would help these employees. To better help the employee, the HR practitioner must understand the concept of OSE and improve employee performance through OSE development, as well as aid further employee confidence. Negative effects surrounding OSE include a lack of leader accountability and motivation. Providing an understanding of OSE will aid the HR practitioner's knowledge for later application of employee growth through training or other measures.

## Self-Efficacy

Bandura's (1994) focus on self-efficacy has been widely used to define it as "…an individual's beliefs about their capabilities to produce at designated levels of performance that exercise influence over events that affect their lives" (p. 71). This definition has expanded to

include concepts such as as “mastery experiences”, being able to master one’s environment as needed for specific circumstances, and “social persuasion”, which allows one to help convince others to change roles or skills (Bandura, 1994, p. 72). His definition of self-efficacy is the most recognized of all self-efficacy definitions, as it remains the most popular and recognized. Self-efficacy was also incorporated into Bandura’s theory of social cognitive behavior (Lyons & Bandura, 2018). Other research indicates positive relationships between self-efficacy, motivation, and work performance of employees (Cherian & Jacob, 2013). Continued self-efficacy growth is also generally connected to intrinsic self-motivation. Continually increasing intrinsic self-motivation can also lead to organizational growth (Çetin & Aşkun, 2018). In this case, self-perception is paramount to understanding this phenomenon; the more an employee feels that he or she can do the task, the easier the task seems (Jani, 2011). Various studies showed that self-efficacy, goal awareness, and goal fulfillment are necessary for consistent successes, particularly when connected to future training, feedback, and job satisfaction (Hwang et al., 2016; Kao, 2017). Therefore, an employee’s perception of work and training success, particularly from day-to-day, fits into their levels of self-efficacy and confidence.

However, the concept of self-efficacy is not all-applicable to all work performance scenarios; making decisions or solving problems requires different sets of knowledge, skills, and abilities (KSAs) (Loomba & Karsten, 2019). If the employee loses the ability to choose portions of the training, having to take all training as required by the organization, self-efficacy levels are lessened (Malik, Butt, & Choi, 2105). For employees, growing levels of both work and task improvements, particularly if measured, are a consistent help to the employees’ organizations (Spurk & Abele, 2014). Such shared growth of increased self-efficacy and KSAs further

contributed to aiding employee career growth options (Abele & Spurk, 2009). These growth levels should be discussed with HR personnel for further employee improvement.

## Occupational Self-Efficacy

Occupational self-efficacy (OSE) is used to define self-efficacy when applied in the workplace in some way, shape, or form: it is most often connected to employees. According to Schyns and Sczesny (2010), OSE is "… a person's conviction that he/she can execute behaviors relevant to their [sic] own work" (p.79). The levels of OSE and knowledge can be transferred in training when used with any type of job, task, or occupation (Spurk & Abele, 2014). In order to help employees improve OSE levels, something which is generally unmeasurable, HR personnel must focus on improving measurable KSA performance (Cherian & Jacob, 2013). Present knowledge of OSE involves Lyons and Bandura's (2018) addition of at the use of "observation of role models", which connects an employee's learning to watching experienced employees (p. 1). Providing training (including the use of OSE-related concepts) addresses self-confidence issues and could support employee growth for career development (Jiang et al., 2018). OSE-related growth is not just formed by self-confidence through successful task completion, but also can form from various employees' personalities and specific character traits (Kim & Park, 2017). Improving OSE-related knowledge will also help when establishing and calming trust issues between disgruntled employees and the organization (Khalid, 2018), as consistently improving employees' occupational growth directly aids the organization's growth as well (Loomba & Karsten, 2019).

### Positive Effects of Occupational Self-Efficacy

For employees, the presence of OSE serves many roles. Highly motivated individuals employ OSE concepts for occupational success and overall creativity (Ahlin et al., 2014). If

training is new and connects to their old training concepts, OSE levels raise, which will lift self-confidence levels (Iqbal & Dastgeer, 2017). These employees exhibit increased self-confidence in their work, and their work engagement is measurably stronger than those with lower work engagement (Chaudhary et al., 2013). Highly engaged employees can also gain the trust of companies, as well as improving their allegiances for long-term job success and tenure (Jiang et al., 2018). High OSE levels also lead to increased job satisfaction (Schyns & Sczeny, 2010) and positive work attitudes (Khalid, 2018).

Employee relationships are also helpful for improved OSE growth. For example, those who work with encouraging leaders improve their overall levels of OSE (Gregersen et al., 2014). In a team setting, employees with low OSE levels can improve their growth because the team provides accountability and emotional stability for all team members (Black et al., 2019). That support also improves job focus and levels of morale, which also feeds into signs of OSE (Black et al., 2019). OSE serves many roles for the modern employee.

Other positive effects of OSE for employees include improving internal self-control and self-confidence growth, as well as growing personal trust in self-set goals (Lyons & Bandura, 2018). High internal motivation helps highly-motivated employees improve, as they do not feel forced to learn new KSAs or those that supplement earlier training (Iqbal & Dastgeer, 2017). For most employees, self-belief and self-confidence are integral to these employees' day-to-day lives in the workplace, and if they believe that they will do well on the job, their actions show success (Iqbal & Dastgeer, 2017). Even when an employee improves, based on leader or team-led efforts, strong OSE appears to bolster the employee's self-confidence in an otherwise unsupportive environment (Kammeyer-Mueller et al., 2013). Such growth feeds into an employee's decisions to stay at a workplace (De Clercq et al., 2019) and build better

relationships with all peers and leaders (Khalid, 2018). Strong OSE levels can also be used to successfully bypass workplace ostracism behaviors (De Clercq et al., 2019). The connection of an employee to an organization, such as with employee engagement, does improve with strong OSE (Chaudhary et al., 2013), and there have been successful training results in studies when self-efficacy concepts are attached (Loomba & Karsten, 2019). Various studies illustrate how raising OSE and motivation levels adds value to new training and the transfer of old skills to new training (Kao, 2017; Renta-Davids, Jiménez-González, Fandos-Garrido & González-Soto, 2014) when applied. The presence of OSE is conducive to an improved workplace environment, positively affecting employee engagement, holistic employee perceptions, improved task and role completion, and overall saved time (Consiglio et al., 2016). Therefore, training employees with OSE concepts does helps the organization as well as the employees.

**Negative Effects of Occupational Self-Efficacy**

Low levels of OSE hurt employees at every organizational level, and leaders are trained as mediators to aid growth of employees' low levels for KSA improvement (Gregersen et al., 2014). Generally, low levels of OSE are connected to low motivation and self-confidence levels. Low OSE levels, particularly when connected to low motivation levels, may cause many employees to view further training and work measures as difficult, and their levels of transferrable skills and training will suffer (Iqbal & Dastgeer, 2017). If employees have low internal motivation, they only perform the bare minimum amount of work to grow necessary KSAs during training (Iqbal & Dastgeer, 2017).

Generally, such low self-confidence leads employees to see themselves as failures, regardless of past training performance to show successful KSA implementation

(Vergauwe, Wille, Feys, De Fruyt, & Anseel, 2015). Although this phenomenon has been seen in management for decades, it is now phrased as imposter syndrome. For example, a high-performing employee, once given a new position or promotion, feels that coworkers or managers will somehow see that employee as a failure, even if past success shows that employee has successfully performed similar KSAs in the past (Vergauwe et al., 2015). Poor self-belief and self-confidence keeps many employees from personal goals toward better training and KSA growth (Seo & Ilies, 2009), even if coworkers, leaders, or team members know the employee would benefit from said training (Vergauwe et al., 2015). In fact, coworkers, leaders, and team members can help self-doubting employees with low values that feed into imposter syndrome by providing encouragement during the employee's period of new career growth.

An employee that holds prior experiences with poor measurements of actions and OSE, as well as low motivation, may show continued errors in their workplace behaviors. These actions may include breaks in specific process chains, less measurable performance, or increased risk-taking (Seo & Ilies, 2009). New training, if not seen as applicable with old training, will hinder some employees' efforts (Renta-Davids et al., 2014). External factors also cause high-knowledgeable employees to produce poor work results (Tims, Bakker, & Derks., 2014). Supervisors can communicate poorly by providing difficult or hard-to-follow instructions to highly-knowledgeable employees (Mayfield & Mayfield, 2012). For many employees, a stressful home life can extend into the workplace, hurting self-efficacy and self-confidence in day-to-day tasks, even if company records show past mastery of these tasks (Nauta et al., 2010). Employees who distrust leaders or deal with untrustworthy leaders, may develop cynicism to the point that the employees may perform at minimal levels to keep their leader-subordinate relationships when the employees merely want to keep their jobs (Khalid, 2018). In fact, some

employees do better when working with teams or leaders simply because the teams or leaders provide accountability for employee growth (Yoon & Kayes, 2016); otherwise, relationships may continue to deteriorate. Although the employees may possess a strong internal motivation, the poor work results sap motivational growth when coworkers or leaders cannot help them improve or grow (De Clercq et al., 2019). Workplace ostracism causes poor relationships to worsen, particularly if employees cannot solve their issues (De Clercq et al., 2019). If the external factors do not help the employee improve OSE growth, then the employee will continue to struggle at the workplace.

Most organizations and management tend to see the theory of self-efficacy as old-fashioned due to its connection to Bandura. Many of its negatives have been corrected in various ways through organizational and management support (Jungert et al., 2013). While the high presence of OSE levels may provide positive aspects for employees, low levels or a lack of OSE can cause problems that hinder employee growth. HR practitioners within organizations can address issues that lower OSE growth, or solving problems to increase OSE growth, (Loomba & Karsten, 2019). Improved employee interaction and OSE levels help employees contribute to organizational success, whether through training or other measures. Therefore, HR professionals in organizations, especially practitioners, must address problems and situations that cause low internal motivation and confidence of their employees.

**Theoretical Framework**

Bandura (2001) defined Social Cognitive Theory (SCT) as, "[where] sociostructural factors operate through psychological mechanisms of the self system to produce behavioral effects" (p. 15). SCT is used to explain the phenomenon of the relationships between an employee's OSE and belief systems and how these factors influence the external environment.

Psychological studies have connected OSE to SCT (Consiglio et al., 2016). When employees take on various roles, their perception of task difficulties leads the employees to decide on the most appropriate tasks for each role (Bandura, 2001). If the organization or leaders react poorly to the employee's decisions and fulfilled task results, the employee may become discouraged from making similar or increasingly difficult decisions (Tims et al., 2014). Other times, external rules may frustrate well-performing employees, who then work at a lower performance because they lost trust in their leaders and organizations (Khalid, 2018). For these employees, the external environment affected their OSE levels and belief systems, causing them to do less work or make less taxing decisions. On the other hand, positive reinforcement can cause the employee to do more complicated tasks if the results indicate positive consequences. By understanding how SCT connects employee OSE and belief systems with the environment, HR professionals can better study how OSE effects can be exhibited within an organization.

## Occupational Self-Efficacy Application in Workplace

The research regarding OSE concepts tend to be used in the workplace setting. The main use of OSE concepts in the workforce appears to connect with studies on motivation (Jungert et al., 2013), goal theory (Hwang et al., 2016), and internal rewards for applications with training (Çetin & Aşkun, 2018). OSE has also been successfully applied in various facilities, such as hospitals (McKee et al., 2014), manufacturing (Yoon et al., 2018), and education (Gocłowska, Aldhobaiban, Elliot, Murayama, Kobeisy, & Abdelaziz, 2017). OSE concepts are generally connected to measurable learning, which is focused work containing readings, discussions, and presentations for involved employees (Germain & Grenier, 2015). For example, self-efficacy is used to learn new technology and provide new approaches to nurse and patient care (McKee et al., 2014). Other subjects that employ OSE concepts are education studies for improved teaching

and student improvement (Gocłowska et al., 2017) and learning and applying technological KSAs (Sheu et al., 2018). The connections with psychology, as seen with Bandura (1994), are continuously studied (Zhang, Cui, Zhang, Sarasvathy, & Anusha, 2019). HR-created training is generally focused on leaders and teams, and limited research pertaining to subordinate employees show that their specified training is connected with modeling and face-to-face instruction from leaders or team members (Lyons & Bandura, 2018).

**International Presence of Occupational Self-Efficacy**

OSE concepts are present internationally, seen in various countries such as India (Chaudhary et al., 2012), Pakistan (De Clercq et al., 2019), Taiwan (Chen & Kao, 2011), and Italy (Consiglio et al., 2016). When OSE concepts are seen within United States companies, these companies are generally working with international agreements with other countries, such as with China (Zhang et al., 2019), South Korea (Yoon & Kayes, 2016) and Slovenia and Sweden (Drnovšek et al., 2010). OSE concepts have also been applied in various industries, focusing on design (Beeftink et al., 2012), information technology (Drnovšek et al., 2010), telecommunications (Lu, Xie, & Guo., 2018), law enforcement (Chen & Kao, 2011), retail (Yoon & Kayes, 2016), textiles (De Clercq et al., 2019), and manufacturing (Chaudhary et al., 2012).

**Relationships and Occupational Self-Efficacy**

Leader relationships and OSE training for employee and team growth are also important. An employee's OSE tends to be affected by various workplace relationships (Bhatti et al., 2013). In this case, the use of leaders and teams is helpful for an employee's OSE growth (Lyons & Bandura, 2018). Organizations generally focus on OSE concepts within training for leaders, entrepreneurs, and supervisors (Ahlin et al., 2014), with smaller focus on their followers and

subordinates (Kammeyer-Mueller et al., 2013). After all, OSE-related skills can merge with many leadership attributes and produce strong self-directive skills for further leader growth (Schyns & Sczesny, 2010).

**Leaders.** As the leaders grow, their self-directed improvement influences subordinates' growth and OSE as well (Gregersen et al., 2014). Leaders in management positions show concern for employee growth when individuals are selected for team placement (Yoon & Kayes, 2016). When choosing viable leaders for teams or groups, management should not only consider the new leaders' KSAs for appropriate selection, but also consider the respect and growth of subordinate employees who will be under the new leaders (Yoon & Kayes, 2016). Subordinate followers must also be able to view the leader with accountability and respect for successful leader implementation into newly-made or already-formed teams. Subordinate respect greatly helps new leaders as well (Yoon & Kayes, 2016). Also, when organizational policy changes and leaders intervene to help employees adjust to the new policy, the employees' OSE will improve from the support (Dedahanov et al., 2018). If an employee shows errors during the process of a task, leaders who intervene to help the employees take responsibility and improve task behavior also help the employee grow OSE levels (Dedahanov et al., 2018). Leaders assist employees when transferring old KSAs to new training (Bhatti et al., 2013) as well as new training techniques overall (Gocłowska et al., 2017). Leaders also help employees improve their overall well-being (Gregersen et al., 2014), provide positive and motivational communication for all employees (Mayfield & Mayfield, 2012), and show emotional commitment for employee growth (Tsai, Tsai, & Wang., 2011).

Leaders and entrepreneurs demonstrate connections between their self-growth and self-motivation measurements to reflect personal OSE level growth (Gregersen et al., 2014) and

creativity levels (Ahlin et al., 2014). Such leaders can positively influence an employee's decision regarding self-improvement (Holden et al., 2017), as the improving leader-subordinate relationship helps the employee see the leader as more engaged with the organization and other workers (Lu et al., 2018). Other positive effects of OSE for leaders include positive discussion of relationship factors with subordinates or coworkers (Jungert et al., 2013). As a whole, the use of leaders is not necessary for employee growth and improvement from the HR perspective, although their shared presence illustrates their workplace value.

**Teams.** Teams and team members are useful for developing a new employee's self-efficacy (Kao, 2017). For these teams, the shared, unwritten rules regarding member accountability are integral for the trust and perception of self-confidence within the team and among the members, which further influences individual growth and support for KSAs and OSE levels (Yoon & Kayes, 2016). For similar reasons, team members can help mediate peace and improve employee growth as needed for continual organizational functioning (Chen & Kao, 2011). Employees who trained together in a stress management course showed improvement in OSE levels as well, since the training was positively influenced by member accountability (Füllemann et al., 2015). For HR practitioners planning continued training, building up leaders and teams is a helpful bridge to the subordinate employees interacting with their leaders and coworkers (Lu et al., 2018).

**Employees.** However, a single employee also makes the choice of improving his or her self-efficacy, even when around teams (Cherian & Jacob, 2013). Such training is connected to employees' relationships and self-esteem as much as to their confidence levels (Loomba & Karsten, 2019). Ostracism from leaders or teams also hinder employee growth and motivation (Kammeyer-Mueller et al., 2013). Furthermore, gender relations also affect OSE levels (Liu et

al., 2017). However, the levels of OSE for employees are still connected to personal and internal choices as much as to external factors such as relationships.

While training has been an aid to help employees improve (Sheu et al., 2018), such training is connected to employees modeling leaders or coworkers in necessary work instructions or KSAs (Bhatti et al., 2013). For subordinate-level employees, training that involves OSE concepts is more generalized, as opposed to a leader's specified training (Greenhalgh & Rosenblatt, 2010). Such employees tend not to worry about how well they perform with new KSAs: their interests are accomplishing the new training and tasks just enough to keep their jobs and continue working (Greenhalgh & Rosenblatt, 2010). For most employees and supervisors, simply performing the task is enough for organizational success.

Other issues that keep employees from high levels of OSE tend to focus on communication and relationships. Although positive communication is imperative for supervisor/subordinate dyads, a lack of encouragement and motivation can add to poor relationships and employee self-efficacy, as employees do not feel encouraged or supported during their career growth (Malik et al., 2015). Gender communication barriers can also come into play, with men and women disagreeing about what cultural and behavioral norms are considered appropriate for verbal and nonverbal behavior (Liu et al., 2017). Therefore, an employee's various perceptions of supervisors may affect that employee's self-efficacy and overall work performance, as well as their relationships with other members in a team or working alongside their leaders (Yoon & Kayes, 2016). An employee improves when communication and relationships improve or remain positive.

Employee growth is also influenced by goal-setting and motivation (Beeftink et al., 2012), work engagement (Iqbal & Dastgeer, 2017), communication (Mayfield & Mayfield,

2012), and team member accountability (Yoon & Kayes, 2016). An employee's ability to make decisions and voice concerns are also helpful to OSE growth (Nauta et al., 2010), as well as positive leader/subordinate discussion and communication (Malik et al., 2015). Training results that strengthen employees' OSE levels can inspire those employees to pursue further training, particularly if such employees are able to select the training they want (Loomba & Karsten, 2019). Having the ability to choose training will also improve employee confidence and build more knowledgeable skill sets (Loomba & Karsten, 2019).

Developing employees that contain strong OSE levels, particularly if the OSE levels have been improved from within the organization, will encourage high levels of employee engagement and commitment to the organization (Chaudhary et al., 2012). If employees sense little organizational support, connection and commitment will be low (Tims et al., 2014). Any issues with employee autonomy also cause confusion, discomfort, and distrust between employees and organization staff (Nauta et al., 2010). If employees were able to make choices regarding their chosen tasks, then their OSE levels raise based on their control (Dedahanov et al., 2018). Surprisingly, many employees who utilized a high level of OSE were able to bypass the problems related to low OSE (Nauta et al., 2010). These employees utilized their environment and job tasks in order to prove that they performed better, and were promoted at a faster rate, based on their higher levels of productivity and shared responsibility (Nauta et al., 2010).

However, autonomy was only one factor that most employees face when dealing with OSE concepts. Other factors that help or hinder individual employees and their OSE levels are their environment, relationships, and overall work culture, with employees continuing to work at low or high standards dependent upon those factors (Nauta et al., 2010). HR practitioners must

then focus on helping the employee improve his or her levels of OSE in order to help that employee improve training, relationships, environment, or other factors as needed for success.

After all, increasing KSAs will allow employees to increase their OSE levels (Çetin & Aşkun, 2018), which will then repeat the cycle of improved motivation, confidence, and self-efficaacy overall (Iqbal & Dastgeer, 2017). The employees' consequences and results of training should drive HR to add training needed to improve OSE levels in the employees. Such training is useful, particularly when improvement of OSE levels leads to other measurable improvements.

Although HR employees cannot control governmental or industrial standards for their organizations, they can begin research, application, and implementation of training addressing OSE concepts with their employees. By doing so, these employers can begin helping their employees develop self-growth and motivation to improve their chances of promotions and newer skills to escape being replaced by technology or other, better-skilled coworkers. Otherwise, the organization may lose skilled employees that could improve the organization overall.

## Summary

There are gaps in OSE research. For instance, while leaders and teams have received the most training, less research has been done regarding subordinate employees. Even with strong leaders, low OSE levels hinder employee growth and lead to job fears and insecurity if the levels are not improved (Greenhalgh & Rosenblatt, 2010). Focusing an employee's mindset toward improved OSE requires further investigation of both internal and external factors for success (Malik et al., 2015), particularly around different workplace cultures and relationships (Nauta et al., 2010).

HR practitioners must be able to analyze the employees' issues with measurable KSAs or workplace behavior to find the bottom line. By looking at the employee's levels of OSE, as seen in the measurable records, these practitioners would then study their relationships to see what else could be causing problems with the employee's performance. If the employee's behaviors are seen in areas where training may not help, those areas must be studied in order to solve the problems that cause low employee performance.

Another gap of OSE research includes the studied populations and samples, with based on educational studies at universities with student subjects (Gocłowska et al., 2017) and meta-analyses based on research hypotheses (Sheu et al., 2018). Realistic studies include comparisons between mixtures of industries and employees, (Nauta et al., 2010), entrepreneurs (Zhang et al., 2019), and business owners (Seo & Ilies, 2009). Therefore, the various foci of these studies were a mixture of the involved people and industries. Other industries for study, such as hospitals (McKee et al., 2014) and restaurants (Liu et al., 2017), focused on helping the employees make improved decisions based on technological knowledge, as well as relationships, for success (Liu et al., 2017; McKee et al., 2014). For practical applications, many HR practitioners must be able to interpret the events and effects surrounding OSE concepts separate from research and hypotheses so that they can apply the concepts to help their employees grow.

Another gap involves the issue of seeing OSE levels and growth as side effects of main hypotheses. Jani (2001) discussed his results as a laboratory study connecting results from a university to real-world employees, with OSE concepts as one of many realizations in the study. Nauta et al. (2010) examined how job stress influenced poor relationships, and how high levels of OSE helped employees navigate job stress. Therefore, many of the studies were useful for research and understanding the theories for OSE, but did not aid study for real-world

applications. Again, HR professionals must be able to study the effects of OSE on employee performance so that deeper issues affecting performance can be addressed.

For HR professionals, OSE concepts are presented as useful in certain senses, and never noted by name, but just explained as factors within the training. Little research was found to link middle and lower-level employees, even with subordinates, to OSE concepts without leader or HR intervention for aiding encouragement or KSA growth. Most subordinate and middle/lower level employees showed improvement with new training or accountability when connected to teams or leaders. However, many of the studies connected to HR did not show specific techniques on how to improve OSE levels as a whole for employee success, but rather to prove that the training helped employees improve (Loomba & Karsten, 2019).

Many of these studies addressed other concerns regarding OSE concepts: generally, HR personnel were not involved except to explain the results and their recommendations for future use. Even suggested training did not specifically state growing OSE levels for employee improvement; many training suggestions involved looking at measurable skills to improve OSE concepts. For instance, HR practitioners must address and discuss the various relationship and communication issues between all employee hierarchies to see the workforce environment from employee eyes. Many problems concerning employee growth may not be connected to training; poor relationships, environment, or other factors can hurt or hinder OSE levels, and low levels can then lower employee performance.

Therefore, studying how OSE affects job performance is not just useful in helping HR employees address poor training results. The various gaps that show problems with relationships among employees, low confidence, organizational disengagement, and other factors illustrate

that employee OSE levels are affected by more than training. Therefore, the concepts of OSE, and how they affect job performance, should be studied in more detail.

# CHAPTER THREE

# METHODOLOGY

This research sought to investigate the existence, extent, and effectiveness of OSE used in the workplace, as well as how OSE concepts affect employees' job performance. This quantitative study sought to address answers to the research questions. This chapter will describe the research methodology that was implemented during the study, and the data collection method used was outlined as well.

## Research Design

### Survey Design

A three-part questionnaire was designed online by the researcher using the *Qualtrics* software package (see Appendix A). According to Spickard (2016), questionnaires are one of the most appropriate tools when collecting data, allowing researchers to gather "ideas, behaviors, and attitudes toward" the studied topic (p. 187). Questionnaire usage provided data for studying basic patterns and observations from the participants' viewpoints regarding how well they view their workplace in terms of support and personal self-growth and confidence. These patterns showed the impact of OSE on worker performance as seen within the workplace setting. The use of the *Qualtrics* software package allowed for the creation of multi-page web form for collecting data into the relational database, *SPSS* statistical software, for statistical analysis. A screening device for an invalid survey (i.e., asking respondents to select a specific number on a given question) was created to ensure the validity of the research outcome.

**Demographic Variables.** Survey questions on demographic variables were gathered from each respondent, asking for information such as gender, marital status, industry, employment status, education level, and age, as well as leadership positions. These demographics acted as control variable questions during data collection.

**Occupational Self-Efficacy Scale.** After permission was granted (see Appendix B), questions on OSE came from the eight-item Occupational Self-Efficacy Scale (Schyns and von Collani, 2002) that asked about relationships with coworkers, resourcefulness, composure, problem-solving, and work experiences. Respondents were asked to indicate their agreement with statements such as "Thanks to my resourcefulness, I know how to handle unforeseen situations in my job." A scale of 1 to 6 was used for each item, with 1 = completely true to 6 = not at all true. The numbers were reversed (1= not at all true; 6 = completely true) in the final data set for statistical analysis purpose. The short form has several measurements that confirm the validity (construct and incremental) (Gregersen et al., 2014; Schyns & von Collani, 2002), criterion (Schyns & Sczesny, 2010), and predictive validity, (Rigotti, Schyns, & Mohr, 2008; Chiesa et al., 2016) and the reliability (Schyns & von Collani, 2002, $\alpha = 0.92$; Füllemann et al., 2015, $\alpha = 0.92$) of the instrument. The data obtained from this section of the questionnaire was used to answer the first research question.

**Performance Analysis Scale.** Questions on Performance Analysis came from a five-item scale, involving the study of employee performance. Respondents were asked to indicate their agreement with statements such as "I pass my performance evaluations every time." A scale of 1 to 6 was used for each item, with "1 = completely true" to "6 = not at all true". The numbers were reversed (1= not at all true; 6 = completely true) in the final data set for statistical analysis

purpose. The data obtained from this section of the questionnaire was used to answer the third research question.

**Content Validity.** Prior to beginning data collection with the population in this study, a pilot test was conducted to provide initial feedback on the questionnaire. In order to develop content validity with the questionnaire, Dillman's (2004) process of the four sequential stages of pretest for data collection was followed. This process includes consulting a subject matter expert, asking a small group of target population to fill out the survey, conducting a pilot study on different populations, and asking a few more people from the target population to fill out the survey. A skilled research expert was consulted for help with questionnaire creation and adaptation from the author's earlier research and questionnaire drafts. The pilot study group was selected from online students who would be graduating in the fall of 2019. The pilot study details, in the next section, showed that the questionnaire needed some adaptation for the spring of 2020. A second part of the questionnaire was sent out with a question asking for advice about how to improve the questionnaire.

Dillman's (2000) other process, referred to as Total Design Method, involved a systematic pattern for sending e-mails. This pattern included a pre-notice letter to gather interest, as well as an e-mail with the link and follow-up and reminder e-mails to gather responses. For the present questionnaire to be valid for the pilot study, all participants received a pattern of e-mails. The first e-mail gathered interest in the questionnaire, along with a link to the *Qualtrics* questionnaire. The second e-mail was a reminder to take the questionnaire by the ending date. The last e-mail, based on response rate, was a final reminder for the questionnaire. This pattern will be followed in the spring.

## Pilot Study

The pilot study was sent to a group of online students during the fall 2019 semester. These students would either graduate in fall of 2019, or were not in an online program connected with the college population that received the final questionnaire. There were 56 responses out of an initial group of 440 e-mails, with a second group of 5 responses out of 50 e-mails. The researcher used the *SPSS* statistical software to compute descriptive statistics, correlations, and t-tests for the scales used for the data in the questionnaire. The demographic variables acted as control variables throughout the data analysis methods.

For both sets of samples, the results were similar: there was a high female to male ratio of responses, with a high industry count of nursing/healthcare as opposed to other industries. The questionnaire was altered after the first group of student responses, with two questions changing: the age range was more organized, and the industry selections were alphabetized for ease of legibility. The second group of students were provided a box for bring advice or comments to the main researcher, but no advice was given for the researcher.

The results and advice also provided clarity on skews that might be present in the spring. These skews include a high male-to-female ratio of respondents, and may provide insight and a large skew of the various industries of students that are attending that particular college. Another issue came up with using *Qualtrics* as a survey instrument: when e-mails were sent to students from the *Qualtrics* website, there were only a few initial responses. The reminder e-mails were sent directly to students from the researcher's e-mail address, along with individualized links, and those had better response times. Knowing these skews and issues helped with organizing data in the spring.

## Population & Sample

The participants for this study were students who work full-time or part-time, taking online classes at a Midwestern university. Stratified convenience sampling was used to obtain a list of all enrolled distance students from the academic college's chief administrator for one academic semester. Full-time and part-time working students are a common focus for many study populations (Byars-Winston et al., 2017), as OSE growth is useful to employee growth and engagement within the organization (Chaudhary et al., 2013; Consiglio et al., 2016).

## Data Collection Process

Students enrolled during the term of the research study received an email (see Appendix E) explaining the purpose of the study and how to participate. The email also included a link to the online questionnaire in *Qualtrics*. In order to ensure consistency, all students received the same link to the same questionnaire, which contained the same amounts and types of questions. These questionnaires were completed anonymously. After a one-week time period, the researcher sent a follow-up email that asked participants to complete the survey, if they have not done so. The online questionnaire remained open for one additional week.

Responses were used to gather as much quantitative data as possible to show underlying patterns of actions, behaviors, and beliefs that may lead to hindrance or growth of OSE. More importantly, the responses showed patterns of other issues that may show OSE concepts in action, even if the term is not used within HR at that given point in time.

## Data Analysis

The researcher operated the *SPSS* statistical software package to compute descriptive analysis, mean comparison, correlation coefficient, and reliability analysis for the scales used in the questionnaire. Cronbach's alpha measures the internal consistency of a scale. It represents

the degree to which instrument items are homogeneous and reflect the same underlying construct(s) (Pituch & Stevens, 2016). The results from the data analysis are discussed in Chapter 4.

# CHAPTER 4

# RESULTS

This research sought to investigate the existence, extent, and effectiveness of OSE used in the workplace, as well as how OSE concepts affect employees' job performance. The purpose of this research is to investigate the existence, extent, and effectiveness of OSE used in the workplace, as well as how OSE concepts affect employees' job performance. The results were analyzed with the *SPSS Statistical Software*, to study the central tendency figures, measures of variability, frequencies, and correlations. These findings are discussed below.

## Findings

### Respondent Demographic Information

After selecting a population from a college within a Midwestern University, a two-week survey was sent out, with an extra week for bolstering results. This survey gathered results from a large population, with 854 online students in the college, and the sample size being 130 respondents (a 13% return rate). After removing incomplete surveys or responses that failed to follow instructions, the final analyzed data was 111.

Table 1, shown below, reveals the percentages of each demographic variable (age, gender, educational levels, industry, and leadership) for all respondents. The highest scores are shown in bold. The majority of respondents were male (67%; n=74) and middle-aged adults (82.9%; n=92; 24-55 years old). Most of the respondents worked in construction (28.8%; n=32) and manufacturing (22.5%; n=25) industries, and only about 30% of the respondents (n=34) held a higher education degree. The demographic information reflects the college's focus on

technology and related studies, that a higher percentage of males pursue these fields of study, and that populations of distance students tend to be middle-aged adult workers.

**Table 1**

*Demographic Variables (N=111)*

| | | n | % |
|---|---|---|---|
| Gender | Male | 74 | **66.70** |
| | Female | 37 | 33.30 |
| Age | 18-23 | 13 | 11.70 |
| | 24-39 | 56 | **50.50** |
| | 40-55 | 36 | **32.40** |
| | 56-74 | 6 | 5.40 |
| Industry | Construction | 32 | **28.80** |
| | Educational Services | 11 | 9.90 |
| | Healthcare/Social Assistance | 8 | 7.20 |
| | Hospitality and Food, Arts & Entertainment, and Natural Resources | 3 | 2.70 |
| | Information Services/Professional, Scientific, and Technical Services | 10 | 9.00 |
| | Manufacturing | 25 | **22.50** |
| | Trade (Retail/Wholesale/Etc.) | 3 | 2.70 |
| | Transportation | 3 | 2.70 |
| | Utilities | 3 | 2.70 |
| | Unclassified Industries "Other" | 13* | **11.70** |
| Education | High School/GED | 27 | **24.30** |
| | Associate | 50 | **45.00** |
| | Bachelor's | 21 | 18.90 |
| | Master's | 13 | 11.70 |
| Leadership | Yes | **58** | **52.30** |
| | No | 53 | 47.70 |

*Note***.** The highest percentage numbers have been placed in bold for legibility**.**
*6 responses were "Military".

## Research Questions

**Research Question 1.** *How do OSE levels of the participants differ*? For analysis purpose, the researcher calculated the mean for each item within the OSE scale, using three categorized levels: Low = 0 to 2.99, Medium = 3 to 4.99 and High = 5 to 6. Table 2 illustrates that the OSE levels of all participants differ, but all eight statements fell within the High level.

Table 2, shown below, provides a frequency chart to illustrate the means on the overall OSE scale for all respondents. Eight of the mean categories fell within the Medium level, and 9 of the mean categories fell within the High level. Individual responses on each items of the OSE scale are presented Appendix E.

**Table 2**

*Individual Statement Means on Occupational Self-Efficacy Scale (N=111)*

| | M[a] | SD | OSE Level |
|---|---|---|---|
| Thanks to my resourcefulness, I know how to handle unforeseen situations in my job. | 5.32 | 0.87 | High |
| If I am in trouble at my work, I can usually think of something to do. | 5.32 | 0.80 | High |
| I can remain calm when facing difficulties in my job because I can rely on my abilities. | 5.40 | 0.81 | High |
| When I am confronted with a problem in my job, I can usually find several solutions | 5.32 | 0.75 | High |
| No matter what comes my way in my job, I'm usually able to handle it. | 5.40 | 0.69 | High |
| My past experiences in my job have prepared me well for my occupational future. | 5.35 | 0.97 | High |
| I meet the goals that I set for myself in my job. | 5.27 | 0.73 | High |
| I feel prepared to meet most of the demands in my job. | 5.42 | 0.78 | High |

[a] (1) = Not at all true; (6) = Completely true

Table 3 shows the various frequencies matched to each OSE Mean Level. Here, 18 respondents showed a medium level of OSE. 93 respondents showed a high level of OSE. No respondents showed a low level of OSE.

**Table 3**

OSE Mean Frequencies

| Measurement | Level | N | % |
|---|---|---|---|
| Low | 1.0-2.9 | 0 | 0 |
| Medium | 3.0-4.9 | 18 | 16 |
| High | 5.0-6.0 | 93 | 84 |
| Total | | 111 | 100 |

**Research Question 2.** *How do demographic variables influence the level of OSE?* The researcher ran a bivariate Pearson Correlation using the demographic variables of Age, Gender, Education, and Leadership as well as the overall means from the OSE and PA scales (see Table 4). The results indicate there was a significant correlation between Age and Education, with $r$ (109)= 0.27, $.p$ <.05. There was also a significant correlation between the OSE mean and both Age ($r$ (109)= 0.31, $.p$ <.05), and Leadership ($r$ (109)= 0.24, $.p$ <.05). The significance values suggest that there should be more analysis into the connections of the OSE Means and the demographic variables of Age and Leadership to further explore how these variables can influence OSE.

**Table 4**

*Correlations (n=111)*

| | M | SD | Age | Gender | Education | Leadership | OSE | PA |
|---|---|---|---|---|---|---|---|---|
| Age | 2.32[a] | 0.75 | | | | | | |
| Gender | 1.33[b] | 0.47 | -0.02 | 1.00 | | | | |
| Education | 2.18[c] | 0.94 | 0.27** | -0.01 | 1.00 | | | |
| Leadership | 0.48[d] | 0.50 | 0.08 | -0.03 | 0.11 | 1.00 | | |
| OSE | 5.35 | 0.56 | .31** | -0.04 | 0.05 | 0.24** | 1.00 | |
| PA | 4.73 | 1.15 | -0.06 | 0.111 | -0.008 | 0.11 | 0.12 | 1.00 |

** Correlation is significant at the 0.01 level (2-tailed).
[a] 1 = 18-23; 2 = 24-39; 3 = 40-55; 4 = 56-74
[b] 1 = Male; 2 = Female
[c] 1 = High school; 2 = Associate; 3 = Bachelor's; 4 = Master's
[d] 0 = No; 1= Yes

**Research Question 3.** *What is the relationship between OSE and job performance?*

To answer this research question, the researcher first looked at individual job performance. The researcher calculated the mean for each item within the PA scale, using three categorized levels: Low = 0 to 2.99, Medium = 3 to 4.99, and High = 5 to 6. Table 5, shown below, illustrates that

PA levels of all participants differ. Two of the five statements fell within the High level, and three fell within the Medium level. Individual responses on each items of the PA scale are presented in Appendix F.

Past research has indicated subtle differences between males and females when comparing OSE factors. In Byars-Winston et al.'s meta-analysis (2017), they studied four sub-topics that form OSE concepts. Byars-Winston et. al (2017) found that women tended to have lower levels of these factors than men. They also noted how women in STEM courses tend to have lower OSE levels due to inexperience with course material. Abele and Spurk (2009) noticed the lower OSE levels in women from their study on wage gap analysis, wherein females' lower levels ($M$ = 3.69), as opposed to males' levels ($M$ = 3.85), were attributable to past experiences and less training. Liu et al. (2017) found that women with low levels of OSE are the most likely to leave an unsupportive organization. The study also suggested that women in higher-functioning occupations, such as nursing and flight attendants, contain higher OSE levels because their education and past work experience demand higher OSE levels for success (Liu et al., 2017). Therefore, these differences justified calculating the means of the OSE and PA scales by gender.

**Table 5**

*Individual Statement Means on Performance Analysis Scale (N=111)*

| | M[a] | SD | PA level |
|---|---|---|---|
| I pass my performance evaluations every time. | 5.69 | .63 | High |
| I receive explanations for my evaluation scores. | 5.04 | 1.46 | High |
| After the evaluation was over, I received suggestions on improving my score. | 4.63 | 1.68 | Medium |
| After the evaluation was over, I received further training for improving my score. | 3.87 | 1.84 | Medium |
| The provided feedback improved my next evaluation score. | 4.41 | 1.66 | Medium |

[a] (1) = Not at all true; (6) = Completely true

Table 6, shown below, illustrates the mean averages for the demographic variables of Age, Education, and Leadership and the overall OSE and PA scales for the male participants. The results showed no statistically significant difference from the overall sample in the demographic variables of Age, Education and Leadership or the overall OSE scale. However, there was a slight decrease in the overall PA scale for males. Subsequently, a bivariate Pearson Correlation was performed using the means of the OSE and PA scales from the male participants with demographic variables of Age, Gender, Education, and Leadership. The results indicated there was a statistically significant correlation between Age and Education, with $r$ (72) = 0.28, $.p$ <.05. There was also a statistically significant correlation between the OSE mean and both Age and Leadership, $r$ (72)= 0.24, $.p$ <.05, and $r$ (72)= 0.295, $.p$ <.05, respectively. Overall, the results for the male participants showed no statistically significant difference when compared to the results from whole sample.

Table 7 illustrates the means for the demographic variables of Age, Education and Leadership and the overall OSE and PA scales for the female participants. The results showed no statistically significant differences from the overall sample in the demographic variables or the overall OSE scale; however, there was a slight increase in the overall PA scale. Next, a bivariate Pearson Correlation was performed using the means of the OSE and PA scales from the female participants with demographic variables of Age, Gender, Education, and Leadership (see Table 11). The results indicated there was a statistically significant correlation between Age and the OSE mean, $r$ (35) = 0.38, $p$ <.05, and there was a significant correlation between the OSE scale and the PA scale, with $r$ (35) = 0.48, $.p$ <.01.

**Table 6**

*Correlations for Males (N=74)*

| | M | SD | Age | Education | Leadership | OSE | PA |
|---|---|---|---|---|---|---|---|
| Age | 2.32[a] | 0.70 | 1.00 | | | | |
| Education | 2.19[b] | 0.87 | 0.28** | 1.00 | | | |
| Leadership | 0.49[c] | 0.50 | 0.13 | 0.10 | 1.00 | | |
| OSE | 5.36 | 0.46 | 0.24** | 0.099 | 0.295** | 1.00 | |
| PA | 4.64 | 1.15 | -0.23 | 0.04 | 0.10 | -0.12 | 1.00 |

** Correlation is significant at the 0.05 level (2-tailed).
The corresponding letters refer to the choices from the questionnaire for each selection.
[a] 1 = 18-23; 2 = 24-39; 3 = 40-55; 4 = 56-74
[b] 1 = High school; 2 = Associate; 3 = Bachelor's; 4 = Master's
[c] 0 = No; 1= Yes

Since the levels of leadership between males and females appeared to be relatively high and the results from the male participants revealed a statistically significant correlation between OSE and leadership, the researcher further analyzed the differences between Gender and Leadership (see Table 8). The results revealed that while more males held a leadership position in their workplace, twice as many males participated in the research study. The overall percentages revealed only a small difference (49% of the males and 46% of the females). Conversely, the results showed a slightly higher percentage of females were not in leadership positions (54% of the females and 51% of the males).

The results reveal the relationship between job performance and OSE could be based on gender differences. This difference is primarily seen in the absence of a significant correlation between the OSE and PA means for the male participants. However, the significant correlation found for males between leadership and OSE could indicate leaders contain OSE qualities.

**Table 7**

*Correlations for Females (N=37)*

| | M | SD | Age | Education | Leadership | OSE | PA |
|---|---|---|---|---|---|---|---|
| Age | 2.30[a] | 0.85 | 1.00 | | | | |
| Education | 2.16[b] | 1.07 | 0.25 | 1.00 | | | |
| Leadership | 0.46[c] | 0.51 | -0.004 | 0.12 | 1.00 | | |
| OSE | 5.32 | 0.74 | 0.38* | 0.003 | 0.19 | 1.00 | |
| PA | 4.92 | 1.14 | 0.24 | -0.08 | 0.13 | 0.48** | 1.00 |

* Correlation is statistically significant at the 0.05 level (2-tailed).
** Correlation is statistically significant at the 0.01 level (2-tailed).
[a] 1 = 18-23; 2 = 24-39; 3 = 40-55; 4 = 56-74
[b] 1 = High school; 2 = Associate; 3 = Bachelor's; 4 = Master's
[c] 0 = No; 1= Yes

**Table 8**

*Cross Tabulations Regarding the Connections between Males, Females, and Leadership Factors*

| | | LEADERSHIP | | | | Total | |
|---|---|---|---|---|---|---|---|
| | | No | | Yes | | | |
| | | n | % | n | % | n | % |
| GENDER | Males | 38 | 51 | 36 | 49 | 74 | 74 |
| | Females | 20 | 54 | 17 | 46 | 37 | 37 |
| Total | | 58 | 100 | 53 | 100 | 111 | 100 |

# CHAPTER 5

# DISCUSSION AND CONCLUSIONS

The use of occupational self-efficacy is still useful in today's workplace. The purpose of this quantitative study was to investigate the existence, extent, and effectiveness of OSE used in the workplace, as well as how OSE concepts affect employees' job performance. A questionnaire was created and sent out, first in a pilot study to ensure the content validity, and then to online students within a college at a Midwestern University. The questionnaire revealed various factors that provided results for the research questions. All three research questions had tangible results.

## Discussion

The results of this study revealed some differences in OSE levels, with various demographics affecting OSE growth and performance, and OSE affecting job performance. Overall, the higher count of males than females and a higher age group of 24-39 years reflect the online population of the nontraditional college from a Midwestern University, one that focuses on technological study. The industries represented in the results contain the highest numbers in Construction, Manufacturing, Education, and Information and Data-related services, reflect again the academic majors offered by this college.

### Demographic Variables

The results of this study revealed that there were several significant factors to support OSE. The connection found in this study between Age and OSE is similar to what Chiesa et al. (2016) found in their Italian study focusing on older employees and stereotypes, which noted that

older workers tend to be a positive force when utilized correctly. Gender has been studied in various ways, whether as a comparison between different (Byars-Winston et al., 2017) or similar (Liu et al., 2017) genders in both research and industrial settings. Various production industries, such as those connected to construction (Lorente, Salanova, & Martinez, 2011), manufacturing (Khalid, 2018), and information technology (Jani, 2011), investigated OSE studies and research because of safety (Lorente et al., 2011), career growth (Chen & Kao, 2011), and relationship (Black et al., 2019) concerns. The education levels of this study's participants include High School/GED and Bachelor degrees, showing that these nontraditional students have some basic experience and knowledge that shows evidence of OSE concepts (Byars-Winston et al., 2017). Also, the slightly higher leadership levels are a reflection of OSE literature when working with leadership studies (Tsai et al., 2011), particularly when connected to possible emotions and feedback between leaders and followers (Seo & Ilies, 2009).

These results are significant because research suggested that experience from age (Chiesa et al., 2016) or employee KSAs from a given industry are helpful for employee growth (Chen & Kao, 2011). For instance, an employee's age influences their viewpoints and OSE levels: generally, the older an employee, the more experience and job skills that employee has to keep job tenure and competence (Chiesa et al., 2016). Many of these employees have experience and education to bolster their OSE levels (Renta-Davids et al., 2014). They also often seek new experiences and training to aid their job growth and performance, particularly if they feel the organization helps them with suggested training or encouragement (Shantz et al., 2016). Employees' OSE levels will be greatly improved as employees mature, particularly when connected to career growth or possible promotions (Tsai et al., 2011).

Higher education factors can also be connected to organizational growth, either aiding in future training (Renta-Davids et al., 2014) or contributing to job satisfaction (Gil & Mataveli, 2017). Leadership (Gregersen et al., 2014) and gender differences (Liu et al., 2017) also influence OSE for employees, whether through language or relationship factors (Cherian & Jacob, 2013). While other demographics may influence OSE-related skills based on training and education (Byars-Winston et al., 2017), the experiences involved in training and cooperation among the employees of various industries do help workers mature in OSE-related KSAs (Chen & Kao, 2011).

Present knowledge of OSE also involves Lyons and Bandura's (2018) addition of at the use of "observation of role models", which allows new employees to learn new KSAs from experienced employees (p. 1). For inexperienced employees, successfully achieving tasks at higher levels of difficulty builds self-esteem (Tims et al., 2014). As the employees show increased experience through the history of their fulfilled tasks, the continued improvement contributes to organizational growth as well (Gil & Mataveli, 2017).

**OSE Levels**

Seo and Ilies (2009) stated the differences of OSE levels are responsible for employee behavior, with high levels of OSE helping employees work and produce more effectively. The research findings support the importance of measuring levels of OSE for tangible experiences and conditions to address. The means of each statement from the OSE scale revealed higher scores on statements related to preparedness, supporting findings that OSE levels are linked to visible employee growth (Lyons & Bandura, 2018), empowerment (Nafari & Vatankhah, 2016), and follower and leadership dyads (Lu et al., 2018). These positive situations aid OSE levels for employee improvement.

**OSE and Job Performance**

The means of each statement from the PA scale revealed lower scores on statements related to the employee's perception on receiving suggestions for Performance Analysis, training, or feedback. Bhatti and Kaur (2010) suggested that changing these factors can change how OSE levels grow or lessen. Research also shows that employee perception of training or feedback would also influence OSE levels of growth (Lyons & Bandura, 2018). Even with transformational leaders, employees improve performance through self-analysis and OSE (Liu et al., 2017). More to the point, personal relationships and employee self-perception would influence, positively and negatively, OSE growth for employees, whether from engagement with the organization (Chaudhary et al., 2013), group training or work (Gil & Mataveli, 2017), or job strain (Nauta et al., 2010). For most employees, performance analysis simply means analyzing how well the organization was able to help those employees improve; and the results indicated that some employees were hesitant in seeing how the organization would even help them. In this case, a better understanding of the organizational dynamics would provide further answers to their reactions.

While the results of this study revealed statistically significant variables that would influence OSE: Age, Gender and Leadership for the overall group of participants, the results also revealed statistically significant variables that would influence OSE between male and female participants. For instance, OSE levels differ by gender in academic studies, such as with mathematics and language arts (Huang, 2013), and STEM courses (Byars-Winston et al., 2017), with males having higher levels with mathematics and STEM courses, and females with language arts levels. Organizational support was also helpful for aiding OSE levels in women

(Liu et al., 2017), as well as providing emotional support and role models (Lyons & Bandura, 2019) as needed for academic and organizational success.

Byars-Winston et al. (2017) also suggested that age, education, gender, and leadership are useful for aiding job performance. More to the point, many employees do their own training, or pursue education on their own, so that the employer may not see a need for training when employees show job improvement from self-growth (Yoon et al., 2018). Leadership seemed to be a common factor among males and females, although the number of males and females being leaders could be attributable to the larger male count of the study. Byars-Winston et al. (2017) indicated that leadership is a shared phenomenon, dependent upon competence and KSA growth when connected to OSE factors.

While males did not appear to have a significant connection with the OSE Mean, their PA Mean was significant. These results follow research showing how feedback over time (Spurk & Abele, 2014), job crafting (Seo & Ilies, 2009), and employee relationships affect employee career growth (Jiang et al., 2018), which in turn can improve job performance. If created and utilized positively with employees, such factors actually lead to higher levels of OSE growth, which can then lead to job performance.

The results for the female participants revealed that Age, Education, OSE, and PA were important. Like with males, Age and Education appeared important, particularly when those factors were compared to males' results. However, as Age and OSE are statistically significant, as well as Gender, then the study of OSE Mean is not important except that the females of the study showed a more uniform and statistically significant result with their numbers.

In this case, while OSE is not measurable by itself, employees who have higher numbers of OSE may actually have better job performance. Many employees may have high OSE levels

from past training (Guan & Frenkel, 2019), education (Yoon et al., 2018), and experience (Beeftink et al., 2012). Most importantly, the results show the importance of team training and team cohesion to impact OSE and PA growth (Black et al., 2019), particularly when addressing the emotional intelligence and conflict that may occur. Other factors that influence teams, such as with learning new courses (Füllemann et al., 2015), positive communication (Nauta et al., 2010), and coworker relationships (Yoon & Kayes, 2016) indicate the females of the study, and employees in general, may find better performance through team factors that influence OSE growth.

Although the respondents may have different work conditions because the work environments or human interactions are different, they may also share concepts of what is acceptable within these industries or accepted human communications. For instance, even though the nontraditional students have different areas of study, the shared educational experiences may be similar across the shared student body. The fact that the nontraditional students appear to have higher levels of OSE suggest that they already have stronger internal levels of OSE already, which may have led to their pursuit of further education, and older employees may have less patience with incompetent or uneducated managers. Finally, the cross-tabulation of males and females and their answers to being leaders in their organization revealed mixed results. Since the results revealed that males and females have similar measurements of their means and standard deviations (males, $M$=0.49, $SD$=.50: females, $M$=0.46, $SD$=.74), then seeing the differences in frequencies would provide an understanding of the other figures.

In this case, the results revealed that leadership among males and females was not indicative of sample size or gender numbers. Research indicates that gender does not influence leadership: however, the focus on OSE improvement coming from improved emotions (Lu et al.,

2018; Sahinidis & Bouris, 2008), positive communications and relationships (Kammeyer-Mueller et al., 2013; Mayfield & Mayfield, 2012), and continued feedback with the organization (Gil & Mataveli, 2017) does help employees improve with better leaders. Therefore, better leaders, teams, and individuals may help grow OSE levels, but those OSE levels help improve job performance of the individual, which in turn aids teams, leaders, and organizations.

## Applications to Practice for HRD

For HRD personnel and practitioners, the use of OSE levels can be helpful in aiding training and feedback measures for employees. However, understanding how to use OSE can also mean helping employees build confidence with new tasks, work on new KSAs toward promotions, and encourage new training and building relationships in order to help employees become more skilled and engaged with their organizations. Skilled employees will help the organizations improve, and more engaged employees will continue patterns of growth for promotion or for future career goals.

HRD personnel and practitioners must also recognize that low measurable levels of OSE can also lead to problems, such as workplace ostracism (De Clercq et al., 2019), inability to vocalize opinions about workplace matters (Dedahanov et al., 2018), employee cynicism (Khalid, 2018), and organizational disengagement (Consiglio et al., 2016). Research shows that low levels of OSE are seen with poor self-esteem, even manifesting in concepts such as imposter syndrome (Vergauwe et al., 2015) or poor work relationships and workplace ostracism (Kammeyer-Mueller et al., 2013). These lower levels can affect employee performance, even when the immediate issues are not work-related (Chan et al., 2016). In fact, these low levels can cause problems with employee career tenure (De Clercq et al., 2019).

Different systems of OSE-related skills can affect employee OSE levels. First, finding measurable levels of OSE is needed when deciding to add these concepts to training and employee analysis (Cherian & Jacob, 2013), which would mean finding a base level to compare to employee growth and achievement (Lyons & Bandura, 2018). That base level is usually assumed by organizational personnel, unless it was specific to training or performance measurable. Generally, unmeasurable OSE levels are influenced and connected by confidence and self-directed performance levels (Çetin & Aşkun, 2018), which has also been measured through motivation and self-management (Seo & Ilies, 2009). Employee perceptions of OSE, and their levels, can change depending on work environment (Chaudhary et al., 2013), home environment, (Chan et al., 2016) specified training (Guan & Frenkel, 2019) or transfer of that training (Bhatti et al., 2013), as well as other factors. These levels might also be dependent on job types and career steps or promotions (De Clerq et al., 2019). Therefore, although OSE levels may not appear to have changed much in the results from Table 5, these results show support to the Research Question and to the literature. In fact, the various levels and their effects can cause problems if not addressed. New research also supports HR practitioners in this cause. Guan and Frenkel (2019) explain the importance of HR, particularly when connected to management, is necessary to continually grow employees and improve training measures as part of a larger plan. Helping employees become engaged with their KSAs or careers aids employee growth and trust across different layers of hierarchy (Chaudhary et al., 2012). As OSE levels can be grown and manipulated with different demographics, HR practitioners can employ the help of older employees to aid younger employee growth (Lyons & Bandura, 2018). These levels can also be tested and grown with new employees when trying place these workers for career growth or new positions within the organization (Lyons & Bandura, 2018). Helping employees gain positive

relationships with leaders and coworkers will also aid in gaining employee support and employee-organizational loyalty (Yoon et al., 2018; Yoon & Kayes, 2016). Finally, helping employees perceive training or other measures as useful will also gain their trust and grow their skills (Schwoerer et al., 2005) and career tenure (Spurk & Abele, 2014). By helping employees grow, gain positive relationships, and improving organizational support, HR practitioners can use the concepts of OSE in order to improve their place of employment.

## Recommendations for Future Study

Continuing to study how OSE measurements aid employee growth, such as with a construction-related survey (Lorente et al., 2011), will help HR researchers and practitioners in analyzing and utilizing OSE concepts. There are more demographic factors that can be supported with research (Byars-Winston et al., 2017). Even researchers from different industries, such as manufacturing (Khalid, 2018), banking (Tsai et al., 2011), and law enforcement (Chen & Kao, 2011), are investigating this concept and its uses. Additional research could also develop surveys or use supportive relationships to improve their employees' behaviors and other KSAs (Park et al., 2018), including work/life balance (Chan et al., 2016), and the further impacts of employee generational differences (Chiesa et al., 2016). Finally, more input can be analyzed to help older workers, particularly those who would be able to mentor younger employees (Lyons & Bandura, 2018). Therefore, the connections between OSE and other factors may be useful for further use in different industries or work settings.

## REFERENCES


Abele, A. E., & Spurk, D. (2009). The longitudinal impact of self-efficacy and career goals on objective and subjective career success. *Journal of Vocational Behavior*, *74*(1), 53–62. https://doi.org/10.1016/j.jvb.2008.10.005

Ahlin, B., Drnovšek, M., & Hisrich, R. D. (2014). Entrepreneurs' creativity and firm innovation: the moderating role of entrepreneurial self-efficacy. *Small Business Economics*, 43(1), 101–117. https://doi.org/10.1007/s11187-013-9531-7

Bandura, A. (1994). "Self-efficacy", in Ramachandran, V.S. (Eds), *Encyclopedia of Human Behavior, 4.* San Diego, CA: Academic Press. 71-81.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, *52*, 28.

Beeftink, F., Van Eerde, W., Rutte, C. G., & Bertrand, J. W. M. (2012). Being successful in a creative profession: The role of innovative cognitive style, self-regulation, and self-efficacy. *Journal of Business and Psychology*, 27(1), 71–81. https://doi.org/10.1007/s10869-011-9214-9

Bhatti, M. A., Battour, M. M., Sundram, V., & Othman, A. (2013). Transfer of training: Does it truly happen? An examination of support, instrumentality, retention and learner readiness on the transfer motivation and transfer of training. *European Journal of Training and Development*, *37*(3), 273–297. https://doi.org/10.1108/03090591311312741

Bhatti, M., & Kaur, S. (2010). The role of individual and training design factors on training transfer. *Journal of European Industrial Training*, 34(7), 656–672. https://doi.org/10.1108/03090591011070770

Black, J., Kim, K., Rhee, S., Wang, K., & Sakchutchawan, S. (2019). Self-efficacy and emotional intelligence: Influencing team cohesion to enhance team performance. *Team Performance Management: An International Journal*, *25*(1), 100–119. https://doi.org/10.1108/TPM-01-2018-0005

Byars-Winston, A., Diestelmann, J., Savoy, J. N., & Hoyt, W. T. (2017). Unique effects and moderators of effects of sources on self-efficacy: A model-based meta-analysis. *Journal of Counseling Psychology*, *64*(6), 645–658. https://doi.org/10.1037/cou0000219

Çetin, F., & Aşkun, D. (2018). The effect of occupational self-efficacy on work performance through intrinsic work motivation. *Management Research Review*, *41*(2), 186–201. https://doi.org/10.1108/MRR-03-2017-0062

Chan, X. W., Kalliath, T., Brough, P., Siu, O.-L., O'Driscoll, M. P., & Timms, C. (2016). Work–family enrichment and satisfaction: The mediating role of self-efficacy and work–life balance. *The International Journal of Human Resource Management*, 27(15), 1755–1776. https://doi.org/10.1080/09585192.2015.1075574

Chaudhary, R., Rangnekar, S., & Barua, M. K. (2012). HRD climate, occupational self-efficacy and work engagement: A study from India. *The Psychologist-Manager Journal*, 15(2), 86–105. https://doi.org/10.1080/10887156.2012.676938

Chaudhary, R., Rangnekar, S., & Barua, M. K. (2013). Engaged versus disengaged: The Role of occupational self-efficacy. *Asian Academy of Management Journal, 18*(1), 91-108.

Chen, C.-H. V., & Kao, R.-H. (2011). A multilevel study on the relationships between work characteristics, self- efficacy, collective efficacy, and organizational citizenship behavior: The case of Taiwanese police duty-executing organizations. *The Journal of Psychology, 145*(4), 361–390. https://doi.org/10.1080/00223980.2011.574168

Cherian, J., & Jacob, J. (2013). Impact of self efficacy on motivation and performance of employees. *International Journal of Business and Management, 8*(14), 80–88. https://doi.org/10.5539/ijbm.v8n14p80

Chiesa, R., Toderi, S., Dordoni, P., Henkens, K., Fiabane, E. M., & Setti, I. (2016). Older workers: Stereotypes and occupational self-efficacy. *Journal of Managerial Psychology*, 31(7), 1152–1166. https://doi.org/10.1108/JMP-11-2015-0390

Consiglio, C., Borgogni, L., Di Tecco, C., & Schaufeli, W. B. (2016). What makes employees engaged with their work? The role of self-efficacy and employee's perceptions of social context over time. *Career Development International*, *21*(2), 125–143. https://doi.org/10.1108/CDI-03-2015-0045

De Clercq, D., Haq, I. U., & Azeem, M. U. (2019). Workplace ostracism and job performance: Roles of self-efficacy and job level. *Personnel Review*, *48*(1), 184–203. https://doi.org/10.1108/PR-02-2017-0039

Dedahanov, A. T., Rhee, C., & Gapurjanova, N. (2018). Job autonomy and employee voice: Is work-related self-efficacy a missing link? *Management Decision*, *53*(8), 1843-1857. https://doi.org/10.1108/MD-06-2017-0607

Dillman, D.A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons.

Drnovšek, M., Wincent, J., & Cardon, M. S. (2010). Entrepreneurial self-efficacy and business start-up: Developing a multi-dimensional definition. *International Journal of Entrepreneurial Behavior & Research, 16*(4). 329-348. https://doi.org/10.1108/13552551011054516

Füllemann, D., Jenny, G. J., Brauchli, R., & Bauer, G. F. (2015). The key role of shared participation in changing occupational self-efficacy through stress management courses. *Journal of Occupational and Organizational Psychology, 88*(3), 490–510. https://doi.org/10.1111/joop.12124

Germain, M.-L., & Grenier, R. S. (2015). Facilitating workplace learning and change: Lessons learned from the lectores in pre-war cigar factories. *Journal of Workplace Learning, 27*(5), 366–386. https://doi.org/10.1108/JWL-03-2013-0017

Gil, A. J., & Mataveli, M. (2017). Learning processes and job satisfaction in the Spanish wine sector: The moderating effect of organizational size and employees' educational level. Personnel Review, 46(3), 624–643. https://doi.org/10.1108/PR-01-2015-0013

Gocłowska, M. A., Aldhobaiban, N., Elliot, A. J., Murayama, K., Kobeisy, A., & Abdelaziz, A. (2017). Temperament and self-based correlates of cooperative, competitive and individualistic learning preferences: Cooperative, competitive, and individualistic learning. *International Journal of Psychology, 52*(3), 180–188. https://doi.org/10.1002/ijop.12206

Greenhalgh, L., & Rosenblatt, Z. (2010). Evolution of research on job insecurity. *International Studies of Management & Organization*, *40*(1), 6–19. https://doi.org/10.2753/IMO0020-8825400101

Gregersen, S., Vincent-Höper, S., & Nienhaus, A. (2014). The relation between leadership and perceived well-being: What role does occupational self-efficacy play? *Journal of Leadership Studies*, *8*(2), 6–18. https://doi.org/10.1002/jls.21318

Guan, X., & Frenkel, S. (2019). How perceptions of training impact employee performance: Evidence from two Chinese manufacturing firms. *Personnel Review*, 48(1), 163–183. https://doi.org/10.1108/PR-05-2017-0141

Holden, G., Barker, K., Kuppens, S., & Rosenberg, G. (2017). Self-efficacy regarding social work competencies. *Research on Social Work Practice*, *27*(5), 594–606. https://doi.org/10.1177/1049731515586466

Huang, C. (2013). Gender differences in academic self-efficacy: A meta-analysis. *European Journal of Psychology of Education, 28*(1), 1-35. https://doi.org/10.1007/s10212-011-0097-y

Hwang, Y., Lee, Y., & Shin, D.-H. (2016). The role of goal awareness and information technology self-efficacy on job satisfaction of healthcare system users. *Behaviour & Information Technology*, *35*(7), 548–558. https://doi.org/10.1080/ 0144929X. 2016.1171396

Iqbal, K., & Dastgeer, G. (2017). Impact of self-efficacy and retention on transfer of training: The mediating role of motivation to transfer. *Journal of Management Development, 36*(10), 1270–1282. https://doi.org/10.1108/JMD-06-2015-0087

Jani, A. (2011). Escalation of commitment in troubled IT projects: Influence of project risk factors and self-efficacy on the perception of risk and the commitment to a failing project. *International Journal of Project Management, 29*(7), 934-945. doi:10.1016/j.ijproman.2010.08.004

Jiang, Z., Hu, X., & Wang, Z. (2018). Career adaptability and plateaus: The moderating effects of tenure and job self-efficacy. *Journal of Vocational Behavior, 104*, 59–71. https://doi.org/10.1016/j.jvb.2017.10.006

Jungert, T., Koestner, R. F., Houlfort, N., & Schattke, K. (2013). Distinguishing source of autonomy support in relation to workers' motivation and self-efficacy. *The Journal of Social Psychology, 153*(6), 651–666. https://doi.org/10.1080/00224545.2013.806292

Kammeyer-Mueller, J., Wanberg, C., Rubenstein, A., & Song, Z. (2013). Support, undermining, and newcomer socialization: Fitting in during the first 90 Days. *Academy of Management Journal, 56*(4), 1104–1124. https://doi.org/10.5465/amj.2010.0791

Kao, R.-H. (2017). Task-oriented work characteristics, self-efficacy, and service-oriented organizational citizenship behavior. *Personnel Review, 46*(4), 718-739, https://doi.org/10.1108/PR-08-2015-0234.

Khalid, K. (2018). The importance of occupational self-efficacy moderation on the organizational cynicism forms and employee task and contextual performance relationships. *Asia Proceedings of Social Sciences, 2*(3), 67–71. https://doi.org/ 10.31580/apss.v2i3.268

Kim, H. S., & Park, I.-J. (2017). Influence of proactive personality on career self-efficacy. *Journal of Employment Counseling, 54*(4), 168–182. https://doi.org/10.1002/joec.12065.

Liu, J., Cho, S., & Putra, E. D. (2017). The moderating effect of self-efficacy and gender on work engagement for restaurant employees in the United States. *International Journal of Contemporary Hospitality Management, 29*(1), 624–642. https://doi.org/10.1108/IJCHM-10-2015-0539

Loomba, A. P. S., & Karsten, R. (2019). Self-efficacy's role in success of quality training programmes. *Industrial and Commercial Training*, *51*(1), 24–39. https://doi.org/10.1108/ICT-06-2018-0058

Lorente, L., Salanova, M., & Martínez, I. (2011). Developing a Job-Related Self-Efficacy Scale Among Construction Workers. *Revista Interamericana de Psicología Ocupacional*, 30(2), 12.

Lu, X., Xie, B., & Guo, Y. (2018). The trickle-down of work engagement from leader to follower: The roles of optimism and self-efficacy. *Journal of Business Research*, *84*, 186–195. https://doi.org/10.1016/j.jbusres.2017.11.014

Lyons, P. R., & Bandura, R. P. (2018). Self-efficacy measure may enhance your recruitment and placement efforts. *Human Resource Management International Digest*, *26*(3), 35–37. https://doi.org/10.1108/HRMID-03-2018-0043

Lyons, P., & Bandura, R. (2018). Self-efficacy: Core of employee success. *Development and Learning in Organizations: An International Journal*. https://doi.org/10.1108/DLO-04-2018-0045

Malik, M. A. R., Butt, A. N., & Choi, J. N. (2015). Rewards and employee creative performance: Moderating effects of creative self-efficacy, reward importance, and locus of control: Moderators of the Rewards-Creativity Relationship. *Journal of Organizational Behavior*, 36(1), 59–74. https://doi.org/10.1002/job.1943

Mayfield, J., & Mayfield, M. (2012). The relationship between leader motivating language and self-efficacy: A partial least squares model analysis. *Journal of Business Communication*, *49*(4), 357–376. https://doi.org/10.1177/0021943612456036

McKee, M. R., Allen, J. M., & Tamez, R. (2014). The effect of mobile support devices on the anxiety and self-efficacy of hospital float staff. *Performance Improvement Quarterly*, *27*(2), 59–81. https://doi.org/10.1002/piq.21171

Mosley, D. C., Boyar, S. L., Carson, C. M., & Pearson, A. W. (2008). A Production self-efficacy scale: An exploratory study. *Journal of Managerial Issues*, *20*(2), 272–285.

Nafari, N., & Vatankhah, S. (2016). Investigating the Effect of Empowerment on Employees' Occupational Self-Efficacy. *Bulletin de La Société Royale Des Sciences de Liège*, 85, 14.

Nauta, M. M., Liu, C., & Li, C. (2010). A cross-national examination of self-efficacy as a moderator of autonomy/job strain relationships. *Applied Psychology*, *59*(1), 159–179. https://doi.org/10.1111/j.1464-0597.2008.00375.x

Pituch, K.A., & Stevens, J. (2016). *Applied multivariate statistics for social sciences* (6th ed.). Hillsdale, N.J.: Lawrence Erlbaum Publishers.

Renta-Davids, A.-I., Jiménez-González, J.-M., Fandos-Garrido, M., & González-Soto, Á.-P. (2014). Transfer of learning: Motivation, training design and learning-conducive work effects. *European Journal of Training and Development*, *38*(8), 728–744. https://doi.org/10.1108/EJTD-03-2014-0026

Rigotti, T., Schyns, B., & Mohr, G. (2008). A Short Version of the Occupational Self-Efficacy Scale: Structural and Construct Validity Across Five Countries. *Journal of Career Assessment*, *16*(2), 238–255. https://doi.org/10.1177/1069072707305763

Sahinidis, A. G., & Bouris, J. (2008). Employee perceived training effectiveness relationship to employee attitudes. *Journal of European Industrial Training*, *32*(1), 63–76. https://doi.org/10.1108/03090590810846575

Schwoerer, C. E., May, D. R., Hollensbe, E. C., & Mencl, J. (2005). General and specific self-efficacy in the context of a training intervention to enhance performance expectancy. *Human Resource Development Quarterly*, *16*(1), 111–129. https://doi.org/10.1002/hrdq.1126

Schyns, B., & Sczesny, S. (2010). Leadership attributes valence in self-concept and occupational self-efficacy. *Career Development International*, *15*(1), 78–92. https://doi.org/10.1108/13620431011020907

Schyns, B., & von Collani, G. (2002). A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. *European Journal of Work and Organizational Psychology*, *11*(2), 219–241.https://doi.org/10.1080/13594320244000148

Seo, M., & Ilies, R. (2009). The role of self-efficacy, goal, and affect in dynamic motivational self-regulation. *Organizational Behavior and Human Decision Processes*, *109*(2), 120–133. https://doi.org/10.1016/j.obhdp.2009.03.001

Shantz, A., Alfes, K., & Latham, G. P. (2016). The buffering effect of perceived organizational support on the relationship between work engagement and behavioral outcomes. *Human Resource Management*, *55*(1), 25–38. https://doi.org/10.1002/hrm.21653

Sheu, H.-B., Lent, R. W., Miller, M. J., Penn, L. T., Cusick, M. E., & Truong, N. N. (2018). Sources of self-efficacy and outcome expectations in science, technology, engineering, and mathematics domains: A meta-analysis. *Journal of Vocational Behavior*, *109*, 118–136. https://doi.org/10.1016/j.jvb.2018.10.003

Spickard, J. V. (2016). *Research Methods: Design to Data Analysis in 6 Steps*. Los Angeles, CA: Sage Publications.

Spurk, D., & Abele, A. E. (2014). Synchronous and time-lagged effects between occupational self-efficacy and objective and subjective career success: Findings from a four-wave and 9-year longitudinal study. *Journal of Vocational Behavior*, *84*(2), 119–132. https://doi.org/10.1016/j.jvb.2013.12.002

Tims, M., Bakker, B. A., & Derks, D. (2014). Daily job crafting and the self-efficacy – performance relationship. *Journal of Managerial Psychology*, *29*(5), 490–507. https://doi.org/10.1108/JMP-05-2012-0148

Tsai, M.-T., Tsai, C.-L., & Wang, Y.-C. (2011). A study on the relationship between leadership style, emotional intelligence, self-efficacy and organizational commitment: A case study of the Banking Industry in Taiwan. *African Journal of Business Management, 5*(13). 5319-5329. https://doi.org/10.5897/AJBM10.932.

Vergauwe, J., Wille, B., Feys, M., De Fruyt, F., & Anseel, F. (2015). Fear of being exposed: The trait-relatedness of the impostor phenomenon and its relevance in the work context. *Journal of Business and Psychology*, *30*(3), 565–581. https://doi.org/10.1007/s10869-014-9382-5

Yoon, D.-Y., Han, S., Sung, M., & Cho, J. (2018). Informal learning, organizational commitment and self-efficacy: A study of a structural equation model exploring mediation. *Journal of Workplace Learning*, *30*(8), 640–657. https://doi.org/10.1108/JWL-02-2018-0034

Yoon, J., & Kayes, D. C. (2016). Employees' self-efficacy and perception of individual learning in teams: The cross-level moderating role of team-learning behavior. *Journal of Organizational Behavior*, *37*(7), 1044–1060. https://doi.org/10.1002/job.2092

Zhang, Y., Cui, L., Zhang, G., Sarasvathy, S., & Anusha, R. (2019). An exploratory study of antecedents of entrepreneurial decision-making logics: The role of self-efficacy,

optimism, and perspective taking. *Emerging Markets Finance and Trade*, *55*(4), 781–794. https://doi.org/10.1080/1540496X.2018.1478283

## APPENDIX A

## QUESTIONNAIRE

***THE IMPACT OF OCCUPATIONAL SELF-EFFICACY ON JOB PERFORMANCE***

Informed Consent Form

You are being invited to participate in a research study. This study aims to find out various effects of occupational self-efficacy (OSE) in the workplace. OSE is a term used to describe how your motivation and confidence influence your daily activities. In this study, the principal investigators wish to study the levels of OSE concepts as seen in the workplace, how these levels are measured currently, and if there is a relationship between your OSE and job performance. The way you can help me with these questions is through an anonymous survey, which should take about 5 to 10 minutes.

Some reasons you might want to participate in this research are learning about how your job performance would be aided by your motivation and confidence. Also, you would gain some insight into how your job performance would be improved by past analysis of performance. Some reasons you might not want to participate in this research would involve thinking about poor past performance, or not seeing value in analyzing past performance.

The choice to participate or not is yours; participation is entirely voluntary. You also can choose to answer or not answer any question you like, and can exit the survey if you wish to stop participating. No one will know whether you participated or not.

The survey asks questions about your past performance at your job, whether through workplace discussion with leaders or coworkers, performance reviews, or specific feedback. Other questions involve demographic inquiry for data analysis, as well as studying your personal analysis of your confidence and motivation levels. You have been asked to participate in this research because you are an online student taking classes within the College of Technology at Indiana State University. If you are not working full-time or part-time, you will be excluded from the study.

Although every effort will be made to protect your answers, complete anonymity cannot be guaranteed over the Internet. There is limited probability of harm or discomfort by participating in this study.

It is unlikely that you will benefit directly by participating in this study, but the research results may benefit HR practitioners who are studying how to improve the job performance and OSE of their employees.

If you have any questions, please contact Kaeley Tener (the principal investigator), at 10500 Louisville Rd., Terre Haute, phone number (812-230-6138), and e-mail address at kplank@ sycamores.indstate.edu, or the co-principal investigator, Dr. Cindy Crowder, at Cindy.Crowder@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

I understand the procedures described above. My questions have been answered to my satisfaction. By clicking “Yes” on the selection below, I agree to participate in this study.

IRBNet #: 1479755-2
Approved Date: February 24, 2020
Expiration Date:
Indiana State University Institutional Review Board

- ○ Yes (1)
- ○ No (2)

Q1 What is your age (as of your birthday in the year 2020)?

- 18-23 (1)
- 24-39 (2)
- 40-55 (3)
- 56-74 (4)
- 75 or older (5)

Page Break

Q2 With what gender do you identify?

- ○ Male (1)
- ○ Female (2)
- ○ Other (4)
- ○ Prefer Not to Answer (3)

Page Break

Q3 What is your highest completed educational level?

- ○ High school/GED (1)
- ○ Associate (2)
- ○ Bachelor's (3)
- ○ Master's (4)
- ○ PhD (5)

Page Break

Q4 Have you had any working experience?

- ○ Yes (1)
- ○ No (2)

*Skip To: End of Survey If Q4 = No*

Page Break

Q5 Have you worked full time or part time?

- ○ Full-Time Only (1)
- ○ Part-Time Only (2)
- ○ Both (3)

Page Break

Q6 What is the amount of time you have worked at the current organization?

- ○ 0 months to 6 months (1)
- ○ 7 months to 11 months (2)
- ○ 1 year to 5 years (3)
- ○ 6 years to 10 years (4)
- ○ 11 years to 15 years (5)
- ○ 16 years to 20 years (6)
- ○ +20 years (7)

Page Break

Q7 What industry do you or did you work for (taken from The North American Industry Classification System, 2017)?

- ○ Accommodation and Food/Hospitality (1)
- ○ Administration/Company Management (2)
- ○ Arts & Entertainment (3)
- ○ Construction (4)
- ○ Educational Services (5)
- ○ Financial Services (6)
- ○ Healthcare/Social Assistance (7)
- ○ Information Services/Professional, Scientific, and Technical Services (8)
- ○ Manufacturing (9)
- ○ Natural Resources (Agriculture, Forestry, and Fishing/Mining, natural mineral, and gas extraction) (10)
- ○ Public Administration (11)
- ○ Real Estate Services (12)
- ○ Trade (Retail/Wholesale/Etc.) (13)
- ○ Transportation (14)
- ○ Utilities (15)
- ○ Other: (16) _____

---

Q8 Are you in a leadership position at this time?

- ○ Yes (1)
- ○ No (4)

---

Q9 II. Occupational Self-Efficacy Questions

This portion of the questionnaire is to examine how well you handle day-to-day tasks. Please read and follow all questions carefully. Based on your current or previous work experience, please fill in the circle of the number that most likely matches your answer.

| | Completely True (1) (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | Not At All True (6) (6) |
|---|---|---|---|---|---|---|
| Thanks to my resourcefulness, I know how to handle unforeseen situations in my job. (1) | ○ | ○ | ○ | ○ | ○ | ○ |
| If I am in trouble at my work, I can usually think of something to do. (2) | ○ | ○ | ○ | ○ | ○ | ○ |
| I can remain calm when facing difficulties in my job because I can rely on my abilities. (3) | ○ | ○ | ○ | ○ | ○ | ○ |
| When I am confronted with a problem in my job, I can usually find several solutions. (4) | ○ | ○ | ○ | ○ | ○ | ○ |
| No matter what comes my way in my job, I'm usually able to handle it. (5) | ○ | ○ | ○ | ○ | ○ | ○ |
| Please select number 3. (6) | ○ | ○ | ○ | ○ | ○ | ○ |

Q9 II. Occupational Self-Efficacy Questions Cont.

| | Completely True (1) (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | Not At All True (6) (6) |
|---|---|---|---|---|---|---|
| My past experiences in my job have prepared me well for my occupational future. (7) | ○ | ○ | ○ | ○ | ○ | ○ |
| I meet the goals that I set for myself in my job. (8) | ○ | ○ | ○ | ○ | ○ | ○ |
| I feel prepared to meet most of the demands in my job. (9) | ○ | ○ | ○ | ○ | ○ | ○ |

Page Break

Q10 III. Performance Analysis Questions

Please read the instructions and follow them carefully. These questions study your opinion of your overall performance. Based on your current or previous work experience, please fill in the circle of the number that most likely matches your answer.

| | Completely True (1) (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | Not At All True (6) (6) |
|---|---|---|---|---|---|---|
| I pass my performance evaluations every time. (1) | ○ | ○ | ○ | ○ | ○ | ○ |
| I receive explanations for my evaluation scores. (2) | ○ | ○ | ○ | ○ | ○ | ○ |
| After the evaluation was over, I received suggestions on improving my score. (3) | ○ | ○ | ○ | ○ | ○ | ○ |
| Please select number 3. (4) | ○ | ○ | ○ | ○ | ○ | ○ |
| After the evaluation was over, I received further training for improving my score. (5) | ○ | ○ | ○ | ○ | ○ | ○ |

Q10 III. Performance Analysis Questions Cont.

| | Completely True (1) (1) | 2 (2) | 3 (3) | 4 (4) | 5 (5) | Not At All True (6) (6) |
|---|---|---|---|---|---|---|
| The provided feedback improved my next evaluation score. (6) | ○ | ○ | ○ | ○ | ○ | ○ |

**End of Block: Block 1**

## APPENDIX B

## PERMISSION DOCUMENTATION

RE: Permission for Occupational Self-Efficacy Survey?

Birgit SCHYNS <birgit.schyns@neoma-bs.fr>
Fri 5/24/2019 7:36 AM
To: Kaeley Tener <kplank@sycamores.indstate.edu>
Cc: collani@rz.uni-leipzig.de <collani@rz.uni-leipzig.de>

**CAUTION: This message originated from outside of Indiana State University. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Dear Kaeley
Thanks for your message.
Yes, you can use the instrument. We would indeed be interested in your results.
Kind regards and all the best for your studies, Birgit

## APPENDIX C

## EMAIL INVITATION

Hello, all participants!

You are being invited to participate in a research study. This study aims to find out various effects of occupational self-efficacy (OSE) in the workplace. OSE is a term used to describe how your motivation and confidence influence your daily activities. In this study, the principal investigators wish to study the levels of OSE concepts as seen in the workplace, how these levels are measured currently, and if there is a relationship between your OSE and job performance. The way you can help me with these questions is through an anonymous survey, which should take about 5 to 10 minutes.

Some reasons you might want to participate in this research are learning about how your job performance would be aided by your motivation and confidence. Also, you would gain some insight into how your job performance would be improved by past analysis of performance. Some reasons you might not want to participate in this research would involve thinking about poor past performance, or not seeing value in analyzing past performance.

The choice to participate or not is yours; participation is entirely voluntary. You also can choose to answer or not answer any question you like, and can exit the survey if you wish to stop participating. No one will know whether you participated or not.

The survey asks questions about your past performance at your job, whether through workplace discussion with leaders or coworkers, performance reviews, or specific feedback. Other questions involve demographic inquiry for data analysis, as well as studying your personal analysis of your confidence and motivation levels. You have been asked to participate in this research because you are an online student taking classes within the College of Technology at Indiana State University. If you are not working full-time or part-time, you will be excluded from the study.

Although every effort will be made to protect your answers, complete anonymity cannot be guaranteed over the Internet. There is limited probability of harm or discomfort by participating in this study.

It is unlikely that you will benefit directly by participating in this study, but the research results may benefit HR practitioners who are studying how to improve the job performance and OSE of their employees.

If you have any questions, please contact Kaeley Tener (the principal investigator), at 10500 Louisville Rd., Terre Haute, phone number (812-230-6138), and e-mail address at kplank@ sycamores.indstate.edu, or the co-principal investigator, Dr. Cindy Crowder, at Cindy.Crowder@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

I understand the procedures described above. My questions have been answered to my satisfaction. By clicking “Yes” on the selection below, I agree to participate in this study.

IRBNet #: 1479755-2
Approved Date: February 24, 2020
Expiration Date:
Indiana State University Institutional Review Board

## APPENDIX D

## INFORMED CONSENT LETTER

*THE IMPACT OF OCCUPATIONAL SELF-EFFICACY ON JOB PERFORMANCE*

Hello, all participants!

You are being invited to participate in a research study. This study aims to find out various effects of occupational self-efficacy (OSE) in the workplace. OSE is a term used to describe how your motivation and confidence influence your daily activities. In this study, the principal investigators wish to study the levels of OSE concepts as seen in the workplace, how these levels are measured currently, and if there is a relationship between your OSE and job performance. The way you can help me with these questions is through an anonymous survey, which should take about 5 to 10 minutes.

Some reasons you might want to participate in this research are learning about how your job performance would be aided by your motivation and confidence. Also, you would gain some insight into how your job performance would be improved by past analysis of performance. Some reasons you might not want to participate in this research would involve thinking about poor past performance, or not seeing value in analyzing past performance.

The choice to participate or not is yours; participation is entirely voluntary. You also can choose to answer or not answer any question you like, and can exit the survey if you wish to stop participating. No one will know whether you participated or not.

The survey asks questions about your past performance at your job, whether through workplace discussion with leaders or coworkers, performance reviews, or specific feedback. Other questions involve demographic inquiry for data analysis, as well as studying your personal analysis of your confidence and motivation levels. You have been asked to participate in this research because you are an online student taking classes within the College of Technology at Indiana State University. If you are not working full-time or part-time, you will be excluded from the study.

Although every effort will be made to protect your answers, complete anonymity cannot be guaranteed over the Internet. There is limited probability of harm or discomfort by participating in this study.

It is unlikely that you will benefit directly by participating in this study, but the research results may benefit HR practitioners who are studying how to improve the job performance and OSE of their employees.

If you have any questions, please contact Kaeley Tener (the principal investigator), at 10500 Louisville Rd., Terre Haute, phone number (812-230-6138), and e-mail address at kplank@ sycamores.indstate.edu, or the co-principal investigator, Dr. Cindy Crowder, at Cindy.Crowder@indstate.edu.

If you have any questions about your rights as a research subject or if you feel you have been placed at risk, you may contact the Indiana State University Institutional Review Board

(IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-3088 or by email at irb@indstate.edu.

I understand the procedures described above. My questions have been answered to my satisfaction. By clicking "Yes" on the selection below, I agree to participate in this study.

IRBNet #: 1479755-2
Approved Date: February 24, 2020
Expiration Date:
Indiana State University Institutional Review Board

## APPENDIX E

## FREQUENCY CHARTS FOR OCCUPATIONAL SELF-EFFICACY SCALE

The questions were taken from the Occupational Self-Efficacy Scale (Schyns & von Collani, 2002), which show the totals and percentages.

*OSE Occupational Self-Efficacy Totals and Frequencies*

| OSE Frequencies | Ranking | Totals | Percentages |
|---|---|---|---|
| 1 –Resourcefulness | Completely True | **57** | **51.4%** |
| | 2 | **37** | **33.3%** |
| | 3 | 14 | 12.6% |
| | 4 | 2 | 1.8% |
| | Not At All True | 1 | 0.9% |
| 2 – Job Trouble | Completely True | **52** | **46.8%** |
| | 2 | **46** | **41.4%** |
| | 3 | 10 | 9.0% |
| | 4 | 2 | 1.8% |
| | 5 | 1 | .9% |
| 3 Remaining Calm and Abilities | Completely True | **59** | **53.2%** |
| | 2 | **42** | **37.8%** |
| | 3 | 7 | 6.3% |
| | 4 | 2 | 1.8% |
| | Not At All True | 1 | 0.9% |
| 4 Job Problems and Solutions | Completely True | **51** | **45.9%** |
| | 2 | **48** | **43.2%** |
| | 3 | 10 | 9.0% |
| | 4 | 1 | 0.9% |
| | 5 | 1 | 0.9% |
| 5 Confidence in Job | Completely True | **56** | **50.5%** |
| | 2 | **44** | **39.6%** |
| | 3 | 10 | 9.0% |
| | 4 | 1 | 0.9% |
| 7 Past Experiences Help With Future | Completely True | **63** | **56.8%** |
| | 2 | **33** | **29.7%** |
| | 3 | 10 | 9.0% |
| | 4 | 3 | 2.7% |
| | Not At All True | 2 | 1.8% |
| 8 –Meeting Self-Made Goals | Completely True | **46** | **41.4%** |
| | 2 | **51** | **45.9%** |
| | 3 | 12 | 10.8% |
| | 4 | 2 | 1.8% |

*OSE Occupational Self-Efficacy Totals and Frequencies Cont.*

| OSE Frequencies | Ranking | Totals | Percentages |
|---|---|---|---|
| 9 Feeling Prepared for Job Demands | Completely True | **62** | **55.9%** |
| | 2 | **38** | **34.2%** |
| | 3 | 8 | 7.2% |
| | 4 | 2 | 1.8% |
| | 5 | 1 | 0.9% |