Relationship Between Training and Job Performance for Domestic and International Organizations

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RELATIONSHIP BETWEEN TRAINING AND JOB PERFORMANCE

EXECUTIVE SUMMARY

In a global economy characterized by growing international competition and an ever-increasing emphasis on human capital, companies spend in an excess of $130 billion per year on training and development programs in an effort to attract and retain the best people, increase market share, and triumph over market rivals (Training, 2015). The amount of money dedicated to the various forms of training programs demonstrate the universal understanding of training’s role in the workplace, but executives, managers, and trainers continue to question the merits of training as a means to increase individual and organizational performance. Therefore, the purpose of this research project was to conduct a research study to examine the relationship between training and job performance for U.S. and international companies. More specifically, this study compared the following subcomponents across both U.S. and international employees: (1) general satisfaction levels; (2) relationship between training and job performance for various types of training; (3) satisfaction with quality by training type; and (4) degree to which employees attribute performance levels to training received. To conduct the research study, the researcher conducted a thorough literature review and surveyed 226 Facebook users regarding their perceptions of training and job performance.

Data analysis revealed a strong positive relationship between employer-provided training and job performance as self-reported by survey participants. Responses indicated high levels of satisfaction with diverse aspects of training, high levels of satisfaction with regards to quality, and a widespread belief that training provided by their employers has and will continue to increase job performance. Data further indicated no significant difference in this relationship for U.S. and international employees. The one disparity between the literature review and this study involved whether learner performance varies with training method or type. The literature stated
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little or no statistical difference in learner performance for in-person and virtual courses, but the responses to the survey indicated very low satisfaction with training methods which lack interaction and collaboration. The cause of this difference is recommended as an essential future research topic.

This study provided three recommendations for senior executives and top management of domestic and international organizations. First, management should ensure training is viewed as a profit center not an expense by aligning organizational training spending with industry averages. Secondly, executives and managers should reevaluate the use of computer-based training and self-study training materials to prevent overuse for the sake of saving money and ensure the implementation of design changes focused on making virtual courses more interactive. Lastly, senior management must allocate the necessary manpower and financial resources to ensure virtual and blended training courses are developed specifically to increase performance.
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Chapter 1: Problem Definition

Background

Employee training and development is widely considered to be an essential element of organizational success. Organizations of all types and sizes, from large, profit-driven corporations to medium-sized non-profits to small businesses, tout the importance of training and developing human capital in a number of ways. Google, for example, has instituted GoogleEDU, a learning and leadership-development program focused on teaching “employees what they need to know to keep profits humming” (Walker, 2012). However, the most definitive evidence of the near universal acceptance of training’s role in determining success is the amount of money companies and organizations continue to spend on training. According to 2015 Training Industry Report published by Training (2015), training expenditures by United States-based organizations alone totaled a staggering $70.6 billion which represents a 33.7% percent increase over the $52.8 billion spent only five years earlier in 2010. Viewed from a global perspective, total training expenditures exceed $130 billion, an amount which happens to be greater than the reported annual gross domestic product for nations such as Guatemala, Serbia, and Jordan (Bersin, 2014; Central Intelligence Agency, 2016). In a nutshell, training and development programs represent a large portion of organizational spending and are often credited as a key, if not the key, to organizational success.

The underlying assumption regarding training and development is that both individual and collective performance improves when organizations train their people, resulting in a myriad of organizational benefits including increased productivity, greater revenue and profit margins, and larger market share. This sentiment has been expressed by numerous leading management experts including former CEO of General Electric Jack Welch purportedly stated: “An
organization’s ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage” (Cuccureddu, 2013). The problem is that many managers, experts, and scholars question the absolute link between training and development programs and the type of organizational learning that delivers competitive advantage. They recognize that training has the potential to deliver unparalleled advantageous results, but they worry that current training programs do not equip employees with the knowledge, skills, and attributes (KSAs) required to improve organizational performance. This unease concerning the degree to which employee training contributes to improved performance is further exacerbated when cross-cultural and international factors are considered. Companies, both those which are domestically and internationally focused, appear to be guilty of investing in training with nothing more than a hope of performance improvements. Organizations have employed a variety of methods to measure training transfer and return on investment, but there appears to be no universally-accepted method to do so.

**Research Problem**

Despite the substantial investment in organizational training, it was not known to what extent training affects the job performance of employees. Furthermore, it was not known which types or methods of training most effectively improve job performance and whether this relationship varies for domestic and international organizations. Specifically, this research examined whether there is a difference in the relationship between training and job performance for domestic and international employees as self-reported on an anonymous online survey. The primary research question was: *What effect does training have on job performance and does this relationship differ for international and domestic companies?* This primary problem was studied through the systematic analysis of a series of sub-problems:
1. Are employees generally satisfied with the training offered by their current employer and do employee satisfaction levels differ for domestic and international organizations?

2. Does the relationship between training and job performance differ for the various types of training and does this relationship differ for domestic and international organizations?

3. Are employees satisfied with the quality of training offered by their employer and do employee satisfaction levels differ for domestic and international organizations?

4. To what degree do employees attribute their level of performance in their current position to the training they have received and do attribution levels differ for domestic and international organizations?

**Research Audience and Rationale**

The intended audience for this research project was senior executives and top management of domestic and international organizations. Senior leaders collectively manage every employee within their respective companies and are best positioned to affect change to existing attitudes and policies. Results of this research are available to interested parties in order to inform and educate senior leadership of the degree to which training affects how employees perform their duties and responsibilities and whether this relationship varies for U.S. and international employees. Most importantly, this study provides insights and recommendations, resulting from data analysis and the literature review, proposing specific actions senior management can take to increase the quality of training and thus improve individual and organizational performance.
Research Study Scope/Delimitations

The researcher originally attempted to conduct this research study on the Air Force Life Cycle Management Center (AFLCMC) Foreign Military Sales (FMS) civilian workforce stationed at Wright-Patterson Air Force Base in order to advise AFLCMC about the relationship between training and job performance for FMS personnel. However, due to policy and regulation restrictions regarding the use of surveys to gather data from Air Force personnel, the researcher was compelled to revise the proposed research project to study the same relationship among the general population. The researcher remains hopeful that this research can be generalized to apply to AFLCMC training methodology, but openly acknowledges that the modified study was unable to account for the distinctive factors unique to the manner in which AFLCMC trains and develops its FMS civilian workforce.

The data collected for this study is inherently subjective as it was based upon the judgments of individual employees at a single point in time and not on objective empirical data such as post-training knowledge/skills tests or a comparison of performance ratings before and after training. It should be noted that this type of self-reporting can result in exaggerated responses, the omission of relevant information due to the respondents’ memory, or inaccurate information due to the respondents’ desire to present themselves in a socially acceptable manner. Furthermore, data quality was subject to the extent which respondents cared about and concentrated on the survey and especially their respective mood when the survey was completed. No attempt was made by the researcher to conduct post-training knowledge or skills assessments due to time, permission, and resource constraints.
Chapter 2: Review of the Related Literature

Introduction to the Literature

The majority of organizations have some sort of training program focused on increasing the effectiveness, productivity, and performance of its members. Most experts believe that organizations which invest in human capital are the same organizations which survive and prosper. However, many executives, trainers, and employees continue to examine the overall effectiveness of employee training programs at improving individual and organizational performance and increasing firm effectiveness and bottom-line profitability.

This chapter reviewed training and development studies, job performance studies, and training and job performance studies with an emphasis on current literature. This literature review included sources from books, research studies, peer-reviewed journals, news sources and websites. Since extensive literature exists for these broad topics, the literature review was organized into the following three subtopics to increase understanding and provide a summary of each topic in a coherent fashion.

- Importance of training and development
- Employee performance
- Relationship between training and employee performance

Presentation of the Literature

**Importance of training and development.** “Training” refers to a systematic approach to learning and development which increases effectiveness while “development” denotes activities which lead to the acquisition of knowledge and skills for purposes of personal growth (Goldstein & Ford, 2002; Aguinis & Kraiger, 2009). Thus from a technical perspective, these two terms have different meanings. Training is used by organizations to increase present effectiveness of
achieving specific organizational goals such as how to operate a piece of machinery or perform a
given process with precision while developmental programs concentrate on the acquisition of
broader skills such as decision making and leadership which prepare individuals to generally
enrich the organization in the future (Fitzgerald, 1992). However, this study uses both terms
interchangeably to refer to any activity with the specific purpose of increasing the capacity of
employees to perform job duties and responsibilities as it is often very difficult to differentiate
whether a specific research study addresses training, development, or both.

Kroll and Moynihan (2015) commented on the paradoxical nature of training by calling
attention to the fact that organizations often plan for training to have sweeping effects even as
they are cynical of its capacity to do so. For example, many scholars have promulgated the idea
that only 10 percent of training actually transfers back to the workplace (Ford, Yelon, &
Billington, 2011; Freifeld, 2012). Although this conception has proven to be a carelessly-
perpetuated and baseless generalization, the particular idea and those like it continue to hold
sway among company executives and human resource professionals even while the companies
they lead invest hundreds of billions annually to train and develop employees (Ford et al., 2011).

Despite the struggle between confidence and doubt in training’s capacity, the generally-
accepted position is that training produces clear and measurable benefits for both individuals and
organizations (Aguinis & Kraiger, 2009). Some authors regard the knowledge acquired through
training as the most important strategic resource a firm possesses (Grant, 1996; Nonaka &
Takeuchi, 1995; Spender, 1996). Training sharpens thinking skills and helps employees avoid
needless errors and costly mistakes. Elnaga and Imran (2013) described the general benefits of
training to include increased job satisfaction and morale, increased motivation, increased
efficiencies in processes, financial gain, increased capacity to adopt new technologies and
methods, increased innovation, and reduced employee turnover. Gesme, Towle, and Wiseman (2015) summarized similar pay-offs for training at medical practices including improved employee retention, increased staff morale, a marked enhancement in staff productivity and confidence, amplified job competency, and increased patient satisfaction. Moreover, training has been characterized as the sole method capable of identifying the needs and shortcomings of an organization’s members and then “building their required competence level so that they may perform well to achieve organizational goals” (Elnaga & Imran, 2013, p. 141). Expressed differently, studies evidence a direct correlation between training and increased individual capacity. Moreover, it is clear that the increase in individual capacity leads to organizational improvement.

Aguinis and Kraiger (2009) identified indirect training benefits such as an enhanced organizational reputation, increased customer satisfaction, and enriched social capital which may serve as antecedents to performance improvements. One example of training with indirect benefits was leadership training. While leadership training does not directly relate to individual or organizational performance, leadership training leads to more effective communication, development of a team culture, and an increased capacity to constructively resolve conflicts (Gesme et al., 2015). Zenger (2012) reported that a group of established leaders in bottom 10 percent for a number of leadership competencies and in the 20th percentile of overall leaders received focused leadership training which transformed this group into the 50th percentile within 18 months. This example demonstrated that even so-called “old dogs” can and do learn “new tricks” when provided with the focused and precise leadership development training. Another real-world illustration of this improvement was observed in a study of Israeli Defense Forces cadets which confirmed a link between transformational leadership training and enhanced
followers’ motivation, morality, and empowerment (Divr, Eden, Avolio, & Shamir, 2002). Given these clear benefits, it was reasonable to conclude that organizations can consider this type of training as a worthwhile and valuable investment.

The positive effects of training have been documented for various types of knowledge. Training effectively led to an increase in declarative knowledge (information about what) for federal government reform initiatives (Kroll & Moynihan, 2015). A larger-scale meta-analysis likewise concluded that training has the largest effects for declarative and procedural knowledge (information about how) with trainees improving slightly more than one standard deviation in these knowledge categories (Taylor, Russ-Eft, & Chan, 2005). Kozlowski et al. (2001) linked training to enhancements in strategic knowledge which informs individuals regarding when to apply a specific knowledge or skill. Finally, Aguinis and Kraiger (2009) revealed that cross-cultural training greatly enhances an expatriate’s success on overseas assignments. Plainly, there are clear benefits of training as a means of knowledge acquisition.

Based on these studies, it is evident that training increases the capacity of the employee or trainee in countless ways from providing job-specific, task-oriented instructions regarding the most efficient way to perform a given task to increasing their ability to generate innovative solutions to everyday problems. Stated simply, an organization’s people are generally viewed to represent more value to an organization than its physical assets and education, training, and development are the most effective method to increase extrinsic value (Stolovitch & Maurice, 1998). Additionally, training has direct and indirect benefits for the organization at large. Training not only impacts the organization’s bottom line, but it also leads to a more positive view of the organization by both employees and customers.
Employee performance. High-performance organizations are loaded with high-performing individuals who have been well-trained, well-developed, and well-rotated throughout the organization. Employee performance is a multi-dimensional concept which Sonnentag, Volmer, and Spychala (2008) reduced to a behavioral component and an outcome component. The behavioral component refers to the actions people take at work while the outcome component refers to the result of an individual’s behavior. The distinction between these two components of job performance is critical to comprehend; although employee actions and the consequences or results of those actions are related, the two components never completely overlap “as the outcome aspect is affected by other determinants than the behavioral aspect” (Sonnentag et al., 2008).

Figure 1. Components of employee performance

Milkovich and Wigdor (1991) supported this assertion by pointing that job performance involves the complicated interplay of job factors related to the job, the employee, and the environment. Despite general recognition that outcomes cannot be completely altered by focusing on the behavioral component of job performance, companies have embraced the importance of increasing performance through training as a method to build individual skills and “demonstrate
to customers a commitment to quality” which can lead to improved organizational performance and profits (Cadman, 2013, p. 37).

Organizations strive for employee performance improvements since the individual results of satisfaction, feelings of self-efficacy, and job mastery are associated with positive organizational effects (Kanfer & Ackerman, 2005). Ziegler, Hagen, and Diehl (2012) have defined job satisfaction as “an overall evaluative judgment regarding one’s job that is caused by affective experiences on the job and (cognitive) beliefs about the job” (p. 2019). According to Heathfield (2015), the top three contributors to employee job satisfaction are job security, opportunities to use skills and abilities, and the organization’s financial stability. While the first and third contributors are outside the scope of this discussion, opportunities to use skills and abilities is intrinsically related to the discussion of both training and performance. Interestingly, Ostroff (1992) demonstrated a stronger correlation between individual job satisfaction and organizational performance than between individual job satisfaction and individual performance. That is to say, while managers may be tempted to question that individual satisfaction leads to increased performance based upon bad experiences with a particular employee, research indicates that a collection of satisfied employees inexorably leads to increased organizational productivity and efficiency.

High performing individuals are the rising tide that lifts the fortunes of any organization. Today’s globally diverse, ever-dynamic corporate environment has created a setting where businesses demand employees with the ability to continuously innovate and adapt to increasingly competitive international markets (Truitt, 2011). For example, Bapna, Langer, Mehra, Gopal, and Gupta (2013) identified the development of human capital as the key strategy required to acquire and sustain competitive advantage for firms in the IT services industry. However, the IT
industry is not alone in its emphasis on seeking out ways to strengthen the organization through a systematic focus on individual performance as a diverse list of companies including Whole Foods Market and Virgin Group practice this same philosophy (Fulmer & Ployhart, 2014). Ensuring personnel possess the skills required to succeed in today’s economy is the primary purpose of a bulk of training and development initiatives. The next subsection reviews the literature regarding how organizations pursue performance improvements through various forms of training and development.

**Relationship between training and employee performance.** The expressed purpose of any training program is to produce graduates and employees who excel on the job and increase the organization’s ability to perform and succeed (Devaraj & Babu, 2004). Training is one of the primary mechanisms organizations utilize to increase productivity, attain or maintain market superiority, and enhance profitability (Arthur, Bennet, Edens, & Bell, 2003; Blundell, Dearden, Meghir, & Sianesi, 1999). The direct connection between training and profitability has led experts to view training as a profit center instead of an expense (Bobinski, 2016). The Cheesecake Factory, for example, invests $2,000 annually per employee on training which has contributed to an incredible sales per square foot, a measure used by restaurants to evaluate how efficiently a restaurant uses its size to generate profit, which is almost double the industry average (Bullen, 2014). Similarly, Ton (2012) highlighted that successful retail chains such as QuikTrip convenience stores, Mercadona and Trader Joe’s supermarkets, and wholesale giant Costco not only invest in employees by offering better training and development opportunities, but these businesses also provide the lowest prices in their industries, deliver solid financial performance, and deliver better customer service than their competition.
The extent to which the new knowledge and skills learned during training are actually applied on the job is called transfer of training or simply training transfer (Aguinis & Kraiger, 2009). Blume, Ford, Baldwin, and Huang (2010) divided transfer into two major dimensions: generalization, the extent to which skills acquired during training are applied to different settings or situations than those trained, and maintenance, the extent that these changes persist over time. While the literature indicates a need for further research to understand the factors influencing training transfer, a meta-analysis conducted by Arthur et al. (2003) concluded that training has an overall positive effect on job performance when compared to no-training or pre-training states. Furthermore, Newbert (2007) empirically confirmed a direct relationship between knowledge acquired through training and development with competitive advantage and performance.

Several studies have positively linked the various types of training referenced in the training and development section to job performance. Campbell, McCloy, Oppler, and Sager suggested that both declarative and procedural knowledge are core performance determinants (as cited in Sonnentag et al., 2008). In other words, performance improves when employees receive training targeted at helping them understand what to do and how to do it. This construct was supported by a study of Australian breast radiologists which found that task experience, a form of declarative knowledge gained through on-the-job training and actual individual task performance, was an appropriate predictor of expertise development (Taba et al., 2016). Additionally, Star (2000) concluded that deep-level procedural knowledge was “structured and stored in memory in way that makes it maximally useful for the performance of tasks” (p. 83).

Another frequently studied aspect of the relationship between training and job performance is the similarities and differences between generic and specific training. Ellis, Bell, Ployhart, Hollenbeck, and Ilgen (2005) noted that both task and generic teamwork skills training
can lead to performance enhancement and team effectiveness. However, in a comprehensive study of the effects of generic and skill-specific training at Indian software giant Infosys, Devaraj and Babu (2004) found a stronger link between skill-specific training and on-the-job performance than existed between generic training and on-the-job performance. This discovery led Infosys to modify their existing training programs in an attempt to exploit and capitalize on this correlation. One way Infosys accomplished this goal was to implement initiatives which focused on skill-specific training such as real-life problem resolution and code samples demonstrating key concepts (Devaraj & Babu, 2004). Similarly, Agarwal, Sambamurthy, and Stair (2000) found that self-efficacy developed learning a specific software package has greater effect on future learning than self-efficacy developed from generalized learning about how to use information technology. Therefore, it can be concluded that while both generic and skill-specific training have the capacity to increase performance, existing research indicates the correlation between training and performance may be stronger for skill-specific training than for generalized training.

Another prominent question among managers and human resource personnel concerns which type or method of training produces the largest performance impact. HR.com (2001) listed a variety of training methods including technology-based learning, simulation, on-the-job training, coaching/mentoring, classroom lectures, group discussions, role playing, management games, outdoor training, films and videos, case studies, and planned reading. In a comparison of face-to-face (FTF) classroom training, electronic learning (e-learning), and mobile learning (m-learning), Paul (2014) found no statistically-relevant difference in learning performance among these three typical instructional modes. A meta-analysis performed by Johnson and Rubin (2011) supported this conclusion, but revealed a general preference for interactive computer-based
training (CBT) over non-interactive CBT or textual CBT. Laiken, Milland, and Wagner (2014) expanded on this theme by suggesting that although virtual learning can be just as or even more effective than FTF training, virtual learning takes much longer to develop than classroom training and therefore requires more initial resource investment. In conclusion, the studies sampled for this study support the general equality of FTF and virtual training methods even while conceding the challenges introduced by virtual training approaches.

Employee training is consistently viewed by business experts as a high-performance human resource practice which can be used as a strategic weapon in the battle for competitive advantage (Blume et al., 2010). Successful managers and leaders recognize the relationship between training and competitive advantage and therefore treat training and development as their modus operandi (Longenecker, 2007). In fact, according to Meister (1998), companies use training investment as evidence of competitive advantage which in turn allows them to recruit and retain top-tier talent.

Stolovitch and Maurice (1998) proposed that targeted training increases the value of an organization’s human capital thereby benefitting both the organization and the individual. Napierala, Selig, and Berge (2005) claimed organizations now recognize the competitive advantage inherent to intellectual capital, which can be defined as employees’ brainpower, know-how, knowledge, and processes, and have consequently developed knowledge networks to enable the sharing of information and data. Organizational performance improves and competitive advantage is gained as organizations increase the intellectual capital of their employees through focused training and development programs. For example, a study of 150 companies listed on the Singapore Exchange using the Pulic Value Added Intellectual Coefficient model revealed a positive correlation between intellectual capital and a company’s
current and future performance especially for knowledge-intensive industry markets (Tan, Plowman, and Hancock, 2007). This study was particularly important because it provides empirical evidence for a claim which was often considered to be merely anecdotal.

Numerous studies provide evidence of the relationship between the presence of training programs and improved organizational performance around the globe and across market sectors. In a study of eight functional areas of a large manufacturing firm including finance, engineering, manufacturing, marketing, information systems, research and development, staff services, and support services, Bartel (1995) concluded training to have a positive and significant effect on job performance and company productivity. In another study of 457 small and medium-sized European businesses, Aragon-Sanchez, Barba-Sanchez, and Sanz-Valle (2003) found that on-the-job training and formal in-house training were positively correlated to most dimensions of effectiveness and profitability. Similarly, Shaheen, Naqvi, and Khan (2013) published that the training of Pakistani school teachers led to significant improvements in individual teacher performance and the general ability of schools to provide better-quality instruction to students. Finally, a study of four pharmaceutical companies in Karachi, Pakistan confirmed a significant positive relationship between employee training and company performance (Hafeez & Akbar, 2015). In summary, current research seems to indicate that the positive relationship between training and performance is not dependent on geographic location or market sector although some market sectors seem to experience more significant effects from training than other sectors.

Extant research indicates that training was particularly critical within so-called Knowledge-Intensive Firms (KIFs) such as financial services, telecommunications, and IT services where the knowledge and skills required for success change rapidly. Unlike capital-intensive firms, KIFs place an emphasis on human and social capital, tacit knowledge, and
know-how (Nurmi, 1998). Given the high emphasis on people and the relatively high turnover rate among knowledge workers, KIFs have de-emphasized traditional training methods such as instructor-led training courses and replaced them with innovative organizational development initiatives such as self-managed off-the-job workshops (Sloman, 2005; Horwitz, Heng, & Quazi, 2003). Irrespective of form, the value placed on attracting, developing, and retaining human capital has led KIFs to invest proportionally more financial resources in training and learning than capital-intensive firms.

Another important factor for KIFs is knowledge obsolescence. For KIFs, the continued training and development of tenured employees is an essential way to prevent the deterioration of their KSAs and to enable them to acquire the skills needed to increase their internal and external employability (Horwitz et al., 2003). Bapna et al. (2013) found that employer-provided training in a large Indian IT company had the most impact for more experienced employees possibly due to the relatively rapid rate at which IT knowledge becomes obsolete. These findings do not imply that training and development of new employees ceases to be essential, but rather highlights a unique facet of training within KIFs.

Training bridges the gap between knowledge and performance by transforming untapped employee potential into increased performance by individual employees and the organization as a whole. Training leads to improved job performance by replacing weak and ineffective work practices with creative, efficient, and effective work practices (Elnaga & Imran, 2013). McDaniel, Schmidt, and Hunter (1988) quoted at least five quantitative studies which have demonstrated the increased mental ability gained through targeted training of new employees to be a consistent predictor of performance in all types of jobs. In other words, college recruits and new employees come to a new organization with a certain level of intellectual capacity and
knowledge, but either do not understand the best method to apply this knowledge in a beneficial and effective way or simply lack the exact skills required by their new organization (Wang, Sun, Li, & Xuejun, 2008). In discussions with numerous Chief Information Officers (CIOs), King (2009) confirmed that even the smartest and most tech-savvy college graduates lack the skills needed from new members of their information technology (IT) staff. Formal new employee orientation training provides a fundamental understanding of the new position and teaches the new employee how their duties and responsibilities impact the organization’s success (Uma, 2007). Without this basic training, employees are forced to waste time and energy attempting to learn organizational processes and market-specific skills independently. However, these same employees are empowered to succeed when their new employer invests in training which explains their new position and the skills they must obtain in order to add value to the organization.

Training has also been proven to physically change trainees’ brain composition in ways which greatly improve performance. For instance, Maguire, Woollett, and Spiers (2006) confirmed that the size of London bus and taxi drivers’ hippocampus, the part of the brain which controls spatial memory, gets larger and increases in capacity and capability as a result of an extensive training program to learn the complex layout of London’s over 25,000 streets, alleys, and corridors. Similarly, the National Research Council (2009) established that the human brain is highly plastic or adaptable and that repeated activities, like troop combat training which was designed to develop very specific behaviors, literally alter cellular brain structure and strengthen connections between particular neurons thereby improving the performance of the trained behavior. Stated another way, training can improve performance by causing chemical and
physiological changes to brain composition which leads to an increased capacity to effectively complete a given task or set of tasks.

The preceding observations do not attempt to insinuate that all training and development activities strengthen job performance and trigger organizational improvement. Potocki and Brocato (1995) have noted that simply reading a lot of books about training and implementing countless improvement initiatives does not affect customer satisfaction or lead to competitive advantage. According to Rossett (1997), numerous courses end with participants expressing satisfaction for the KSAs learned during the course, but unconvinced that the course will result a noticeable change in their workplace. Stolovitch and Maurice (1998) pointed out that the failure of training to produce performance improvements can often be traced back to the fact that more than 80% of performance gaps are unconnected to knowledge and skill deficiencies. Instead, training fails to produce performance improvements due to environmental factors such poor planning, insufficient tools and resources, inadequate budgets, or misguided reasons for holding the training (Berge, 2008). Stolovitch (2007) expanded this list of factors by calling attention to poor trainee selection, unclear expectations for supervisors, little on-the-job support, no post-training monitoring, inadequate resources to implement new skills, lack of incentive to apply new skills, and trainee discomfort with change as additional causes training may fail to produce expected results. However, all of these factors can be overcome by the organization as they are identified and methodically addressed by managers, human resource administrators, instructors, and the trainees themselves.

**Summary of the Literature**

This chapter presented a review of selected books, studies, articles, and websites concerning training, employee performance, and the relationship between these two factors. The
literature supported claims defending the effectiveness of training as means to improve individual KSAs even though doubts remain pertaining to which training methods are most effective. The literature confirmed the importance of high-performing, satisfied individuals to organizational achievement and supported the generally-accepted notion that employee performance can be used as a critical indicator of the success or failure of a given organization. The literature indicated no significant difference in learning performance between face-to-face training and virtual training although the literature indicated a significant increase in the time required to develop effective virtual learning approaches and a learner preference for interaction. Finally, the literature demonstrated broad consensus of the importance of training as a means to increase individual and organizational performance in both U.S. and international organizations. Notably, the literature confirmed that training warrants its predominant position in the hierarchy of organizational priorities due to its unequalled potential to deliver performance improvements and financial results.
Chapter 3: Research Methodology

Research Approach

The following chapter provides a summary of the methodology that was employed to assess the research questions presented in Chapter 1. The objective of this research was to study the effect training has on the job performance and whether the effect or effects are the same for domestic U.S. and international organizations. Accordingly, this research project was designed as a quantitative hypothesis test of the training methods currently in use and what effect these training methods have on job performance across both U.S. domestic and international organizations. The hypothesis testing typology enabled this study to determine if training offered by participants’ employers achieved its desired effect of improving job performance through the administration of an online survey on various Facebook groups. The survey was created using the popular survey service SurveyMonkey. The data collected by this survey collected responses to the research questions while simultaneously providing clues as to how to improve effectiveness of future employee training.

The hypotheses which guided this study were as follows:

Hypothesis #1

H1: Employees perceive training to have positive relationship to job performance.

H0: Employees do not perceive training to have positive relationship to job performance.

The dependent variable for this hypothesis was job performance. The independent variables were the various types of job training including, but not limited to: face-to-face classroom training; computer-based training; coaching and mentoring; self-study materials; on-the-job training; and seminars and workshops.

Hypothesis #2
H1: Employee perceptions or opinions of the relationship between training and job performance are linked to the type of organization (U.S. domestic versus international).

H0: Employee perceptions or opinions of the relationship between training and job performance are not linked to the type of organization (U.S. domestic versus international).

The dependent variable for the second hypothesis was employee perceptions of the relationship between training and job performance. The independent variable was the type of company or organization, whether it be U.S. domestically-focused or internationally-focused.

This chapter was divided into three sections. The first section, “Data Collection Approach and Procedures,” has three objectives: (1) restate the primary research question and associated sub-questions; (2) describe the data required to answer these questions; and (3) describe the procedures employed to collect data. The second section, “Proposed Approach for Data Analysis and Synthesis,” describes the tools and techniques used to analyze and interpret the collected data. The third and final section of this chapter was “Methodological Limitations.” This section identifies all known weaknesses and limitations of this research study. By the end of this chapter, the reader should have a firm understanding of this study’s proposed methodology and how that methodology led to answering the primary research question.

**Data Collection Approach and Procedures**

**Data collected.** The primary research question for this study was: *What effect does training have on job performance and does this relationship differ for international and domestic companies?* Four sub-questions were proposed to address the different dimensions of this question. Employee perceptions regarding training and performance were collected because this information was required to determine how training and performance are related and whether
this relationship varies among domestic and international companies. The following paragraphs methodically discuss the data required to answer each of these sub-questions and how this data led to understanding the effects training has on job performance.

Sub-question #1 – Are employees generally satisfied with the training offered by their current employer and do employee satisfaction levels differ for domestic and international organizations? The purpose of this question was to assess employees’ general satisfaction levels with employer-provided training and whether these satisfaction levels vary for domestic and international organizations. This question sought to gather employee opinions regarding general training, new employee orientation training, organizational training investment, and training variety. This data was essential in order to understand if employees perceive that the training they receive was valuable and if training improvements were necessary. The ordinal data collected for this question provided a snapshot of employees’ satisfaction levels and whether employees believed improvements are warranted. Following data compilation, the researcher was armed with the data required to advise management of current satisfaction levels.

Sub-question #2 – Does the relationship between training and job performance differ for the various types of training and does this relationship differ for domestic and international organizations? This question was designed to collect employees’ opinions of which training types were perceived to be the most beneficial in improving job performance and whether these perceptions change for employees of domestically-focused or international organizations. Organizations typically offer a variety of training types including: face-to-face classroom training courses, computer-based training, coaching and mentoring, self-study training materials, on-the-job training, training seminars/workshops, and other training methods. Collecting this type of ordinal data facilitated the recognition of which types of training were
perceived to be most effective and should therefore be offered more often and which types of training were perceived to be less effective and should be offered more judiciously.

**Sub-question #3 – Are employees satisfied with the quality of training offered by their employer and do employee satisfaction levels differ for domestic and international organizations?** This question’s objective was to determine if employees are satisfied with the quality of the training provided by employer and whether satisfaction levels vary across organization type. This question added to the information gathered for sub-question #2 and informed the researcher of both general training quality issues as well as quality issues inherent to each particular type of training. This data was essential in order to understand if training improvements were necessary and what type of improvements can have the greatest impact. The ordinal data collected for this question provided a snapshot of employees’ opinions of training quality and aided the development of recommendations for whether improvements were needed.

**Sub-question #4 – To what degree do employees attribute their level of performance in their current position to the training they have received and do attribution levels differ for domestic and international organizations?** This question’s purpose was to allow employees to quantify the performance improvement they believed was a result of the employer-provided training they have received up to the point the survey was completed. This quantitative data was used to determine the aggregate effect the various forms of training have on the employee performance. Furthermore, the data provided insight into the current effectiveness and overall health of training systems as well as an indication of whether current training required modification in order to produce desired performance improvements.
Data collection procedures. The following paragraphs discuss how the data for this survey was collected by examining the target population, the characteristics of the sample, instrumentation, validity and reliability, and procedures and timing.

Target Population. The target population for this research study was Facebook users who are members of various groups. The Facebook groups on which the researcher posted the survey request are: The Human Resources Group (13,370 members), Business Mastermind Group International (4,062 members), Job and Training News (9,226 members), and the researcher’s personal Facebook network (497 members). The membership in these groups fluctuates daily, but provided the researcher with access to over 27,000 unique potential respondents. These groups were selected not only out of convenience of access through Facebook, but also because the collective membership of these four groups represented a wide variety of backgrounds, vocations, and opinions which permitted the researcher to collect data from a very diverse and representative sample. The Human Resources Group was selected for the diversity of its members as well as their professed interest in training and employee productivity. Business Mastermind Group International was selected because it provides access to another diverse group of individuals who are interested in international business. Job and Training News was selected simply because each member has an expressed interest in job training. Finally, the researcher’s personal network was selected because it provided access to professional colleagues and personal contacts not otherwise represented in the other groups.

The researcher openly acknowledges that given the nature of social media and the ease of sharing posts on Facebook the sample could have included respondents which are not members of the groups listed above. However, since the stated purpose of the study was to better understand the general public’s views of training and job performance, the researcher did not
regard this possibility as problematic. In fact, this aspect of social media potentially strengthened the representativeness of the data as the survey was shared with potential respondents who were otherwise inaccessible to the researcher.

**Sample Details.** The sample for this research study included members of the Facebook groups discussed above. The data for this research study was collected by anonymous online survey distributed through daily Facebook posts soliciting voluntary participation and therefore the entire population had equal opportunity to respond to the survey. This sampling methodology ensured that the statistical conclusions resulting from this research study are valid in terms of sample representativeness. Given a population size of 27,000, a confidence level of 95%, and a confidence interval or margin of error of 5%, the researcher desired the return of 379 surveys for a return rate of 1.4%. In reality, a total of 226 surveys were returned resulting in an actual margin of error of 6.49%. The methods used to achieve this return rate are detailed below in the “Procedures and Timing” subsection.

There was a chance that members in the sample belonged to the vulnerable populations of pregnant women or disabled persons. The researcher has no way of knowing which of the sample members belonged to these vulnerable groups. Furthermore, since all responses are anonymous and no identifying data was collected, the researcher remained ignorant of which participating respondents belong to these vulnerable populations.

**Instrumentation.** The survey itself was created using SurveyMonkey.com for a variety of reasons. First, SurveyMonkey provided a professional interface and a user-friendly survey experience that survey respondents expect. Second, the time and effort required to respond to an online survey was markedly less than the time and effort required for phone or paper surveys. Third, the site provided built-in software which automatically tabulated the data thereby
eliminating the human error that would be introduced by manually tabulating data collected from paper surveys. One of the only known drawbacks of using SurveyMonkey was that the free plan was limited to 100 responses per survey without upgrading to a paid plan. However, the researcher negated this limitation by registering for a monthly SELECT plan for the duration of the research project. This step allowed the researcher to obtain a relatively high return rate at minimal expense.

**Validity and Reliability.** A select few of the survey questions were derived from the SurveyMonkey question bank and are certified valid and reliable by the Society of Human Resources Management (SHRM) Foundation, however most of the individual questions have not been independently tested for reliability and validity. Reliability refers to the extent to which a given research instrument obtains the same answers when used more than one time (Dudovskiy, 2016). Babbie (2010) identified reliability as a major concern when collecting data from an individual because no conclusive methods exist to guard against or prevent individual subjectivity. Lueng (2015) described validity as the appropriateness of the tools and processes used to collect data. Research validity has many forms, but ensuring validity involves selecting the appropriate time scale and methodology, choosing a representative sample, and refraining from pressuring respondents to make specific choices (Dudovskiy, 2016).

In order to compensate for the lack of formal independent reliability and validity testing, the researcher performed a limited pilot test of the survey. The researcher distributed the survey to four coworkers who are not members of the target population. Provided feedback indicated no technical issues with regards to accessing the survey and provided suggestions and recommendations for clarifying the meaning and purpose of specific questions. The researcher considered each recommendation and modified the survey to address these concerns.
Procedures and Timing. The data for this study was collected using an anonymous online survey posted on various Facebook groups. Following receipt of approval from Central Michigan University contained in Appendix D, the researcher posted a link to the SurveyMonkey survey to the groups discussed in the “Target Population” and “Sample Details” sections. The researcher posted the original post to each Facebook group on Monday, June 20, 2016 and reposted twice a day until the survey was closed at midnight on Monday, Jun 27, 2016.

As previously stated, given a sample size of 27,000, the researcher desired survey responses from 379 unique persons for a response rate of 1.4%. Studies indicated significant variance in return rates for online and email surveys ranging anywhere from 20%-58% (Nulty, 2008; Fryrear, 2015; Schaefer & Dillman, 1998). However, studies performed by KISSMetrics indicated that greater than 60% of Facebook survey requests produce no response and that the majority of responses were received within 2 hours of the survey request post (Nierhoff, 2014). Thus, the desired rate of return appeared to be feasible, but was certainly not guaranteed and in fact only 226 unique responses were received. However, in an effort to maximize response rates, the researcher implemented a few of the most prevalent methods for boosting online survey response rates including sending out repeat reminders (reposts), designing the survey to take ten minutes or less, extending the duration of the survey’s availability, attempting to persuade potential respondents that their responses are valuable and will be used for the betterment of the organization, and offering incentives to respondents in the form of prizes for respondents awarded through a lottery (Nulty, 2008). The researcher distributed five $5 digital Amazon gift cards which were delivered to the winners email addresses through Amazon.com. Email addresses were collected on SurveyMonkey as a response to the final survey question and were not connected to individual survey responses in any way.
Data Analysis and Synthesis

The 226 completed surveys were analyzed using a variety of descriptive statistical methods such as rank, median, mean, and frequency and cross tabulation tables. The method employed to analyze the data was dependent upon the type of question as the survey contains both interval and ordinal measurement scales. After the survey was closed on SurveyMonkey and all responses were received, the researcher transferred the data into Microsoft Excel for further analysis. The researcher then utilized the statistical functions provided by Microsoft Excel to analyze data trends and patterns. Microsoft Excel was used to create the tables, charts, and other visual aids displayed in chapter 4 of this report.

Methodological Limitations

This study has at least two known limitations. The following paragraphs provide a discussion of these limitations and the potential effects these restrictions could have on the results of this study.

The first limitation was that data collected by survey of human subjects was inherently subjective as it was based upon the judgments of individual employees at a single moment in time. A more objective research methodology would have involved benchmarking knowledge prior to training and then comparing the pre-training benchmarks to post-training knowledge or skills tests. Moreover, self-reported survey data can contain several sources of bias such as selective memory, telescoping, attribution, and exaggeration (University of Southern California Libraries, 2016). However, the subjectivity of the data collected by this study did not diminish its usefulness as a means to better understand the relationship between training and performance. The collection of this data was important as a method for the training community to better understand employee perceptions and general attitudes toward training.
The second limitation of this study was that most of the survey questions have not been independently tested for reliability and validity. As mentioned in the Data Collected Procedures section, a few of the questions were tested for reliability and validity by the SHRM Foundation, but a large majority of the questions were not independently tested for these factors. The researcher conducted a limited pilot test of the survey and incorporated the feedback received from the pilot participants, but readily acknowledges the limitations inherent to the survey’s lack of independent reliability and validity testing. The researcher constructed the survey with these factors and limitations in mind, but was constrained from performing independent reliability and validity testing due to time and resource constraints.
Chapter 4: Data Analysis

Introduction

The purpose of this research project was to collect and analyze the attitudes and opinions of the general population towards employer-provided training and its effect on job performance. Additionally, this research project was designed to determine whether these opinions vary for U.S. and international organizations. A sample of opinions were collected by online, anonymous social media survey using SurveyMonkey and Facebook and the resulting data was analyzed for patterns using both descriptive and cross tabulation analyses. The sample was divided into two categories, U.S. domestic employees and international employees, using the first question to filter and group the remaining responses of each participant depending on their self-identification to one of these mutually exclusive groups. The remainder of this chapter compares and analyzes the data collected for each group in order to answer the primary and secondary research questions and either support or refute the two hypotheses stated in Chapter 3.

Data Presentation and Analysis

This study encompassed a sample of 226 adults who are members of one or more of the following Facebook groups: The Human Resources Group (13,370 members), Business Mastermind Group International (4,062 members), Job and Training News (9,226 members), and the researcher’s personal Facebook network (497 members). 179 or 79.6% of respondents self-identified as members of a U.S. domestic company and the remaining 46 or 20.4% of respondents self-identified as members of an international company. While the vast majority of potential participants were selected had previously expressed some level of interest in training or human resource topics, it was assumed that the sample included individuals from a variety of educational levels, genders, and occupation. However, the researcher did not collect this type of
demographic data since the purpose of the study was to make comparisons based upon whether the respondents’ employer was located only in the United States or internationally.

![Participant categorization](image)

*Figure 2. Participant categorization*

**Sub-question #1 – Are employees generally satisfied with the training offered by their current employer and do employee satisfaction levels differ for domestic and international organizations?** Opinions regarding general satisfaction were collected using questions two through six of the online survey. The following tables depict the data collected for each of these survey questions. For convenience, the text for each question has been included in the first row of each table.

Table 1

*Satisfaction with Amount of Training Received*

<table>
<thead>
<tr>
<th>Q2: How much training have you received for your job?</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>A great deal of training</td>
<td>49 (29.34%)</td>
<td>17 (37.78%)</td>
</tr>
<tr>
<td>A lot of training</td>
<td>27 (16.17%)</td>
<td>5 (11.11%)</td>
</tr>
<tr>
<td>A moderate amount of training</td>
<td>43 (25.75%)</td>
<td>12 (26.67%)</td>
</tr>
<tr>
<td>A little training</td>
<td>40 (23.95%)</td>
<td>9 (20.00%)</td>
</tr>
<tr>
<td>Not any training at all</td>
<td>8 (4.79%)</td>
<td>2 (4.44%)</td>
</tr>
</tbody>
</table>

Table 2

*Satisfaction with Training Helpfulness*
### Q3: How helpful was the training you received when you started your job?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely helpful</td>
<td>35</td>
<td>5</td>
</tr>
<tr>
<td>Very helpful</td>
<td>52</td>
<td>16</td>
</tr>
<tr>
<td>Moderately helpful</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td>Slightly helpful</td>
<td>26</td>
<td>8</td>
</tr>
<tr>
<td>Not at all helpful</td>
<td>12</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3

**Satisfaction with Training Investment**

<table>
<thead>
<tr>
<th>Q4: I am satisfied with the investment my organization makes in training and education.</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>35</td>
<td>9</td>
</tr>
<tr>
<td>Neutral/Neither agree nor disagree</td>
<td>41</td>
<td>10</td>
</tr>
<tr>
<td>Agree</td>
<td>59</td>
<td>14</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>24</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 4

**Satisfaction with Training Offered**

<table>
<thead>
<tr>
<th>Q5: I am satisfied with the job-related training my organization offers.</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Disagree</td>
<td>39</td>
<td>7</td>
</tr>
<tr>
<td>Neutral/Neither agree nor disagree</td>
<td>45</td>
<td>14</td>
</tr>
<tr>
<td>Agree</td>
<td>59</td>
<td>14</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>14</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 5

**Satisfaction with Training Variety**

<table>
<thead>
<tr>
<th>Q6: I am satisfied with the variety or selection of training available for my job.</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
</table>
Overall, the data collected by these survey questions supported the belief that the majority of U.S. and international employees are satisfied with the job-related training provided by their employers. Data analysis indicated that all respondents have a generally positive perception of each aspect of training. With respect to training received, 71.26% of U.S. employees and 75.56% of international employees reported receiving at least a moderate amount of training. For training helpfulness, 77.25% of U.S. employees and 72.73% of international employees reported that training was at least moderately helpful. With regard to training investment, approximately half of respondents in both categories, 49.7% and 50% respectively, expressed satisfaction with the training investment made by their employer with another 24.55% of U.S. employees and 22.72% of international employees remaining neutral. With reference to training offered, 43.71% of U.S. employees and 44.44% of international were satisfied with the training offered by their employer while only 29.34% and 24.44% respectively expressed dissatisfaction. Finally for training variety, this pattern continued with 40.36% of U.S. employees and 53.33% of international employees in strong agreement or agreement with the statement “I am satisfied with the variety or selection of training available for my job.”, while only 34.9% and 22.22% of each group strongly disagreed or disagreed with this statement. In summary, the data demonstrated that the vast majority of all employees are satisfied with job training and provides strong support of the alternative hypothesis for hypothesis #1 and the null hypothesis for hypothesis #2.
Sub-question #2 – Does the relationship between training and job performance differ for the various types of training and does this relationship differ for domestic and international organizations? Opinions regarding the relationship between job performance and various types of training were collected using questions seven through nine of the online survey. The following tables illustrate the data collected for each of these survey questions. For convenience, the text for each question has been included in the first row of each table.

Table 6

**Most Beneficial Training Type**

<table>
<thead>
<tr>
<th>Q7: In general, what type of job training do you consider the most beneficial?</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face classroom training</td>
<td>30</td>
<td>19.35% (3)</td>
</tr>
<tr>
<td>Computer-based training</td>
<td>5</td>
<td>3.23% (6)</td>
</tr>
<tr>
<td>Coaching &amp; mentoring</td>
<td>46</td>
<td>29.68% (2)</td>
</tr>
<tr>
<td>Self-study training materials</td>
<td>6</td>
<td>3.87% (5)</td>
</tr>
<tr>
<td>On-the-job training</td>
<td>54</td>
<td>34.84% (1)</td>
</tr>
<tr>
<td>Training seminars/workshops</td>
<td>11</td>
<td>7.10% (4)</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>3</td>
<td>1.94% (7)</td>
</tr>
</tbody>
</table>

NOTE: The three “other” responses to this question were: (1) “All of the above,” (2) “All of the above,” and (3) “A combination of multiple methods.”

Table 7

**Least Beneficial Training Type**

<table>
<thead>
<tr>
<th>Q8: In general, which type of job training do you consider least beneficial?</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face classroom training courses</td>
<td>6</td>
<td>3.87% (4)</td>
</tr>
<tr>
<td>Computer-based training courses</td>
<td>55</td>
<td>35.48% (2)</td>
</tr>
<tr>
<td>Coaching &amp; mentoring</td>
<td>4</td>
<td>2.58% (5)</td>
</tr>
<tr>
<td>Self-study training materials</td>
<td>66</td>
<td>42.58% (1)</td>
</tr>
<tr>
<td>On-the-job training</td>
<td>2</td>
<td>1.29% (6)</td>
</tr>
<tr>
<td>Training seminars/workshops</td>
<td>21</td>
<td>13.55% (3)</td>
</tr>
</tbody>
</table>
NOTE: The one “other” response to this question was “repetitive refresher training – generally online.”

Table 8

Training Type Ranked by Contribution to Performance

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
<th>Rating Average</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face-to-face classroom training</td>
<td>2.77</td>
<td>2.95</td>
<td>2.80</td>
<td>3rd</td>
</tr>
<tr>
<td>Computer-based training</td>
<td>4.65</td>
<td>4.16</td>
<td>4.55</td>
<td>5th</td>
</tr>
<tr>
<td>Coaching &amp; mentoring</td>
<td>2.51</td>
<td>2.66</td>
<td>2.54</td>
<td>2nd</td>
</tr>
<tr>
<td>Self-study training materials</td>
<td>4.83</td>
<td>4.37</td>
<td>4.73</td>
<td>6th</td>
</tr>
<tr>
<td>On-the-job training</td>
<td>2.13</td>
<td>2.51</td>
<td>2.20</td>
<td>1st</td>
</tr>
<tr>
<td>Training seminars/workshops</td>
<td>4.03</td>
<td>4.23</td>
<td>4.07</td>
<td>4th</td>
</tr>
</tbody>
</table>

The data collected by these questions established a nearly-uniform ranking of training types in terms of perceived benefit or contribution to job performance and provides strong support of the alternative hypothesis for hypothesis #1 and the null hypothesis for hypothesis #2. With the exception of the switch in rank order for face-to-face classroom training and coaching and mentoring in response to question seven’s request for the most beneficial training type, the rank order for both U.S. and international employees was the same for every question in this section. Most importantly, the data gathered from question 9, “What types of training and development do you believe contribute most to job performance?,” resulted in the following rank order for both US and international participants: (1) on-the-job training; (2) coaching and mentoring; (3) face-to-face classroom training; (4) training seminars/workshops; (5) computer-based training; and (6) self-study training materials. Consequently, these conclusive results indicate that: (a) on-the-job training, coaching and mentoring, and face-to-face classroom training were viewed by employees to have a far greater contribution to job performance than the
other three types of training; and (b) there was no difference in this relationship for U.S. or international employees. In other words, training type is a critical factor in whether training delivers increased performance results for all types of employees irrespective of where the company or organization operates.

Sub-question #3 – Are employees satisfied with the quality of training offered by their employer and do employee satisfaction levels differ for domestic and international organizations? Quality satisfaction levels were collected using questions ten through sixteen of the online survey. The following tables illustrate the data collected for each of these survey questions. For convenience, the text for each question has been included in the first row of each table.

Table 9

**General Quality of Training**

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high quality</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>High quality</td>
<td>62</td>
<td>17</td>
</tr>
<tr>
<td>Neither high nor low quality</td>
<td>53</td>
<td>11</td>
</tr>
<tr>
<td>Low quality</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>Very low quality</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>N/A - My employer does not provide training.</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 10

**Quality of Face-to-face Classroom Training**

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high quality</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>High quality</td>
<td>57</td>
<td>18</td>
</tr>
<tr>
<td>Neither high nor low quality</td>
<td>33</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 11

Quality of Computer-based Training

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high quality</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>High quality</td>
<td>34</td>
<td>7</td>
</tr>
<tr>
<td>Neither high nor low quality</td>
<td>48</td>
<td>20</td>
</tr>
<tr>
<td>Low quality</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>Very low quality</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>N/A - My employer does not offer computer-based training.</td>
<td>26</td>
<td>3</td>
</tr>
<tr>
<td>N/A - I have not enrolled in a computer-based training course offered by my employer.</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 12

Quality of Coaching and Mentoring

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high quality</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>High quality</td>
<td>51</td>
<td>7</td>
</tr>
<tr>
<td>Neither high nor low quality</td>
<td>37</td>
<td>14</td>
</tr>
<tr>
<td>Low quality</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>Very low quality</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>N/A - My employer does not offer coaching or mentoring.</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>N/A - I have yet to utilize the coaching or mentoring opportunities offered by my employer.</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 13

Quality of Self-study Training Materials
Q14: How would you rate the quality of self-study training materials provided by your employer?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high quality</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>High quality</td>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>Neither high nor low quality</td>
<td>62</td>
<td>14</td>
</tr>
<tr>
<td>Low quality</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td>Very low quality</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>N/A - My employer does not provide self-study training</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>materials.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A - I have not used the self-study training materials</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 14

Quality of On-the-job Training

Q15: How would you rate the quality of on-the-job training provided by your employer?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high quality</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>High quality</td>
<td>63</td>
<td>16</td>
</tr>
<tr>
<td>Neither high nor low quality</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>Low quality</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>Very low quality</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>N/A - My employer does not provide on-the-job training</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>materials.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A - I have not used the on-the-job training offered</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>by my employer.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 15

Quality of Training Seminars/Workshops

Q16: How would you rate the quality of the training seminars/workshops provided by your employer?

<table>
<thead>
<tr>
<th>Answer Options</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high quality</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>High quality</td>
<td>44</td>
<td>15</td>
</tr>
<tr>
<td>Neither high nor low quality</td>
<td>36</td>
<td>14</td>
</tr>
<tr>
<td>Low quality</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Very low quality</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
The data collected by these questions about training quality suggests that both U.S. and international employees are generally satisfied with the quality of training provided by their employers. This conclusion was evidenced by the fact that 43.79% and 55% of U.S. and international employees rated their employer-provided training as very high or high quality while only 19.61% and 12.5% respectively rated training as low or very low quality. However, the data also indicates that employees’ perception of training quality was highly dependent upon the type of training. Employees held very favorable views of the quality of on-the-job training, face-to-face classroom, coaching and mentoring, and training seminars and workshops, but held mixed to unfavorable views of the quality of computer-based training and self-study materials.

It should be noted that the employees’ perceptions of quality training generally agreed with their perceptions of which types of training contributed the most to increased performance. This agreement adumbrates a relationship between the degree to which training increases performance and the quality of the training itself. In other words, training perceived to be of high quality was linked to training which increases performance. However, the question of causation or whether or not quality training actually produces performance increases requires further study in order to produce a definitive conclusion.

**Sub-question #4 – To what degree do employees attribute their level of performance in their current position to the training they have received and do attribution levels differ for domestic and international organizations?** Quality satisfaction levels were collected using questions seventeen through nineteen of the online survey. The following figures and tables illustrate the data collected for each of these survey questions.
Effect of Job Training on Performance

**Table 16**

**Effect of Job Training on Performance**

<table>
<thead>
<tr>
<th>Q17: Job training has increased my level of performance.</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Agree</td>
<td>80</td>
<td>24</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>24</td>
<td>6</td>
</tr>
</tbody>
</table>

**Figure 3.** Proportion of performance attributable to job training

Effect of Future Training on Performance

**Table 17**

**Effect of Future Training on Performance**

<table>
<thead>
<tr>
<th>Q19: Future job training would further increase my level of performance.</th>
<th>US domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>24</td>
<td>4</td>
</tr>
</tbody>
</table>
The data collected by this subsection of the survey indicates that the majority of all employees consider that past and future training either has increased or will increase job performance. These findings afford strong support of the alternative hypothesis for hypothesis #1 and the null hypothesis for hypothesis #2. For example, 69.8% of U.S. employees and 73.17% of international employees reported that the training they have received has increased job performance and 76.51% of U.S. employees and 70.73% of international employees reported a belief that future job training would further increase job performance. Additionally, almost every respondent indicated that the job training they have received has contributed to increased job performance with only three total participants, which equates to only 1.6% of the responses to this question, replying that job training has had no effect on their job performance.

**Hypothesis Testing and Data Analysis Summary**

The responses to this survey support the alternative hypothesis (H1) for hypothesis #1 that employees perceive job training to be positively related to job performance. Question 3 demonstrated that over half of all employees believe the training they received when they started their current job was either extremely helpful or very helpful with the proportion rising to over three quarters when the moderately helpful responses are included. Question 10 showed that 46.1% of employees view employer-provided training to be very high quality or high quality compared to only 18.2% who view training quality to be low or very low. Question 17 gauged whether employees believed past training had increased their job performance and the responses were overwhelmingly positive with a median and mode of 4, a percent agree (the combination of strongly agree and agree) of 70.53%, and a net top box score (the difference between the proportion of respondents who selected strongly agree and strongly disagree) of 11.58%.
Similarly, the results of question 19, which assessed future expectations of training’s capacity to further increase job performance, revealed comparable optimism with a median and mode score of 4, a percent agree of 75.26%, and a net top box of 21.05%.

The raw responses for questions 17 and 19 were also scored one through five with a one indicating strong disagreement and a five indicating strong agreement. Using these coded scores, a mean and standard deviation were computed allowing for the creation of probability distribution curves as displayed in Figures 3 and 4. The computation of mean and standard deviation also allowed for the calculation of a z-score and a percentile rank using the benchmark of 4 since 80% of the number of a points in a scale was established as a reasonable benchmark by Nielsen and Levy (1994). The percentile ranks of 74.47% and 88.92% respectively were calculated by (1) subtracting the benchmark from the mean, (2) dividing the difference by the standard deviation, and (3) converting the z-score to a percentile rank using an online calculator found at http://www.measuringu.com/pcalcz.php. These percentile ranks indicate what percent of the area fall below the calculated z-scores below each mean. Based on the analysis of this data, the null hypothesis (H0) for hypothesis #1 is rejected.

Table 18

*Training and Job Performance Statistics for Overall Population*

<table>
<thead>
<tr>
<th>STATISTIC</th>
<th>Question 17</th>
<th>Question 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM</td>
<td>698</td>
<td>734</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>3.673684211</td>
<td>3.863157895</td>
</tr>
<tr>
<td>STANDARD DEVIATION</td>
<td>1.002030798</td>
<td>0.982497911</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MODE</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>PERCENT AGREE</td>
<td>0.705263158</td>
<td>0.752631579</td>
</tr>
<tr>
<td>TOP BOX</td>
<td>0.157894737</td>
<td>0.247368421</td>
</tr>
<tr>
<td>NET TOP BOX</td>
<td>0.115789474</td>
<td>0.210526316</td>
</tr>
<tr>
<td>Z-SCORE</td>
<td>-0.325654451</td>
<td>-0.139279793</td>
</tr>
<tr>
<td>Z-SCORE TO PERCENTILE RANK</td>
<td>0.744686</td>
<td>0.889229</td>
</tr>
<tr>
<td>COEFFICIENT OF VARIATION</td>
<td>0.2727591</td>
<td>0.254325072</td>
</tr>
</tbody>
</table>
**Figure 4.** Probability distribution of employee responses regarding relationship of past training and job performance

**Figure 5.** Probability distribution of employee responses regarding relationship of future training and job performance
The data also indicated that this relationship is consistent for both U.S. and international employees. Responses from both employee categories indicated that employees are satisfied with many different aspects of training including amount of training received, helpfulness, investment, and variety. Furthermore, after analyzing the responses about past and future effects of training on job performance, it was clear that the positive relationship which existed for the overall population remained consistent across both US and international employees. For example, with regards to questions 17 and 19, the data indicates a median and mode score of 4 for all groups, a percent agree which differed only 3.38% for question 17 and 5.58% for question 19, and a net top box score which differed only 3.89% in favor of internationals for past training and 1.96% in favor of US employees for future training. Consequently, the null hypothesis (H0) for hypothesis #2 fails to be rejected.

Table 19

Training and Job Performance Statistics for US and International Groups

<table>
<thead>
<tr>
<th>STATISTIC</th>
<th>Question 17 - US</th>
<th>Question 17 - International</th>
<th>Question 19 - US</th>
<th>Question 19 - International</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM</td>
<td>544</td>
<td>154</td>
<td>582</td>
<td>152</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>3.61589404</td>
<td>3.720930233</td>
<td>3.906040268</td>
<td>3.707317073</td>
</tr>
<tr>
<td>STANDARD DEVIATION</td>
<td>1.076171778</td>
<td>0.854277233</td>
<td>0.953955364</td>
<td>1.07805154</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MODE</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>PERCENT AGREE</td>
<td>0.697986577</td>
<td>0.731707317</td>
<td>0.765100671</td>
<td>0.707317073</td>
</tr>
<tr>
<td>TOP BOX</td>
<td>0.161073826</td>
<td>0.146341463</td>
<td>0.255033557</td>
<td>0.219512195</td>
</tr>
<tr>
<td>NET TOP BOX</td>
<td>0.10738255</td>
<td>0.146341463</td>
<td>0.214765101</td>
<td>0.195121951</td>
</tr>
<tr>
<td>Z-SCORE</td>
<td>-0.356918819</td>
<td>-0.32667354</td>
<td>-0.098494893</td>
<td>-0.271492518</td>
</tr>
<tr>
<td>Z-SCORE TO PERCENTILE RANK</td>
<td>0.721152</td>
<td>0.743915</td>
<td>0.92154</td>
<td>0.786012</td>
</tr>
<tr>
<td>COEFFICIENT OF VARIATION</td>
<td>0.297622598</td>
<td>0.229587006</td>
<td>0.244225686</td>
<td>0.290790218</td>
</tr>
</tbody>
</table>

The data also suggested that on-the-job training, coaching and mentoring, and face-to-face classroom training are held to be much more effective at increasing job performance than training seminars/workshops, self-study training materials, and computer-based training. The
data further demonstrated that employees found on-the-job training, coaching and mentoring, face-to-face classroom training, and training seminars/workshops to be high-quality training methods while computer-based training and self-study training materials were viewed as relatively low quality. Finally, responses suggested that employees have confidence that training has and will continue to improve job performance.
Chapter 5: Summary, Conclusions, and Recommendations

Overview

This research project was initiated to answer the primary research question: *What effect does training have on job performance and does this relationship differ for international and domestic companies?* This question was subdivided into four secondary questions as indicated throughout this report which focused the literature review and influenced the data collected by the survey. These sub-questions were:

1. Are employees generally satisfied with the training offered by their current employer and do employee satisfaction levels differ for domestic and international organizations?
2. Does the relationship between training and job performance differ for the various types of training and does this relationship differ for domestic and international organizations?
3. Are employees satisfied with the quality of training offered by their employer and do employee satisfaction levels differ for domestic and international organizations?
4. To what degree do employees attribute their level of performance in their current position to the training they have received and do attribution levels differ for domestic and international organizations?

The research questions governed the development of two hypotheses which were:

**Hypothesis #1**

H1: Employees perceive training to have positive relationship to job performance.
H0: Employees do not perceive training to have positive relationship to job performance.

**Hypothesis #2**
H1: Employee perceptions or opinions of the relationship between training and job performance are linked to the type of organization (U.S. domestic versus international).

H0: Employee perceptions or opinions of the relationship between training and job performance are not linked to the type of organization (U.S. domestic versus international).

This chapter summarizes the key findings of the literature review and data collected as they relate to the research questions and hypotheses followed by a discussion of conclusions and recommendations. The final section of this chapter includes suggestions for future research topics.

Summary

The literature and the survey data present a harmonious representation of training’s relationship with job performance and whether this relationship is uniform across United States-based and international organizations. Both the literature and the survey data clearly demonstrate a positive relationship between job training and the performance of individual employees.

Similar to the studies performed by Blundell et al., Arthur et al. (2003), Newbert (2007), Aguinis and Kraiger (2009), Elnaga and Imran (2013), and Gesme et al. (2015), the survey data collected for this study confirmed that employees believe training provides the skills necessary to improve work performance and that the majority of employees are confident that their current employers are providing adequate training. Furthermore, this study affirmed the findings of Bartel (1995), Aragon-Sanchez et al. (2003), Shaheen et al. (2013), and Hafeez and Akbar (2015) which demonstrate no difference in the relationship between training and job performance for U.S. and international companies.
The one disparity between the literature and this study involved the first part of sub-question #2 regarding whether the type of training influences the nature of the relationship between training and job performance. Johnson and Rubin (2011), Laiken et al. (2014), and Paul (2014) each concluded that method of training produces no statistical difference in learning performance although Johnson and Rubin (2011) professed a general preference for interactive learning in computer-based training courses. Conversely, the responses to this study demonstrated a strong preference for training methods such as on-the-job training, coaching and mentoring, and face-to-face classroom training which feature direct interaction between the instructor and students and a strong displeasure with courses such as computer-based training and self-study training materials which contain considerably less or are totally bereft of interactive, collaborative learning.

Admittedly, a portion of this difference could be attributed to the method of data gathering since the Paul (2014) study measured learning effectiveness by the change in pre- and post-assessment scores while this study was solely based upon employee opinion and satisfaction levels when the survey was completed. However, the data gathering method cannot entirely explain this difference since the survey directly measured respondents’ satisfaction level which Ostroff (1992) and Kanfer and Ackerman (2005) linked to performance. Another explanation for this difference could be that the survey respondents belong to supposed majority of organizations which have failed to devote the time required to make virtual learning as successful as face-to-face training and development while the participants in Paul’s study belonged to a single organization which did not suffer from this failure.

Conclusions
In conclusion, it is clear that training and job performance are positively correlated across geographic, market sector, and functional dimensions. U.S. and international companies which invest in training can and should expect individual improvements like skill development and increased effectiveness coupled with benefits to the firm such as increased customer satisfaction and overall profitability. Employees expressed high satisfaction levels regarding employer training investment, training usefulness, training variety, and training quality. Additionally, empirical data from the reviewed studies and the results from this study support the claim that companies generally offer the training employees are satisfied with and need to be successful. Disagreement remains between the literature and this study concerning the degree to which training method matters, but respondents to this study supposed training with an interactive component delivers superior performance improvement than training with limited or no chance for interaction or collaboration.

**Recommendations**

This study was conducted to provide senior executives and management with insight required to improve the training and development offered by their respective organizations. In accordance with this purpose, the researcher offers the following three recommendations for improving training’s capacity to increase individual and firm performance.

The first recommendation is for senior management to guarantee organizations to prioritize training by ensuring that training is viewed as a profit center and not an expense. Given the broad consensus regarding training’s positive relationship to job performance, there is no reason why employee training should fail to be a top priority of company executives. One specific way to implement this priority is to align organizational training expenditures with industry averages. According to the Association for Talent Development’s 2014 *State of the
Industry report, direct learning expenditures range from $1,888 per employee in companies with less than 500 employees to $838 per employee for midsize organizations with 500 to 9,999 employees (Miller, 2014). Senior leaders should track these industry averages and implement strategies to ensure their respective company’s training expenditures are in line with observed norms. Obviously, spending alone will not guarantee effective, performance-enhancing training, but the evidence is clear that companies which neglect to allocate sufficient financial resources to training and development either suffer from missed opportunities to grow or become insolvent and go out of business.

A second way management can ensure training is treated as a profit center and not an expense is to make the training completion of all direct reports a key performance evaluation criteria for all supervisors and managers. This practice may include establishing thresholds which are tied to annual performance bonuses, but this condition is not necessary for success. At the very least, the creation of a training and development centered performance criteria creates an environment where training is a constant topic of conversation in performance reviews. By making supervisors and managers accountable for the training completion of their direct reports, supervisors are incentivized to become more involved in the individual development of each and every employee they supervise. This practice may also have auxiliary benefits to employee morale, the quality of manager/employee relationships, and employee turnover as employee realize that management is genuinely interested in their individual development.

The second recommendation is for senior management to reevaluate the use of computer-based training and self-study training materials to prevent overuse for the sake of simplicity or saving money. Even if these forms of training can be just as effective as person-to-person, interactive training, the responses to this study demonstrated very low satisfaction levels with
these types of training relative to on-the-job training, coaching and mentoring, and face-to-face classroom training. What’s more, in light of the recognized association between satisfaction and job performance, management ought to consider their professed satisfaction levels regarding training methods. For that reason, management must thoroughly examine how often and for which purposes these types of training are used to train employees so as to prevent trainee fatigue. To be clear, the researcher does not recommend the total elimination of these training types, but rather endorses a more measured and deliberate utilization. Additionally, management can also improve the quality of these training types by designing them to be as interactive as possible using proven methods such as chatrooms and web conferencing to allow discussion of self-study materials.

Finally, senior management must allocate the resources necessary to ensure the influx of virtual and blended training courses are carefully developed in a manner which maximizes job performance improvements. The researcher recognizes that many factors such as flexibility and the need to reduce training travel budgets make virtual and blended learning an attractive training method, but executives and managers should resist the impression that these factors include time and cost to develop effective courses. The virtual classroom is much less forgiving than the physical classroom environment as it is very difficult to improvise once the course streams live to students (Laiken et al., 2014). According to a research study by Chapman (2010), the amount of time required to create simple, classroom instructor-led training ranges from 22 hours for every one finished hour for simple learning content and 82 hours for complex subject matter while the time required to develop eLearning courses ranges from 49 hours for basic, Microsoft PowerPoint style courses to 716 hours for every hour of highly interactive simulation-style training for complex projects. Consequently, management must allocate the resources required to
thoroughly test course materials using trial participants to confirm concepts are unambiguous and technology works as desired prior to employment to the entire organization.

**Future Research Suggestions**

This research project revealed a number of areas or topics related to training and performance worthy of further study. First, there is a need to better understand the factors affecting training transfer or the extent to which skills studied and practiced during training affect the actions of the trainee once training is complete. A better understanding of these factors will allow training managers to implement targeted changes focused on maximizing the transfer of the KSAs companies spend their training funds to instill and develop.

The second topic worthy of future study is whether there is a difference in learner performance based on training method. While previous research and this study touched on this topic, future investigations are warranted in order to specifically address whether there is a quantifiable performance difference based on whether training was administered directly by a person or by some variety of electronic media. In addition, studies about the time required to develop a virtual training that is as effective as in-person training are also merited.

Finally, there is a need to examine the training and job performance relationship with respect to other demographic parameters such as educational levels, gender, and occupation. This study concluded that the positive connection between training and job performance is consistent for U.S. and international organizations, but the relationship may not be the same with regards to the many other demographic parameters not addressed by this study. The results of further studies regarding the effect of other demographic parameters such as educational level and gender would provide senior leadership with additional information to improve training effectiveness for each subgroup of employees.
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Appendices

Appendix A ................................................................. Permission to Survey
Appendix B ................................................................. Social Media Post
Appendix C ................................................................. Survey Questions
Appendix D .............................................................. Research Review Application Approval
Appendix A

Permission to Survey

As stated in Chapter 3, the researcher plans to post invitations to the research survey on three separate Facebook groups: The Human Resources Group, Business Mastermind Group International, Job and Training News, and the researcher’s personal Facebook network. The following paragraphs serve as documentation of the permission to post survey invitations on the three Facebook group pages. Each paragraph contains the exact language from the description or purpose of each Facebook group page.

The Human Resources Group

Description

Mastermind Business Group International

Description

Business Mastermind Group is a community of business people who are interested in advancing and developing their leadership, sales and customer service skills for maximum effectiveness. The group meets on a regular basis online or in your local community to study business related
subjects by industry experts as well as interact with other participants and create a long lasting professional collaboration. The program is open to world citizens.

**Job and Training News**

*Description*

We are job and training news provider from any circumstances.
Appendix B

Social Media Post

David Beach, a graduate student in the Master of Science in Administration program at Central Michigan University, invites you to take a survey about employer-provided job training and its effect on job performance. Interested participants can access the survey at:

https://www.surveymonkey.com/r/DNVK6QL

Please note that you must be age 18 or older to participate in this study. Thanks for your help with my project. (Submitted by David Beach, MSA program, phone 937-389-0924, beach1dw@cmich.edu).
Appendix C

SURVEY

The actual survey is available at https://www.surveymonkey.com/r/DNVK6QL. The following instructions and questions have been copy and pasted into this document for convenience. Each group of questions are on a separate screen and only accessible when the respondent chooses to move to the next screen. Respondents were permitted to skip questions for any reason.

Survey Introduction

Dear Participant:

My name is David Beach and I am a graduate student at Central Michigan University. For my final project, I am examining the relationship between employer-provided training and job performance and whether this relationship varies for domestically-focused US organizations and international organizations. Because you are a member of the general populace with an expressed interest in job training, job performance, or human resources in general, I am inviting you to participate in this research study by completing this survey.

The following questionnaire will require approximately ten (10) minutes to complete. There is no compensation for responding nor is there any known risk to participating. In order to ensure that all information remains confidential, please do not include your name anywhere throughout the survey. Copies of the project will be provided to my Central Michigan University instructor and to any other interested participant. If you choose to participate in this project, please answer all questions as honestly as possible and complete the survey by clicking done after the final question. Participation is strictly voluntary and you may refuse to participate at any time.

Thank you for taking the time to assist me in my educational endeavors. The data collected will provide useful information regarding the relationship between employer-provided job training and job performance. If you would like a summary copy of this study, please send me an email request. Completion of the questionnaire will indicate your willingness to participate in this study. If you require additional information or have questions, please contact me at the number listed below.

Please note that if you are not satisfied with the manner in which this study is being conducted, you may report (anonymously if you choose) any complaints to the MSA Program by calling 989-774-6525 or addressing a letter to the MSA Program, Rowe 222, Central Michigan University, Mt. Pleasant, MI 48859.

Very Respectfully,

Mr. David Beach
Survey Instructions

For the purposes of this survey, please answer each question in accordance with your current or most recent job.

General Training Information

Definitions
US Domestic – Any organization with only US locations.
International – Any organization with US and overseas locations.

1. Do you work for a US domestic company or an international company?
   ○ US domestic
   ○ International

General Satisfaction

2. How much training have you received for your job?
   ○ A great deal of training
   ○ A lot of training
   ○ A moderate amount of training
   ○ A little training
   ○ Not any training at all

3. How helpful was the training you received when you started your job?
   ○ Extremely helpful
   ○ Very helpful
   ○ Moderately helpful
   ○ Slightly helpful
   ○ Not at all helpful

4. I am satisfied with the investment my organization makes in training and education.
   ○ Strongly Disagree
   ○ Disagree
   ○ Neutral/Neither agree nor disagree
   ○ Agree
5. I am satisfied with the job-related training my organization offers.
   ○ Strongly Agree
   ○ Strongly Disagree
   ○ Disagree
   ○ Neutral/Neither agree nor disagree
   ○ Agree
   ○ Strongly Agree

6. I am satisfied with the variety or selection of training available for my job.
   ○ Strongly Disagree
   ○ Disagree
   ○ Neutral/Neither agree nor disagree
   ○ Agree
   ○ Strongly Agree

**Training Types**

For the following questions, please refer to the following definitions.

1) Face-to-face classroom training refers to any and all classroom training facilitated by a formal instructor.
2) Computer-based training refers to any and all training conducted on a computer.
3) Coaching and mentoring refers the practice of formally pairing a junior employee with a more experienced employee for one-on-one discussions and information exchange.
4) Self-study materials refers to the practice of studying job materials (regulation, policy, training briefings, etc.) of your own personal volition and at your own pace.
5) On-the-job training refers any combination of observation, explanation, and practice used by an informal or formal trainer to train another employee.
6) Seminars/workshops refers to any conference or other meeting used to generally discuss or train personnel.
7) Other refers to any other training method used to train employees.

7. In general, what type of job training do you consider the most beneficial?
   ○ Face-to-face classroom training
   ○ Computer-based training
   ○ Coaching & mentoring
   ○ Self-study training materials
8. In general, which type of job training do you consider least beneficial?
- Face-to-face classroom training courses
- Computer-based training courses
- Coaching & mentoring
- Self-study training materials
- On-the-job training
- Training seminars/workshops
- Other (please specify)

9. What types of training and development do you believe contribute most to job performance? Please rank the following choices in order with 1 as the most beneficial and 6 at the least beneficial.
- Face-to-face classroom training
- Computer-based training
- Coaching & mentoring
- Self-study training materials
- On-the-job training
- Training seminars/workshops

**Quality of Training**

10. In general, how would you rate the quality of training provided by your employer?
- Very high quality
- High quality
- Neither high nor low quality
- Low quality
- Very low quality
- N/A - My employer does not provide training.

11. How would you rate the quality of face-to-face classroom training provided by your employer?
- Very high quality
12. How would you rate the quality of computer-based training provided by your employer?

- Very high quality
- High quality
- Neither high nor low quality
- Low quality
- Very low quality
- N/A - My employer does not offer computer-based training.
- N/A - I have not enrolled in a computer-based training course offered by my employer.

13. How would you rate the quality of coaching and mentoring provided by your employer?

- Very high quality
- High quality
- Neither high nor low quality
- Low quality
- Very low quality
- N/A - My employer does not offer coaching or mentoring.
- N/A - I have to utilize the coaching or mentoring opportunities offered by my employer.

14. How would you rate the quality of self-study training materials provided by your employer?

- Very high quality
- High quality
- Neither high nor low quality
- Low quality
- Very low quality
- N/A - My employer does not provide self-study training materials.
- N/A - I have not used the self-study training materials offered by my employer.

15. How would you rate the quality of on-the-job training provided by your employer?

- Very high quality
- High quality
- Neither high nor low quality
Low quality
Very low quality
N/A - My employer does not provide on-the-job training.
N/A - I have not used the on-the-job training offered by my employer.

16. How would you rate the quality of the training seminars/workshops provided by your employer?
Very high quality
High quality
Neither high nor low quality
Low quality
Very low quality
N/A - My employer does not provide training seminars/workshops.
N/A - I have not attended a training seminar/workshop offered by my employer.

Performance

17. Job training has increased my level of performance.
Strongly disagree
Disagree
Neither agree nor disagree
Agree
Strongly agree

18. What percentage of your current level of performance do you attribute to the job training you have received?
0%
1% - 10%
11% - 20%
21% - 30%
31% - 40%
41% - 50%
51% - 60%
61% - 70%
71% - 80%
81% - 90%
91% - 100%

19. Future job training would further increase my level of performance.
Prize Lottery

Thanks again for taking my survey. As a token of my appreciation, I would like to enter you in a prize lottery for a chance to win a free $5 Amazon gift card. A total of five gift cards will be awarded at random. Please enter the email address you would prefer to be contacted on and you will be notified if you are selected.

Your email address will not be used for solicitation purposes and will be deleted as soon as the winning gift cards are distributed.

20. If I am selected, please send my gift card to the following email address:
Appendix D

Research Review Application Approval

Dear David,

Your Research Review Application has been reviewed and approved. You may start your data collection. This approval will not expire as long as your topic and methodology remain unchanged. If your topic or methodology changes, please submit a new Research Review Application and supporting documents to your instructor by e-mail.

Please contact your instructor if you have any questions. Also, be sure to check with your instructor concerning the due dates for your project.

Good luck with your project. This is the only notification you will receive. Please keep a copy for your records.

Kim Gribben
Assistant Director, MSA Program

Christina Prout
Administrative Secretary Master of Science in Administration Program
Rowe 222 | Central Michigan University | Mount Pleasant, MI 48859
☎: 989-774-6525 ☏: Fax 989-774-2575
1-800-950-1144, ext. 6525
✉: prout1cl@cmich.edu
🌐: Visit us online!

WARNING: This message (including any attachment) may contain confidential information and is intended only for the individual(s) named. Please do not distribute, copy, or forward this e-mail without the permission of the sender. Please notify sender if you have received this e-mail by mistake and delete it from your system. Thank you.
MSA699 FINAL RESEARCH REPORT CHECKLIST

This checklist must be completed by every student and must accompany the submission of the final research report. The list includes detailed instructions and things to check in your report before submitting it for grading. Keep in mind that the capstone report is a culminating activity and the quality is a reflection on you as a graduate student. For that reason this extensive checklist is provided and MUST be used to verify that your report is in the best possible condition.

Instructions: Check each item on the list by typing your initials in the first column to verify that you have reviewed and ensured that your final research report is compliant with that item. At the end of the report include your name and your CMU identifier (e.g. kelle1pa). This indicates that you have used the checklist and are compliant with every element.

<table>
<thead>
<tr>
<th>Student Initials</th>
<th>#</th>
<th>Checklist Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB</td>
<td>1</td>
<td><strong>Cover Page</strong>: Ensure that the cover page is revised (from the proposal format) to match the final research report cover page example in the Student Guide to the MSA Capstone Project p. 18 (... submitted in partial fulfillment ....)</td>
</tr>
<tr>
<td>DB</td>
<td>2</td>
<td><strong>Title</strong>: Ensure that the title of your report is formatted using “Title Case” (Google the term to be clear about its meaning). Make sure that the correct words are capitalized.</td>
</tr>
<tr>
<td>DB</td>
<td>3</td>
<td><strong>Table of Contents</strong>: Update the table of contents and lists of figures and tables so that they match the page numbers for your completed project.</td>
</tr>
<tr>
<td>DB</td>
<td>4</td>
<td><strong>Changing from Future to Past Tense</strong>: Go through the chapters and change all sentences that refer to the future to past tense. Find any &quot;will&quot; words and change them to past tense.</td>
</tr>
<tr>
<td>DB</td>
<td>5</td>
<td><strong>Chapter 1</strong>: In the first chapter, have you provided sufficient contextual/historical background for your issue? A single, double-spaced page is probably insufficient. Is your research issue clearly delineated?</td>
</tr>
<tr>
<td>DB</td>
<td>6</td>
<td><strong>Chapter 2</strong>: If necessary, expand your literature review. It should be comprehensive and a minimum of 12 pages long. Have you adequately cited references? Is there a concise summary at the end of the chapter?</td>
</tr>
<tr>
<td>DB</td>
<td>7</td>
<td><strong>Chapter 3</strong>: Modify Chapter 3 to describe the procedures that were used to collect data and what happened when those procedures were implemented (e.g., … distributed 120 surveys and 90 surveys were returned …) Change “Data to be Collected” sub-title to “Data Collected” and change “Proposed Data Analysis Approach” to “Data Analysis Approach.”</td>
</tr>
</tbody>
</table>
| DB               | 8 | **Chapter 4**: Make sure that Chapter 4 presents and discusses your data and also includes an analysis of the data in the context of your research questions. Do not include your charts and tables as appendices – include them directly in Chapter 4. Use narrative to describe the charts and tables. Most importantly, analyze the data in terms of how it answers your research questions. Explain interest and unusual dimensions and characteristics of your data.

Did you collect real data (numbers and objective facts)? Have you effectively summarized and displayed your data? Is there analysis of the data in relation to your research questions included in Chapter 1? What does the data communicate in terms of...
your research problem and sub-problems? Remember that you need to have quantitative analysis of some sort to meet the MSA699 requirement.

Do not make the reader go to an appendix to see your charts, tables or other illustrations. Include them directly into Chapter 4.

For open-ended questions (which are very useful) structure the responses in a frequency table, with the topic/issue in column 1 and the number of respondents that discussed that issue in the open-ended question listed in column 2.

| 9 | Chapter 5: Don't cut chapter 5 too short. When developing the Chapter imagine that you have to give a presentation to senior leadership, but they do not have access to the earlier chapters. You must lay out the entire study in this chapter – the questions, the key points from the literature and data analysis, the answers to the questions and the associated recommendations. This is very important, especially in the eyes of the second faculty reader – you must provide management with a prescription to address the problem that was laid out in your paper.

  Summary Sub-Section: Summarize the key points from Chapter 2 Literature Review and Chapter 4 Data Analysis and indicate how those points related to the research questions.

  Conclusions Sub-Section: Answer the research questions presented in Chapter 1.

  Recommendations Sub-Section: Include at least 3 recommendations and ensure that they are sufficiently detailed and explain how they should be implemented. |

| 10 | Executive Summary: After writing Chapters 4 and 5 add an executive summary at the front of your report, behind the cover page but ahead of the Table of Contents. Make sure the executive summary includes the research questions, conclusions and recommendations. It should be comprehensive 1-to-2 page executive summary that presents the research questions and conclusions (answers) and summarizes your recommendations. |

| 11 | References: Ensure that the References section is located immediately after Chapter 5 and before any appendices. The references title should be centered on the first line. All references included in this section MUST be formatted as “Hanging Indentation” style. Check Google to understand this format if you are not clear about it. Double-space the references |

| 12 | Appendices: If you used a survey include the survey consent form and survey as an appendix. If you conducted interviews include the consent form and interview questions as an appendix. Include your RRA approval e-mail as an appendix. |

| 13 | Writing:

  • Ensure that there are NO one-sentence paragraphs
  • Ensure that there are NO one-paragraph sub-sections
  • Avoid extensive use of bullet lists
  • Ensure that all sub-sections have transition paragraphs
  • Ensure that all sentences are complete sentences
  • Address all grammatical problems and issues – absolutely have someone you trust review and edit the report. Also take advantage of the CMU Online Writing Center. |

| 14 | Formatting:

  • Ensure that everything in the research report is double-spaced, including the references |
• Verify that all margins are 1” – no smaller or larger
• All content must be left-justified – do not include “block justify” content
• All chapters must start on a new page

David Beach
CMU ID: beach1dw
Date When You Finalized this Checklist: 29 Jul 2016