

CORPORATE E-LEARNING: HOW THREE HEALTHCARE COMPANIES
IMPLEMENT AND MEASURE THE EFFECTIVENESS OF E-LEARNING

by

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A DISSERTATION

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ABSTRACT

Technological advancements such as the growth of the Internet provide opportunities for learning that are hard to resist. As technology continues to change at a rapid pace, e-learning has become an important priority of corporate education. E-learning is evolving as a way to train and enhance employee value by combining different learning styles and varying delivery systems to create the best learning experience possible.

One specific discipline of interest to this study is the growth of e-learning in healthcare education. Much like other sectors of the economy, the amount of online instruction for healthcare professionals has increased dramatically, but research examining the effectiveness has lagged behind. This study was conducted in response to the need for research in the effectiveness of e-learning in healthcare training and the transfer of knowledge to the workplace.

This case study examined how e-learning was developed, implemented, and evaluated in three different healthcare-related companies. The final goal was to identify how corporations determine the effectiveness of their programs and the transfer of knowledge to the job. This study followed a qualitative research design and more specifically, it was designed as a collective case study (Stake, 1995).

The results of the study indicate that in order to improve individual and organizational performance, evaluation and measurement must be essential components of the training process. There is a need for the development of uniform measurements to track the connections between learning, employee performance, and profitability. The data from this study can be used to help

guide companies and organizations in the development of future e-learning initiatives and standards. The study also illuminates the need for a comprehensive e-learning evaluation model.

DEDICATION

I would like to dedicate this dissertation to my twin sister, Amy. Although your death was untimely, you have been a constant presence in my life and have motivated me to succeed.

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Completing this dissertation was a monumental task and there were many people who provided me with encouragement and support along the way. Those named below are only few.

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CHAPTER I: INTRODUCTION

Introduction to the Problem

E-learning, which is short for electronic learning, is broadly defined by education and technology professionals. In basic terms, e-learning refers to anything using computer technology to deliver instructional material for learning. It has also been defined as “the use of information and communication technologies to deliver information and instruction to employees as part of planned efforts to increase job-related knowledge and skills” (Mital & Luthra, 2006, p. 85). Delivery methods may include content via the Internet, audio and videotapes, satellite broadcasting, interactive TV, CD-ROMs, and more. E-learning applications and processes include Web-based learning, computer-based learning, virtual classrooms, and digital collaboration (Ashmalla, Mohamed, & Ghobashy, 2001; Broadbent, 2000; Shankar, 2007).

E-learning provides a way for the corporate world to increase efficiency and effectiveness by addressing specific requirements of businesses as they develop. It also allows companies to train various departments across the country simultaneously. According to Grollman and Cannon (2003, p.45), “E-learning combines improved computer capabilities, improved telecommunications infrastructures and improved pedagogical techniques to improve training offerings cost-effectively.”

Online training allows companies to train their employees through e-learning in an engaging and interactive way, yet also provides much needed flexibility for time constraints. However, learning is of little value to organizations unless it is transferred in some way to performance (Holton, Bates, Seyer, & Carvalho, 1997). Training transfer is generally defined as

the extent to which the knowledge, skills, and abilities acquired in training can be applied, generalized, and maintained over time (Baldwin & Ford, 1988). Acquiring new knowledge, skills, behaviors, and attitudes through online training is of little value if it is not applied to the job setting. For this reason, transfer of training continues to be a focus for both human resource development (HRD) researchers and practitioners.

One specific discipline of interest to this study is the growth of e-learning in healthcare education. Much like other sectors of the economy, the amount of online instruction for health professionals has increased dramatically. However, healthcare has been slow to adopt competencies and e-learning standards. In order to improve individual and organizational performance, evaluation and measurement must be essential components of the training process.

This study will employ Holton's (1996) Transfer of Training Model as a conceptual framework. The three primary outcomes of training proposed by this model include learning, individual performance, and organizational results (Holton, 1996). This model suggests the three "crucial" factors that affect transfer of training include motivation to transfer, transfer climate, and transfer design (Yamhill & McLean, 2001).

Statement of the Problem

As companies continue to invest in e-learning in the hopes of reducing job costs and increasing job performance, managers need to know the positive impact, if any, that e-learning is having in the workplace. The problem for managers is being able to effectively assess the transfer of knowledge to the job. There are currently many different methods used to measure the effectiveness of e-learning, but not one overall "best system." Bassi, Ludwig, McMurrer, and Van Buren (2000) state that there is a lack of a standard system for measuring and valuing training investments.

Statement of Purpose

The purpose of this qualitative case study is to explore if e-learning is beneficial in training employees at the corporate level. This case study will examine how e-learning is developed, implemented, and evaluated in three different healthcare-related companies. The final goal is to identify how these corporations determine the effectiveness of their program and the transfer of knowledge to the job.

Significance of the Problem

Sloman (2002) indicates that while the practice of using computer and communication technologies for organization training has expanded rapidly, research examining the effectiveness of e-learning has lagged behind. For e-learning applications to be used efficiently in corporate education, there is a need to measure the success and effectiveness of the e-learning system systematically (Global Industry Analysts, Inc. 2008). This study was conducted in response to the need for research in the effectiveness of e-learning in healthcare training and the transfer of knowledge to the workplace. These data can help guide healthcare organizations in the development of future e-learning initiatives and performance standards.

Research Questions

The interview protocols developed for this study consist of key questions to be used to identify and compare how e-learning is beneficial in training employees in different companies (See Appendices A & B.). The central research question is as follows: Is e-learning beneficial in training at the corporate level and how is effectiveness determined?

Assumptions of the Study

For the purposes of this study, the following are assumed:

1. The study sample is representative.

2. Study participants provided honest answers based on their knowledge, understanding, and experience.
3. Study participants responded voluntarily and were not placed under any undue influence when formulating their responses.

Limitations of the Study

Limitations may place restrictions on the conclusions of the study. The known limitations to the study include the following:

1. Data were collected with a self-reporting tool that subjected the data to biases of question structure and wording, personal biases of the respondents, and authenticity of the respondents.
2. The extent to which the qualitative methods have captured the phenomenon.

The following conditions are outside of the control of the researcher:

1. All participants have unique values and beliefs that influence their perceptions, and therefore, their responses to the questions.
2. Participants may not be aware of how effectiveness of training using e-learning is determined.

Operational Definition of Terms

Asynchronous learning: Any learning event where interaction is delayed over time. This allows learners to participate according to their own schedule, and be geographically separate from the instructor.

Blended learning: Using a combination of face-to-face and online media for learning. A blended approach to learning allows instructors to use self-paced instruction, along with live collaborative teaching.

Computer-assisted instruction (CAI): Instruction delivered with the assistance of a computer. CAI software is often classified into these categories: drill-and-practice, tutorial, simulation, educational games, problem solving, and applications.

Computer-based training (CBT): Courses using the computer as the primary delivery method of instruction. For the purposes of this study, computer-based training is broadly defined as any sort of training that is computer assisted. CBT is often used interchangeably with the term Computer-assisted instruction (CAI).

Continuing Medical Education (CME): Programs that are intended to continue the medical education of physicians. Doctors are required to earn CME credits to retain their medical licenses. They may do so by taking courses, attending medical conferences where they learn about new developments, or in some cases by reading and taking a test.

Course: A focused body of instruction offered by an educational provider. A course may be made up of one or more classes.

Distance education or distance learning: Learning where the instructor and the students are separated by time and/or space. Learning can be either synchronous or asynchronous.

Distance Training: A reference to distance learning for the corporate or professional levels. It is commonly referred to as e-learning.

E-learning: A term coined to mean electronic learning. For the purposes of this study, it means learning or training that is facilitated and supported using information and communication technologies.

Learning environment: The place and setting where learning occurs; it is not limited to a physical classroom and includes the characteristics of the setting.

Learning Management System (LMS): A broad term used for a wide range of systems that

organize and provide access to online learning services for students, teachers, and administrators.

Proxy metrics: A collection of several variables to arrive at the value of an organizational performance metric. For example, profitability is a proxy metric that a company may use to gauge performance.

ROI (return on investment): A measurement calculated to evaluate the financial return on a particular investment during a specified period of time.

Synchronous learning: Any learning even where interaction happens simultaneously in real-time. For this study, it means an instructor-led, online virtual classroom that occurs at a scheduled time. Delivery can be held in a traditional classroom, or through e-learning technologies.

Training or Online training: For the purposes of this study, this term means learning over the Internet at the corporate or professional level.

Web Based Training (WBT): Training which is delivered over a network (LAN, WAN or Internet). It can be either instructor-led or computer based.

Webinar (short for Web-based Seminar): A seminar or presentation that is transmitted over the Internet. By using a telephone and the internet, a broad audience of attendees can participate in a seminar without having to leave their desks.

Summary

The following chapters in this study provide the reader with a working knowledge of e-learning and its role in corporate education, highlighting healthcare organizations. It presents a review of literature and theory relative to the subject, a description of the methodology used to collect the data, and an analysis of the data collected from each of the three companies. The final section of the study offers conclusions made from the study and suggests implications for the development of future e-learning initiatives and performance standards.

CHAPTER II: REVIEW OF THE LITERATURE

Introduction

The purpose of this literature review is to provide the reader with a knowledge of e-learning and its role in the corporate world, specifically healthcare-related organizations. It looks at previous academic and scholarly research that reflects on corporate training by means of e-learning.

E-learning is evolving as a way to train and enhance employee value by combining different learning styles and varying delivery systems to create the best learning experience possible. The problem is that companies are still unsure of how people learn the most efficiently online, which leads them to examine their investments and decisions about corporate training and knowledge resources. This literature review explores why companies choose e-learning as an option for learning, including the benefits and business results. The scope includes a review of academic and popular literature on e-learning. This literature review also seeks to provide a meaningful background on corporate e-learning and what has led to the need for this study. The results will focus primarily on e-learning in healthcare-related companies.

A review of literature revealed that there is a need for research that focuses on the effectiveness of e-learning and the transfer of knowledge to the workplace. This review also seeks to illuminate the need for a credible evaluation to measure the effectiveness. Standards and measurements must be developed to track the connections between learning, employee performance, and profitability.

Section I: What is E-learning?

Technological advancements such as the growth of the Internet provide opportunities for learning that are hard to resist. As technology continues to change at a rapid pace, e-learning has become an important priority of corporate education. E-learning is a term used to describe using computer technology to deliver instructional material for learning. Content may be delivered by web-based training (WBT), computer-based learning (CBL), virtual classrooms, and digital classrooms (Ashmalla, Mohamed, & Ghobashy, 2001; Broadbent, 2000; Shankar, 2007). Delivery methods include content via the Internet, audio and videotapes, satellite broadcasting, interactive TV, CD-ROMs, and more. Various devices may also be used to deliver training such as workspaces, laptop computers, cell phones, handheld computers, smart phones, and even iPods.

E-learning provides a way for the corporate world to increase efficiency and effectiveness by delivering work based training to achieve key performance targets as they develop. Examples include the effective delivery of statutory and mandatory training, as well as improving the skill levels to produce staff that can both work and advise across different areas (Clarke et al., 2005). It also allows companies to train various departments across the country simultaneously. “E-learning combines improved computer capabilities, improved telecommunications infrastructures and improved pedagogical techniques to improve training offerings cost-effectively” (Grollman & Cannon, 2003, p. 45).

Types of Delivery

E-learning is frequently discussed in the context of synchronous, asynchronous, or blended learning. The choice of method depends on the content and speed required for learning. Synchronous learning stands for an instructor-led, online virtual classroom that occurs in

“real-time.” Trainers and students “meet” at a specified time in a virtual classroom and are able to receive information simultaneously and communicate directly with other learners (Ruiz, Mintzer, & Leipzig, 2006). Examples of this include virtual classrooms, audio/video teleconferencing, Internet chat forums, instant messaging, and two-way live satellite broadcasts of lectures to students in a classroom (Bachman, 2000; Ruiz et al., 2006).

Asynchronous learning is more flexible in that it does not require simultaneous participation of all learners and instructors. Asynchronous learning allows people to learn at anytime, anywhere, at their own convenience. This can include just-in-time training where a person gets exactly the training he or she needs to perform a task, when he or she needs it. Asynchronous learning usually uses multimedia to make learning more interactive and engaging for learners. Examples of this include: self-paced courses via the Internet or CD-ROM, interactive tutorials, videotaped classes, streamed audio/video Web presentations, Q&A mentoring, Weblogs, online chats and discussion groups, and e-mail and listservs (Bachman, 2000; Ruiz et al., 2006; Zhang & Nunamaker, 2003).

Many businesses are now using technology blended with more traditional training methods for their employees (Pulley, 2005). Blended learning can be defined as using a combination of face-to-face and online media for learning. A blended approach to learning allows instructors to use self-paced instruction, along with live collaborative teaching. Some people benefit more from a blended delivery method than e-learning alone because they are able to have direct human contact (Brodsky, n.d). In fact, it is viewed by most as not only the most effective approach to learning (Childs et al., 2005; Clarke, Lewis, Cole, & Ringrose, 2005), but also “offering additional benefits in terms of cost reduction and improving levels of student monitoring” (Clarke, Lewis, Cole, & Ringrose, p. 39). An example of the blended approach

might include combining extensive e-learning modules with online support, collaboration, and coaching.

Benefits of E-learning

There are many benefits associated with using e-learning as a training tool in companies and corporations. The goal is not just to train employees, but to gain better business advantages as well. The most commonly cited benefits include lower course fees, reducing travel costs, and minimizing lost productivity and work time on the job (Clarke et al., 2005; Grollman & Cannon, 2003; Shankar, 2007; Wurtmann & Galli-Debicella, 2008; Zhang & Nunamaker, 2003).

According to Grollman and Cannon (2003), “well-designed e-learning is usually as effective as classroom training and much less expensive for addressing the training needs of a large audience” (p.46).

Another benefit is the flexibility e-learning offers employees in relation to time and delivery constraints (Clarke et al., 2005). E-learning allows people to choose the time and place of training and to work at their own pace (Ashmalla et al., 2001; Childs, Blenkinsopp, Hall, Walton, & Graham, 2005; Grollman & Cannon, 2003; Shankar, 2007). Employees from diverse geographical locations are allowed to participate in synchronous or asynchronous training sessions from the convenience of their own desk (Pulley, 2005). This allows for “24 hour access to knowledge and learning resources, 365 days per year, from places that are most convenient for individuals and groups” (Childs et al., 2005, p. 22). It also makes it possible for important company information to be disseminated in an interactive format to a large audience (Grollman & Cannon, 2003).

“It is estimated that 50% of all employees’ skills become outdated within 3 – 5 years” (Zhuang & Nunamaker, 2003, p. 207). Corporate education and e-learning allow workers the

opportunity to keep their skills continually updated and abreast of any new job-related training. By using e-learning, people are able to select a course or learning objective on an as-needed basis to meet a specific learning need when required (Duggan & Barich, 2001; Grollman & Cannon, 2003; Shankar, 2007). “Learning can be customized to the workers need” by allowing them to select their own learning materials and be able to review the information as often as they like (Shankar, 2007, p. 1). Examples of this might include new employee orientation or harassment and safety trainings (Grollman & Cannon, 2003). In addition, electronic content allows instructors to update lessons across the network simply and instantly, keeping information fresh and up-to-date. Finally, it makes it easier to manage the widespread distribution of digital content and track the usage of learners (Grollman & Cannon, 2003; Ruiz, Mintzer, & Leipzig, 2003).

The ultimate goal of training is to teach employees the knowledge and skills needed to perform their jobs successfully and to achieve business results in the workplace. Research shows that when corporate training only offers print materials for reading, it decreases the percentage of information retention for employees (Wurtmann & Galli-Debicella, 2008). “Evidence suggests that e-learning is more efficient because learners gain knowledge, skills, and attitudes faster than through traditional instructor-led methods” (Ruiz et al., 2006, p. 208). *Training Magazine* also reports that technology-based training has proven to have a 50 – 60% better consistency of learning than traditional classroom learning because students have more control over their learning process (Bachman, 2000). E-learning is able to address individual differences in learning styles by offering a variety of activities, such as games, a series of questions, or even job simulations (Peretti, 2008; Shankar, 2007). In turn, higher retention of material puts a higher value on every dollar spent on training.

Learning Management Systems

As online training continues to grow and evolve, more and more companies and corporations are attempting to consolidate their departmental systems into a centralized, corporate learning management system (LMS). According to PCMAG.COM (2009, para.1), an LMS is defined as:

An information system that administers instructor-led and e-learning courses and keeps track of student progress. Used internally by large enterprises for their employees, an LMS can be used to monitor the effectiveness of the organization's education and training. It is also beneficial in ensuring state- and federal-mandated courses are delivered in a timely manner.

It seems like the perfect solution to online training. An LMS can optimally “consolidate mixed-media training initiatives, automate the selection and administration of courses, assemble and deliver learning content, and measure learning effectiveness and integrate with other enterprise applications” (Hall, 2003, p. 3).

E-learning in Healthcare

One specific discipline of interest to this study is the growth of e-learning in medical education. Over the last decade, there has been increasing interest in the use of computers to facilitate collaborative learning between healthcare professionals for continuing professional development (Sandars et al., 2003). In fact, “continuing medical education (CME) on the Internet has grown steadily over the past several years” (Olson & Shershneva, 2004, p. 100). “There is a constant need to rapidly train and retrain people in new technologies, products, and services” within the medical and healthcare setting (Harun, 2001, p. 301). These needs range

from heightened expectations for improved healthcare services to accelerated technological changes.

Physicians are increasingly able to earn continuing medical education (CME) credits through online courses. According to Harden (2005), “CME is as critical to the improvement of health care delivery as research and new discoveries in medicine and the medical sciences” (p. 43). CME focuses on “supporting individual physicians with a responsive learning system where each physician has a self-directed curriculum of learning for which he or she will be accountable” (Harden, 2005, p. 44).

“It has become increasingly recognized that continuing professional development for healthcare professionals is most effective when there is active interaction and sharing of knowledge between individuals” (Sandars et al., 2007, p. e9). The results of e-learning in medical education have demonstrated increased retention rates and better utilization of content, in turn, resulting in higher achievement (Ruiz, 2006, p. 208). “E-learning provides a bridge between the cutting edge of education and training and outdated procedure embedded in institutions and professional organizations” (Harden, 2005, p. 43).

“Although the amount of online instruction for health professionals has increased dramatically, most has not been rigorously evaluated” (Casebeer, Kristofco, Strasser et al., 2004, p. 69). “Like other forms of education, health professions education is increasingly competency-based” (Hersh, Bhupatiraju, Greene, Smothers, & Cohen, 2006, p. 334). However, healthcare has been slow to adopt competencies and e-learning standards despite the fact that many health profession educators advocate the use of e-learning (Hersh et al., 2006).

Section II: Evaluation and Assessment

How is Effectiveness Determined?

A review of literature reveals that although e-learning continues to grow at a rapid pace and spread among different disciplines, many business managers are left unsure as to whether e-learning is even effective. Program evaluation is rarely planned and when it is, companies do not know what to measure and how to use this information (Moller, Foshay, & Huett, 2008). The most significant problem is that there is no clear definition of how to define e-learning effectiveness.

Companies of every sector of the economy determine and measure the effectiveness of e-learning in different ways. Some companies measure the effectiveness of performance and others measure the outcomes of the program. Effectiveness in performance can mean quality, quantity, or a new way of doing business. The results focus on the strengths and weaknesses of how results are produced. An outcome evaluation focuses on “changes in learners’ knowledge, skills, or attitudes” (Ruiz et al., 2006, p. 210). The outcome of effective e-learning might include improved performance, greater speed to market, increased operating efficiency, higher retention, and greater return on investment (ROI). Each of these might be used by a company to compare their company’s performance to earlier training programs.

For this study, “effective e-learning” will refer to the learners’ performance and how it is reflected by things such as knowledge gains, training applied to the job, and returns on training investment. Performance measures are crucial to corporate training. According to Berk (2003), “if you don’t know which programs had the greatest impact on the job and the company’s business objectives then your measurement system has some significant shortcomings” (p. 2).

Much like other sectors of the economy, effective e-learning in medical education could be enhanced by emerging standards for e-learning (Hersh et al., 2006). It is necessary for web Continuing Medical Education (CME) providers to apply high quality standards in order to provide “a bridge between research findings and the day-to-day practice of CME” (Olson & Shershneva, 2004, p. 101). The choice of standards for a web-based CME program depends on the primary purpose of the program, which could include “dissemination of knowledge, changing physician behavior, or raising the visibility and stature of the institution or program” (Olson & Shershneva, 2004, p. 107).

Ways for Assessing Staff Growth and Training on the Job

There are many approaches to the evaluation of e-learning. Some companies integrate built-in training measurements into e-learning implementation to measure knowledge transfer by providing pre-assessments, periodic assessments, and post-assessments. The pre-assessment is used to identify the participant’s level of skill before training; periodic assessments are used to measure learner progress; and a post-assessment is used to quantify overall gains in skill development (Berk, 2003; Brodsky, n.d.; Peretti, 2008). This particular type of training is impractical for many companies due to the amount of money it takes to successfully achieve. Companies do not want to spend more on measurement than the training itself (Berk, 2003). According to Tai (2005), “effectiveness of a program ultimately means the benefits of e-learning are outweighing the costs of resources required for implementing it” (p.6).

Despite the different ways companies choose to evaluate online training programs, current return on investment (ROI) models of evaluation are rarely used to assess e-learning due to the time and money it requires. “Since evaluation of e-learning is necessary to demonstrate its worth, the need for better and more widely used evaluation models is critical to the future of e-

learning” (Moller et al., 2008, p. 71). Companies want research data that training courses are of high quality and value so that their employees are able to transfer what they have learned in training to their job. In order to help businesses measure the value of their employees and their knowledge, proxy metrics need to be created and implemented for ROI analysis (Duggan & Barich, 2001). Finally and most importantly, uniform measurements must be developed to track the connections between learning, employee performance, and profitability.

Section III: Transfer of Training

The most commonly used methodology for evaluating corporate training programs is the Learning Levels model by Dr. Donald Kirkpatrick. Kirkpatrick’s classic model for measuring traditional learning is applicable for e-learning as well (Kramer, 2007; Moller et al., 2008; Ruiz et al., 2006; Strother, 2002). The four levels of Kirkpatrick’s evaluation model essentially measure: (a) reaction of the students as to what they learned, (b) learning or gaining knowledge, (c) transfer as a measure of changes in behavior upon returning to work, and (d) results of the trainee’s performance in business (Kirkpatrick, 1979). Dr. Jack Phillips later added a fifth level to Dr. Kirkpatrick’s Learning model. His model builds on Kirkpatrick’s four levels of evaluation and also includes the level of Return on Investment (ROI) (Berk, 2003, p. 3). However, this model has been criticized for not being grounded in research. Holton (1996) argues the model is fundamentally flawed because it does not take into account the many contextual factors that may affect the transfer of learning.

On the other hand, Holton’s (1996) Transfer of Training Model focuses on individual performance. The three primary outcomes of training proposed by this model include: learning, individual performance, and organizational results (Holton, 1996). This model suggests the three “crucial” factors that affect transfer of training include: ability and motivation of the trainee

(motivation to transfer), relevance of the training to the needs of the trainee and the organization (transfer design), and the receptiveness of the workplace organization to the transfer of the learning (transfer climate). Ability is seen to affect learning, transfer design affects individual performance, and training to organizational goals affects organizational results.

Training Transfer

Motivation to Transfer

Motivation to transfer is defined as the learner's desire to utilize skills and knowledge learned in training to a real world work situation (Noe, 1986). This was hypothesized in Holton's (1996) model to connect learning with individual performance change (Yamnill & McLean, 2001). This theory is categorized into three theories: equity theory, expectancy theory, and work setting theory. To reach the desirable degree of transfer of training, it is important to understand why individuals choose to apply their knowledge, skills, and attitudes in their workplace (Yamhill & McLean, 2001).

According to Holton (1996), motivation to transfer comprises four categories: intervention fulfillment, learning outcomes, job attitudes, and expected utility. Intervention fulfillment can be related to the expectancy theory and refers to the trainees' perceptions of what they have learned and if it has met their expectations and fulfilled their need for performance-related learning. Learning outcomes is related to the expectancy theory that suggests "individuals will be more motivated" to learn if they believe their efforts will improve performance (Yamnill & McLean, 2001, p. 200). Job attitudes means that a person's commitment and job satisfaction should influence motivation to learn and transfer learning to job performance. Finally, expected utility or payoff, is consistent with the expectancy theory that trainees will be more motivated to transfer if they perceive their efforts will lead to rewards.

Transfer Climate

Holton's (1996) transfer of training model included "transfer climate" as the mediating variable between organizational context and a person's job attitudes and work behavior as a result of an individual's perception of his work environment. Transfer climate has been defined as those situations and consequences in organizations that either inhibit or facilitate the use of what has been learned in training back to the job (Burke & Hutchins, 2007). "Features of a positive transfer climate have been identified as cues that prompt trainees to use new skills, consequences for correct use of skills and remediation for not using skills, and social support from peers and supervisors" (Burke & Hutchins, 2007, p. 280). A positive transfer climate includes adequate resources, cues to remind trainees what they've learned, opportunities to use new skills, timely feedback, and positive consequences for using new training (Rouiller & Goldstein, 1993).

"Organization theory describes organizational climate supporting transfer of training in Holton's model" (Yamnill & McLean, 2001, p. 203). Organization theory supports aspects of the transfer climate variable. According to Kozlowski and Salas (1997), organizational theory asserts that trained knowledge, skills, and attitudes at the individual level are embedded in unit level technology, coordination processes, and social system contexts with broader contextual constraints starting at higher system levels. This theory implies that preparing individuals to accept change and encourage them to express their new skills in the work environment requires training that is delivered at the appropriate level and is aligned with contextual supports (Yamnill & McLean, 2001).

Transfer Design

Transfer design refers to the degree to which training has been designed and delivered in such a way that it provides trainees the ability to transfer learning back to the job (Holton et al., 2000). Training design includes purposeful elements that are part of the training program to enhance the possibility of transfer. According to Holton (1996), one cause of failure to transfer is that training design rarely provides for transfer of learning. “That is, cognitive learning may well occur, but program participants may not have an opportunity to practice the training in a job context or may not be taught how to apply their knowledge on the job” (Yamnill & McLean, 2001, p. 200). Transfer should be built into the training design by integrating empirically supported strategies within the training program.

The two primary design theories that describe the conditions necessary for transfer are the identical elements theory and the principles theory. First, the identical elements theory suggests that transfer of training occurs when the training material is identical to that which the trainee performs in an actual context, also called near transfer (Kim & Lee, 2001). Therefore, transfer is maximized according to the extent to which the tasks, tools, equipment, and environment in the training setting are similar to those in the work setting. Identical elements theory supports a near transfer of training approach which is where the training enables trainees to apply their knowledge and skills to known predictable conditions of their job (Kim & Lee, 2001). Based on this theory, the training environment is identical to the work environment and the work environment features are predictable such as in training to use equipment (Noe, 2002). This theory suggests the more the training content and program reflects the workplace, the greater the near transfer (Baldwin & Ford, 1988).

The principles theory suggests that training should focus on the general principles or most important features necessary to learn a task so that the learner may use them to solve problems as part of the transfer task (Goldstein & Ford, 2002). The principles theory emphasizes a far transfer of training approach where general principles are applicable to different work situations in a work environment that is typically unpredictable and characterized by a high degree of variability (Noe, 2002). Trainees are expected to learn concepts and principles to deal with situations that may not be encountered during training (Kim & Lee, 2001). In contrast to the specific stimuli and response elements of identical elements, principles theory maintains a broader perspective focusing on the general principles in the original learning and transfer situations. The general principles theory basically suggests that the more trainees practice in different contexts and use novelty in practice exercises, the greater the far transfer (Baldwin & Ford, 1988; Goldstein & Ford, 2002).

Training Outcomes

Learning

According to Holton (1996), learning is the achievement of the desired learning outcome in an HRD training program.

Individual Performance

A change in individual performance is defined as a result of learning being applied to the job. In turn, results at the organizational level are seen as a direct consequence of change in individual performance (Yamnill & McLean, 2001).

Organizational Results

Results at the organizational level are seen as a direct consequence of change in individual performance (Holton, 1996).

Summary

The ultimate goal of training is to teach employees the knowledge and skills needed to perform their jobs successfully and to achieve business results in the workplace. E-learning is able to address individual differences in learning styles by offering a variety of activities (Peretti, 2008; Shankar, 2007). Evidence suggests that e-learning is more efficient because learners gain knowledge, skills, and attitudes faster than through traditional instructor-led methods (Ruiz et al., 2006).

The review of literature reveals that companies measure their programs in different ways. Some focus on the aspect of process and others focus on the outcomes. Process evaluation examines how an e-learning program's results are produced and observes its strengths and weaknesses. Program effectiveness can also be measured by outcome changes in "learners' knowledge, skills, or attitudes" (Ruiz, 2006, p. 210). The outcome of effective e-learning might include improved performance, greater speed to market, increased operating efficiency, higher retention, and greater return on investment (ROI).

Another problem is that corporations are still unsure if learners are actually acquiring and using the skills learned, and if they are, how they are learning the most efficiently online. This leads corporations to examine their investments and decisions regarding online training. One specific discipline of interest to this study is the growth of e-learning in healthcare education. Much like other sectors of the economy, the amount of online instruction for health professionals has increased dramatically. However, healthcare has been slow to adopt

competencies and e-learning standards. Effective e-learning in medical education could be enhanced by emerging standards for e-learning (Hersh et al., 2006, p. 334).

In order to see more immediate results and rapid progress in the area of corporate e-learning, several things need to happen. First, there is a need for a comprehensive, systematic study on how to assess learner performance the most efficiently and effectively in order to make changes to instructional content (Zhang & Nunamaker, 2003). Finally and most importantly, uniform, proxy measurements must be developed to track the connections between learning, employee performance, and profitability.

CHAPTER III: METHODS

Introduction

As previously mentioned, the purpose of this qualitative case study was to explore if e-learning is beneficial in training employees in the discipline of healthcare at the corporate level. This case study examined how e-learning was developed, implemented, and evaluated in three different healthcare-related companies. The final goal was to identify how corporations determine the effectiveness of their programs and the transfer of knowledge to the job. This study followed a qualitative research design and more specifically, it was designed as a collective case study (Stake, 1995). These data can also help guide companies and organizations in the development of future e-learning initiatives and standards.

Section I: Research Design

Conceptual Framework

Organizations spend enormous amounts of money, time, and effort in order to train employees and workers. Because of this, it is important for organizations to benefit from their investments in training and development to ensure that training is transferred to the job. Transfer of training continues to be a focus for both human resource development (HRD) researchers and practitioners. Training transfer is generally defined as the extent to which the knowledge, skills, and abilities acquired in training can be applied, generalized, and maintained over time (Baldwin & Ford, 1988). However, learning is of little value to organizations unless it is transferred in some way to performance (Holton, Bates, Seyer, & Carvalho, 1997). Positive training transfer is

defined as the extent to which what is learned in training is applied to the job and improves job performance (Yamhill & McLean, 2001).

“Although several studies have been conducted to understand the transfer of training process, conceptual models for understanding this process are limited” (Velada, Caetano, Michel, Lyons, & Kavanagh, 2007, p. 282). Drawing from earlier research (Baldwin & Ford, 1998; Noe, 1986; Rouiller & Goldstein, 1993), Holton, Bates, and Ruona (2000) define transfer system as all the elements involving the trainee, the organization, and the training transfer to job performance. Combining these elements with Baldwin and Ford’s model, three main determinants of training transfer include: training design, trainee characteristics, and work environment, or transfer climate.

This study employed Holton’s (1996) Transfer of Training Model as a conceptual framework because it more fully reflects the different factors that affect training transfer. Furthermore, it is the only model that suggests a role for training design factors. The three primary outcomes of training proposed by this model include: learning, individual performance, and organizational results (Holton, 1996). This model suggests the three “crucial” factors that affect transfer of training include: motivation to transfer, transfer climate, and transfer design (Yamhill & McLean, 2001).

The following questions, as discussed in Chapter I, are based on Holton’s (1996) transfer of training model and serve as a framework for the study. The overarching question which this research addressed was, “Is e-learning beneficial in training at the corporate level and how is effectiveness determined?” The following sub-questions were explored to guide data collection and analysis:

1. What are the design and training processes in each company?

2. For each company, what themes emerge to provide an understanding of the implementation process?
3. What are the cross-case themes?
4. Based upon the description of each company, what assertions can be made about e-learning effectiveness in the corporate setting?

Overview of Qualitative Research

According to Creswell (2007), qualitative research is an inquiry approach useful for exploring and understanding a central phenomenon. Qualitative research offers the opportunity to explore the directions that participants and their experiences may take as well as to gain deeper understanding through natural interaction. “Being open to any possibility can lead to serendipitous discoveries” (Merriam, 1998, p.121). Participant answers provide valuable insight in terms of the questionnaire, the training program, and areas for improvement.

The conceptual framework of this study was to investigate how e-learning is developed, implemented, and evaluated in companies and corporations. The study explored if e-learning is actually beneficial in training at the corporate level and if improvements are made in job performance by using e-learning. The primary focus of this particular study was three different healthcare-related organizations. In order to learn about this phenomenon, the researcher asked participants broad, open-ended questions and collected detailed views from participants. The researcher then analyzed the information for descriptions and themes and interpreted the meaning by drawing on personal reflections and research.

Case Study

A case study is an investigation defined by an interest in a specific phenomenon within its real-life context. This dissertation employed a qualitative case study research as defined by

Merriam (1998) as “an intensive, holistic description and analysis of a bounded phenomenon” (p. xiii). Creswell (1998) defines a case study as an exploration of a “bounded system” or a case over time through detailed, in-depth data collection involving multiple sources of information rich in context.

More specifically than general case study, this dissertation may be considered a multiple-case study (Yin, 2003) or a collective case study (Merriam, 1998; Stake, 1995) as there were three different companies participating in the research. A multiple-case study design allows the researcher to explore the phenomena under study through the use of a replication strategy. Yin (1994) compares the use of the replication strategy to conducting a number of separate experiments on related topics for each case. Multiple cases strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the theory. Through this approach, the researcher was able to generate a theory that explains the phenomenon of interest.

Researcher Positionality

An important component of any qualitative research study is the researcher’s ability to maintain a reflexive consciousness. Reflexivity helps researchers conceptualize their own subjectivity in data interpretation and representation of experiences in the research process. It also “allows researchers to be critical of their own biases and opens the door to examining ways in which they are a part of the setting, context, and social phenomenon of the study” (Padgett, 2004, p. 135).

In contemplating my role as a researcher, my goal was to be as unbiased as possible. As a student with an emphasis in Instructional Technology, I am very passionate about this study and have a strong desire to understand how technological learning programs are designed, utilized, and evaluated the most effectively. In preparing to do this study, I realized that, at

times, I might disagree with the way a company implements and measures the effectiveness of its program. However, by being reflexive, I was able to strengthen my commitment to the research based on building relations of mutual respect and recognition. In this way, I was able to better situate the research and knowledge production so that ethical commitments were maintained.

Verification Procedures

Creswell (2007) recommends having at least three verification procedures in order to establish the credibility and trustworthiness of a study. These strategies were employed in this study to ensure the accuracy of data analysis.

First, member checking was used to ensure credibility. Member checking is considered an important method for verifying and validating information observed or analyzed by the researcher (Merriam, 1998). In member checking, the researcher provides one or more of the participants in the study with a preliminary analysis in order to check the accuracy of the account (Creswell, 2007). This helps the researcher make sure all interpretations are fair and representative of what was captured.

Triangulation was another strategy the researcher used in data collection and analysis for achieving trustworthiness. Researchers use multiple data sources and methods in triangulation to provide corroborating evidence to clarify meaning and to verify the repeatability of an observation or interpretation (Creswell, 2007; Stake, 1995). In this study, data were collected using face-to-face interviews and documents received from each company.

Finally, the researcher used peer debriefing as a process to enhance credibility. Peer debriefing provides the researcher with an opportunity to explore aspects of the inquiry through analytical probing. In using this strategy, a peer asks the researcher hard questions about methods and interpretations in order for the researcher to become aware of her feelings toward

data and analysis (Creswell, 2007). The dissertation committee served as peer reviewers for this study. This process was also used in the final stage of the study to assist in the efforts to address projected dilemmas and present the implications of findings for other qualitative researchers.

Section II: Population, Participants, Data Collection, and Analysis

Setting of the Study

The site for this study took place at three different healthcare-related organizations, which included: Whitney University Hospital, Weston Regional Hospital, and Adam Medical Center (pseudonyms). The companies were selected based on three criteria. First, the companies were located in central or north Alabama. Second, the companies implemented e-learning as a method to train employees. Finally, the companies were chosen because the researcher was able to get permission to interview their e-learning professionals. The three healthcare organizations ranged in size, but each company had been implementing online training for more than five years.

Participants and Study Sample

The site for this study was three healthcare organizations located within a southeastern state. The participants were chosen through purposeful sampling by selecting individuals who possess in-depth knowledge and experience related to the phenomenon. The researcher made a deliberate effort to select participants who could bring richness and depth to understanding the phenomenon of the study (Creswell, 2007). The sample consisted of the Educational Director or Manager from each facility, and at least four additional employees that have participated in e-learning for training purposes.

Data Collection

This study included multiple sources and methods of data collection (Merriam, 1998; Miles & Huberman, 1994; Stake, 2000). The methods involved emails, interviews, and a study of documents. Specifically, four steps were followed in the data collection process: (a) e-mail request for interviews, (b) open-ended interviews, (c) in-depth study of documents, and (d) a summary write-up of each case.

Step One: E-mail request for interviews

The first step consisted of sending emails to the Directors of Education and Training at three different healthcare facilities (Appendix A). The researcher first identified the directors of each company from each company's website. The purpose of the email was to explain the research criteria and to gain permission to conduct the research at each company. Once this was obtained, a second group email was sent to additional employees in the companies in order to recruit more participants (Appendix B) on a voluntary basis. In each case, the Director of Education provided the researcher with email addresses for the other employees.

Step Two: Open-ended Interviews

The second and primary step in data collection included open-ended interviews with each participant, which were conducted in person by the researcher. I began by giving the interviewees an overall scope of what I was trying to accomplish so that they would have a sense of where their particular area of expertise would fit into the overall framework. My first interview at each company was with the Education Director, or Training Manager (Appendix C). I then used a similar interview protocol (Appendix D) to interview other employees that had participated in the online training at each company. The number of interviewees at each

company varied between four and five, depending on the key players involved in the various aspects of e-learning.

The purpose of these interviews was to gain a full understanding of (a) how each company designs and implements e-learning, (b) how e-learning is assessed, and (c) how each employee perceives the effectiveness of online training. The interviews were conducted at each participant's place of employment and took approximately 45 minutes. The interviews were audio taped by the researcher and transcribed using digital media for data analysis. (See Appendices C & D for Interview Protocols). The determination of effectiveness was made from the interviewees' perspectives of how they define and measure effectiveness of their program and the transfer of knowledge to the job.

Step Three: In-depth Study of Documents

The third step included an in-depth study of documents received from education directors at each facility. This review of documents included: company training websites, employee assessments, instructional design policies and procedures, and training material in both paper form and on the training website. The aim was to examine the pedagogy and teaching style of each participating company.

Step Four: Within Case Report

At the end of each step, the researcher wrote up a summary of the data collected for each company, called a within-case report. A printed copy of the report was sent to each participant to insure accuracy.

Data Analysis

According to Hatch (2002), “data analysis is a systematic search for meaning” (p. 148). This “systematic search” in qualitative case study research amasses huge amounts of raw data, making it essential to maintain the data in an organized fashion and timely pace (Merriam, 1998; Yin, 2003). For this reason, data analyses were conducted immediately after collecting information and were ongoing. As Merriam (1998) states, “the right way to analyze data in a qualitative study is to do it simultaneously with data collection” (p. 162).

Data analyses were ongoing. The process began with coding the interview material by major themes, ideas, and concepts. The coding process was a way to generate a description of the setting as well as themes for further analysis. Interim analysis helped to identify recurrent themes within the data and provided guidance for the next steps in data collection. Review of all the data provided a general sense of what the overall finding would be.

Documenting any changes that occurred and how they impacted the study ensured dependability. According to Creswell (2007), the triangulation process involves corroborating evidence from different sources to shed light on themes. Triangulating the various sources of information gathered through interviews, e-mails, and documents from each site, aided in validating the study.

The within-case analysis process began by considering every statement in the interview as equal in value while relevant statements emerging from the data were highlighted. Next, the researcher used horizontalization to delete any irrelevant, repetitive or overlapping statements that occurred. The researcher then read and re-read the interview responses several times in order to gain a picture of the data as a whole. As themes emerged, the researcher recorded and organized relevant thematic statements. In order to be characterized as a theme, the researcher required the

presence of at least two significant coded responses. This allowed the researcher to address the research questions for each case and present an in depth within-case analysis for each company in Chapter IV. Chapter V includes the cross-case analysis of the companies where the similarities and differences are elaborated upon.

CHAPTER IV: WITHIN-CASE ANALYSES

Chapter III established and justified the methodological framework and data collection procedures used for conducting the current research. The present chapter shows and brings to a close the findings about the research issues of the study for each of the three case studies. The findings are a result of the analysis of the data collected via in-depth interviews with education directors from each site, as well as other employees and documents from each company. The findings of each case study are individually presented in this chapter because each case study represents an independent, information-rich experiment (Stake, 1995; Yin, 2003).

The within-case analysis highlights the individual characteristics of each case and leads to the comparison and contrast that will be presented in the cross-case analysis displayed in Chapter V. By presenting each individual case first, the pedagogical strategies used are examined within their own context. Therefore, the chapter is organized as follows: (a) within-case analysis for Whitney University Hospital, (b) within-case analysis for Weston Regional Hospital, and the (c) within-case analysis for Adam Medical Center. Thick descriptions and direct quotes taken from the various sources in the data collection are included to illustrate explanations.

The purpose of these interviews was to gain a full understanding of (a) how each company designs e-learning, (b) how each company implements e-learning, (c) how e-learning is assessed, and (d) how each employee perceives the effectiveness of online training.

The within-case analysis chapter begins with a brief profile of each single case study. The names of the companies and participants have been changed to protect their confidentiality. Pseudonyms have also been used for the learning management systems used by each company. The findings for each single case are explained using the process of data reduction, data display, and drawing of conclusions and verifications (Miles & Huberman, 1994).

Case One: Whitney University Hospital

Whitney University Hospital (WUH) is a large healthcare organization located in a southeastern state that was established in 1945. WUH is a 900-bed facility that serves approximately 35,000 patients annually. According to their website, WUH's Mission Statement is as follows:

Whitney University Hospital is committed to providing a continuum of health services of the highest quality. The resources of the hospital and expertise of the staff are expected to set a national standard for healthcare delivery. These commitments recognize our primary responsibility to the citizens of our state and support the overall mission of Whitney University.

For this particular case, I interviewed Jane, the Manager of Education, as well as four additional employees from WUH that participate in online training. These participants worked in various departments and included: Jim, M.J., Carla, and Suzy (pseudonyms). Jim works in Hospital Administration, M.J. is the Manager of Cardiographics, Carla is a Database Specialist, and Suzy is the supervisor of the Urology Clinic.

Because this hospital is so large, online training for employees is almost a necessity in order to reach each employee with as little disruption as possible. According to Jane, they have a contract with Medical Stream, an e-learning vendor, to provide online training. Some employees

do more online training than others, depending on their area of specialty, but every person interviewed from this company participates in annual compliance training.

WUH's Learning Management System

The Medical Stream Learning Center is an Internet-based learning management system (LMS). According to the Manager of Education, “[Medical Stream] is like the Cadillac of learning management systems.” This system is designed to manage, deliver, track and report blended learning initiatives. The Medical Stream Learning Center also boasts a growing library of regulatory courseware to meet annual training requirements for the Joint Commission, Occupational Safety and Health Administration (OSHA), Centers for Medicare and Medicaid Services (CMS), the Center for Disease Control and Prevention (CDC), and other regulatory agencies.

Medical Stream provides the hospital with access to a library of pre-built templates and images that can be customized to WUH. With the Medical Stream Authoring Center, the education department is able to design, develop, and publish courses customized to meet the specific needs of WUH. Once courses are created, they can be posted to the Assignments section of the Medical Stream System.

A basic assessment tool for creating true/false, yes/no, and multiple choice questions is also a function of the Medical Stream Learning Center. These assessments are available to staff members anytime and it automates the tracking and reporting functions. After the training, the program records completed sessions in transcript form.

E-learning Design

Whitney University Hospital utilizes Medical Stream to provide online training for orientation, compliance training, regulatory training, and continuing education. In addition to

online training, WUH also provides classroom learning for clinical issues that can be followed up with a post-test put into Medical Stream. As previously mentioned, every employee participates in annual online compliance training. Training is often presented as online PowerPoint presentations with online assessments following the training.

When asked if collaboration is built into the training, Jane responded:

No, those are more academic based learning systems. [Medical Stream] is more corporate based. It doesn't have chat boards. The closest thing I can think of would be the clinical arena when they do some type of training and then do something online to follow-up.

When asked about how content and design are selected for training purposes, Jane explained, "It's a team approach. There are certain things we know we need to do for regulatory training that is a given." Compliance officers attend conventions and make the decisions if annual training needs to be altered. Jane continued, "We also get with the clinical experts and decide what would be the best way."

As for design format, Jane pointed out that:

[Medical Stream] provides standardized courses that are already written that you can go in and annotate. For instance, fire safety. There are some things that are specific to our organization. We have the authoring program that allows us to go in, copy their program, and add our own pictures and information to it. It is very versatile.

Once a training session has been completed, Medical Stream will grade it and keep up with the scores. It then creates a transcript for each employee to track what sessions have been completed. Human Resources and Compliance keep a transcript of courses for each employee to ensure that employees are up-to-date with compliance training.

Implementation

WUH's e-learning program is created and implemented through their company's Education and Development area. While WUH relies mainly on Medical Stream to meet their

training needs, there are also live classes, especially in the clinical arena. Carla explained, “We attend classes for clinical issues because some things you have to have a class for. For example, CPR training wouldn’t be beneficial online.” In this situation, Jane notes:

We provide blending learning for those clinical people where they have to have some type of training at the worksite. We work closely with the managers to see if we need to put a post-test into [Medical Stream]. The managers will send the education department a roll sheet so that we know who to assign the online test that completes the skill competency.

There are also webinars, or web-based seminars, offered for training, but few employees participate due to lack of interest and it is not mandatory. Suzy pointed out, “we have webinars, but it is really more like a presentation. I never learn anything.”

Assessment

Each employee at WUH has a unique user id and password in order to access the Medical Stream system. The online training is evaluated individually. The majority of online learning assessments consist of a question and answer evaluation following the completion of an e-session. M.J. elaborated that “there is a multiple choice test that goes with each topic. The tests are spread periodically throughout the training.” Each person is required to make 80% to pass the evaluation. If someone does not achieve the required 80% on a test, they are allowed to continue taking it until they pass.

The participants from WUH had a good understanding of Medical Stream’s ability to track completed training sessions, as well as keep track of those pending completion. Jane explained, “Once training has been done online, you can track it. Medical Stream will grade it and keep up with it.” Human Resources and the Compliance department then keep a transcript of completed courses for each employee.

When I asked Jane how WUH tracked the connections between learning and employee performance, she replied:

That's always a challenge in education. We put a lot of evaluations on our authored programs and we also conduct a needs assessment every year on a different program. We ask employees each year and most people say they learn more from classroom learning, but e-learning has come a long way in terms of popularity.

Perceptions of Effectiveness

In general, all of the WUH participants believed e-learning to be a successful source for training. Jim said he was able to retain more information when e-learning was combined with “an interactive, e-session.” Carla noted, “It is nice because you can back up and reread information if you need to get refreshed.” Suzy liked it because if she didn't make a passing score, she can continue taking the test until she gets it correct.

Of the participants interviewed at WUH, there were mixed responses as to what training was perceived to be the least effective. Jim strongly felt that “stand alone PowerPoint presentations that only contained informational slides without video and audio” were extremely ineffective. Both M.J. and Carla found classroom training to be ineffective. M.J. felt that “it doesn't give you the multidimensional exposure that is helpful for learning. I need something where I can take notes and follow along.” Carla believed that classroom training was a “waste of time because people ask dumb questions.” Finally, Suzy responded with, “It really depends on the user. Younger people probably benefit more from online training, but it is difficult for me. There is an age barrier.”

Themes Presented by Research Questions

The major themes that came forward during the analysis of the qualitative data from WUH, which are relevant to the research question include: convenience, efficiency, training preference, lack of support systems in place, and recommendations to improve training at WUH.

Convenience

Each person interviewed from WUH agreed that e-learning is more convenient than attending a live class when it comes to training at such a large hospital. Jane explained that using e-learning is the most economical way to train as many employees as possible with as little disruption to the work environment as possible. Jim also conveyed it effectively as “it is an efficient, streamlined opportunity to complete initial training or offer continuing education, oftentimes at the full convenience of the participant.” M.J. pointed out, “I like being able to move at my own speed.” Carla followed up with, “classes tend to be drawn out and you have to wait for people that have questions. With e-learning, you can work at your own pace and re-read information if you don’t understand it.”

Efficiency

Although everyone interviewed at WUH agreed that e-learning is the most convenient way for training, not all agreed that it is the most efficient. While Jane, Jim, and Carla felt that it was just as efficient as attending a classroom, M.J. and Suzy felt otherwise. M.J. responded with, “It’s not necessarily more efficient. It’s only more convenient because you don’t have to take the time to attend a course.” Suzy felt that:

It really depends on the content. There are some things that need to be kept in a classroom. I really believe there is an age barrier. Younger people might learn easier using online training, but I need to be taught in the traditional setting.

Training Preference

Of all five employees interviewed at WUH, four stated they preferred online training versus attending a classroom for various reasons associated with saving time. M.J. felt strongly about this issue by stating, “Because our clinic is so busy, it hurts us if an employee has to leave

to attend a training class. We need everyone possible at work to make sure the clinic flows smoothly.” Carla reasoned, “I like e-learning because I am able to work at my own pace instead of spending half a day in classroom.” Jim echoed by saying, “I would prefer to read as much as possible online so I can work at a faster pace.” Suzy was the only participant that preferred to attend a classroom learning environment. She said, “Personally, if I am going to learn some type of new application, I need someone to show me what to do. I cannot just read a presentation and know what to do.”

Lack of Support Systems

An interesting and predominant theme was that employees were uncertain as to who to contact if they had questions or if something wasn't working correctly with their online training. Carla replied, “I'm not sure who I would ask. If I had questions about something, I guess I would try to figure it out.” Suzy elaborated a little more and said:

I feel like there needs to be a training representative that you could go to with questions. It's obscure as it is. When I have requested help in the past, I have been sent to several people and it is not real clear who does what. There are multitudes of training departments. That is pretty much the case about anything at [WUH], but trying to find the right place is a nightmare.

M.J. said he would contact the training department, and Jim said he would contact the IT department. When I asked if and how the participants were prepared to participate in online training, only one person had a clear cut answer. Suzy explained, “They pretty much just told us one day we would be doing it and provided us with a sign-on and password. It was pretty self-explanatory, but no one taught us how to do it.”

Recommendations

Each participant from WUH had recommendations to improve training. Jim suggested WUH needed to allow “24/7 multiple access to sessions with the ability to choose the career track curriculum tailored to the employee’s current or preferred work setting.” M.J. simply requested there be more training courses provided online. Carla indicated:

I would like to have someone with a clinical background to design specific courses relevant to their expertise. Sometimes it is clear that the training is developed by someone that is not competent in certain areas of the training.

Finally, Suzy desired to have more options for learning. She elaborated by saying, “the design is boring. Information needs to be presented in a variety of ways. When you take the teacher construct and put it into video, you are losing so much.”

Case Two: Weston Regional Hospital

Weston Regional Hospital (WRH) has been in business for over 65 years. It first opened as a small medical clinic. Today, it is one of the newest hospitals in a southeastern state, with a medical staff that represents nearly every specialty in medicine. The hospital is part of an extensive medical complex that was built in 1995 that contains some of the newest medical equipment and technology available in the world today. WRH is a 115-bed medical center that employs more than 100 doctors and a team of nearly 1,000 nurses, technicians, and other support staff. According to the hospital’s website, their Mission Statement is as follows:

We are dedicated to promoting wellness by providing excellent healthcare services in the most efficient manner and exceeding the expectations of those we serve. Our vision is to aspire to be the leading community based healthcare provider in the Southeast.

WRH provides training to all employees using a variety of different sources including: instructor-driven classes, webinars, and e-learning modules. The e-learning is outsourced to

WebLearning by WRH. The study participants from this hospital included: Vicki, Marcia, Ginger, Matt, and Erika (pseudonyms). Vicki is the Education manager for the hospital and Marcia, Ginger, Matt, and Erika each work in different departments throughout the hospital and all participate in e-learning for training purposes. Marcia is the Ancillary Education Coordinator, Ginger is the Emergency Department Educator, Matt is an Administrative Assistant, and Erika is the Manager of the Post-Surgical Unit.

WRH's Learning Management System

WebLearning is an e-learning software provider that is a part of Engaging Learning, Inc. This company has been developing products for the healthcare industry since 1995. The WebLearning Management System is the LMS used by Weston Regional Hospital. WebLearning is a computer-based learning (CBL) management system that can be delivered via the internet or through the facility's Intranet. WRH uses it to meet training requirements for the Joint Commission and the Health Insurance Portability and Accountability Act (HIPAA), understanding compliance reporting for Occupational Safety and Health Administration (OSHA), tracking and recording competencies, and developing skills through continuing education courses.

According to WebLearning Internal Studies (2006-2007), the benefits of WebLearning include:

- 94% of users see an increase in compliance.
- Users save up to 93% of the costs of traditional training
- Instructors save up to 30 hours per week
- Managers save up to 15 hours per week

WebLearning allows managers to generate reports, add or edit their staff's participation in CBLs, see who has completed classes or CBLs, and review staff transcripts. The participants are able to enroll in classes, view completed and upcoming courses, take tests, and review and print their personal transcript. Pre-made CBLs are available for purchase from WebLearning, but WRH prefers to design their own that are specific to their work environment. The design is virtually self-explanatory, and offers an intuitive interface.

E-learning Design

WebLearning maintains WRH online training program, which they call CBLs (Computer Based Learning). Each department in the organization develops their own CBLs. The CBLs are designed in PowerPoint format and then uploaded to WebLearning for access to all employees.

Vicki, the Education Manager of the hospital, carefully explained:

Each employee participates in annual compliance and competency training. This information is always reviewed and up to date. Every employee has a 'to-do' list assigned to them, depending on their department and what their job title is. If we find something that needs reinforcement or something new, such as equipment, policy, or procedure, we create and upload a new CBL to [WebLearning]. We also do something called 'the Connection.' Employees know to go check this online once a month to see if there is any new training or updates available.

Every department in the hospital is involved in the design process. The training content comes from the expert in that particular area. Vicki notes, "It [online training] needs to be to the point and only include what is important." Erika expands on this by explaining, "The online CBLs are basically bullet points – short and sweet – followed by questions to make sure you got the information." When asked if collaboration is built into the training, Vicki responded, "There is no collaboration planned into the training, but employees are encouraged to discuss it at any time."

Implementation

The majority of Weston Regional Hospital's training is asynchronous so that employees can complete their training on their own time schedule, but are still on the clock during the workday. However, Ginger notes, "to provide for different learning styles, there are also live classes for some topics. We do on the Unit training at least once a month." Marcia further explained, "When we have classes associated with contact hours, a nurse can simply swipe their ID and the contact hours are uploaded to the Board and it is put on their transcript." There are also some webinars scheduled for things such as new products in the hospital. Erika pointed out, "there is not really good participation in these. In my opinion, webinars should only be supplemental training because they are not as beneficial."

Employees were taught in a classroom how to use the online training. The education department used storyboards to train employees and noted, "It was very time intensive." Each employee felt very confident and comfortable participating in online training. When asked who they would contact if there was a question or problem, all agreed they would call the IT department if something was wrong with the program. If there was a question about the training, all employees agreed they would ask the Education Department for clarity. Ginger expressed, "if I had a question about something, I would ask my supervisor to explain it to me." Vicki, the Education Manager, further explained:

If someone has a question about the training, they can call the Education Department. If we didn't put the CBL out, we will find the appropriate resource to answer the question. In addition, we always include the source references on each presentation.

Assessment

The online training at WRH is evaluated individually for each employee. Marcia points out, "there is usually a post test at the end of each CBL." The post-tests are multiple choice

questions and participants can take the test as many times as they want. Matt pointed out, “we are not required to read the material. However, if we miss a question, we are required to reread and retake the test.” WRH requires each employee to make 100 percent in order to prove they know the material. Vicki stated, “The reason we make employees make 100 percent to pass the test is because we want to ensure that everyone is reading the material.” Completed and pending courses are kept up with in transcript form. Ginger elaborated that “we can each go into [WebLearning] and print out a transcript of what training we have participated in. Our transcript is attached to our yearly evaluations.”

Perception of Effectiveness

The overall perception of e-learning at WRH was that e-learning is effective, but there are also some drawbacks. Vicki pointed out, “e-learning is effective, but participants are not able to ask questions like in a live training meeting.” Ginger felt it was especially effective for training on topics that are taught every year. She continued, “If you have been in healthcare for any length of time, some things can get very repetitive. This is where e-learning comes in handy because a refresher is much quicker than attending a class.” As far as the least effective method of training, all agreed that webinars should only be supplemental sources for training because they are not as beneficial.

Themes Presented by Research Questions

The major themes that came forward during the analysis of the qualitative data from WRH, which are relevant to the research question include: convenience, efficiency, training preference, and concerns with the assessment process of e-learning.

Convenience

Each participant from WRH agreed that online learning is a convenient source for training. Vicki stated, “The strategic reason for using it is to save time. We try to make training short so that employees can do it when it is convenient for them.” Marcia suggested “It’s a more convenient way to reach all employees. It takes much less time than training each employee in a classroom setting.” Matt and Ginger concurred that it’s a convenient way to train a multitude of people and make sure the message is consistent throughout the organization. Finally, Erika pointed out:

It is the most convenient way to train employees with alternating schedules, especially those that work the night shift. With e-learning, you don’t run into people missing scheduled meetings. Because we are provided time to complete training on the clock, there is no excuse for not completing the training.

Efficiency

At some point in every interview at WRH, each employee expressed that there is still a place for both online learning and face to face learning. Vicki pointed out that “although I think online training is a good piece of the whole picture, I don’t think it would be enough by itself.” Ginger echoed Vicki’s sentiments almost verbatim. When asking for recommendations to improve the future success of online training at WRH, Matt and Erika requested more opportunities for blended learning. Vicki stated she would like to learn about more opportunities for e-learning that provided collaboration among the participants. One idea she had was to “find simulations that would be beneficial for training and possibly a virtual skills lab that would be available at all times. The nurses could then print out the information to use on the job.” This would allow for more blended learning opportunities yet make employees feel more confident and prepared for using those skills.

Training Preference

A prominent theme throughout the interview process was that although employees found e-learning to be the most convenient source of training, all participants felt that classroom learning was more beneficial. The reasons for this varied. Marcia expressed “E-learning is definitely easier to train the entire staff, but personally, I prefer attending a class because you are able to ask questions. It’s like texting; you lose the human side of it with online training.” Matt also recognized the advantages of e-learning, but said, “I learn better by using hands-on learning and by being able to hear the information being presented.” Ginger pointed out, “As healthcare employees, everything we do is hands-on. Online training takes away from the touch component that is ingrained in us for nursing.” Finally, Erika reasoned:

I would prefer to attend a classroom, but there is a place for online training. If it is just something I need to be refreshed on, the bullet points are sufficient. However, if it’s a medical procedure or something new, it is much more beneficial to attend a class.

The employees at WRH also agreed that webinars were their least favorite form of online training due to their monotonous and time consuming nature. Erika summed up the majority vote by saying, “Webinars should only be supplemental sources for training because they are not as beneficial.”

In summary, the interviewees agreed that online training is good for repetitive, yearly training because it is more time efficient. However, attending a class is the most preferred training source for hands-on practice and new issues.

Concerns with Assessment

Another common theme derived from the interviews at WRH was difficulties, or concerns, with the measurement process. According to Vicki, “one difficulty with the

measurement process is that people can pass the test the first time, but then still have questions about something.” Each employee is responsible for the information learned in training, but Marcia felt the problem with online learning is that “employees can skip ahead or collaborate with their peers to get the correct answers. Just because you can answer questions on a test doesn’t mean you can critically think through it and perform the task.” Matt’s biggest concern was “sometimes we are trained on something but don’t see a case like that for six months. You can only hope that you will feel prepared when the time comes.” For this reason, all agreed that their current online assessments were only a partial measurement of ability.

Case Three: Adam Medical Center

Adam Medical Center (AMC) is a large healthcare organization that serves thousands of patients yearly in over 600 locations. It is an outpatient facility with offices in more than 30 states. According to Adam Medical Center’s website, their mission is to:

- Maximize patient satisfaction through interaction with our employees, clinical outcomes and the overall therapy experience.
- Promote an environment where all employees are valued team members and employees can develop and excel beyond their expectations.
- Build relationships in our communities based on the highest levels of clinical care and performance.
- Commit to local market clinical leadership and share accountability to drive our mission.
- Operate within the highest standards of regulatory compliance and integrity not only to meet the requirements of our professions, but because each are foundations of our culture.
- Be leaders and innovators in evidence-based practice in our services.

For this particular case, the researcher interviewed Audie, the Vice President of Training and Development, as well as four additional people that participate in online training employed by AMC. These participants worked in various departments and included: Thomas, Caron, Laney, and Nicholas (pseudonyms). Thomas and Caron are Physical Therapists, Laney is the Administrative Operations Manager, and Nicholas is a Patient Service Manager.

AMC utilizes New Generation as their learning management system for e-learning. According to Audie, “because [AMC] is so large and has offices spread across the United States, e-learning helps to reduce training costs. It also helps us to send a consistent message throughout the entire company.”

AMC’s Learning Management System

New Generation Learning Systems, LLC operates as a subsidiary of a larger company. According to their website, New Generation has been “a pioneer in e-learning” since founded in 1996. It provides flexibility with a suite of e-learning offerings that can either be hosted or installed. AMC has the software installed and housed in its own data center, which is called the Information Zone.

New Generation Learning Systems, LLC develops e-learning infrastructure software to create, capture, store, deliver, and evaluate learning in the corporation. The director of Training and Development at Adam Medical Center stated that the “availability of e-learning design templates are very helpful in providing effective, easy to follow sessions.” Each session is customized based on employee need and the evaluation is built into the design. For example, employees are unable to advance to the next slide of information until they meet the requirements. New Generation then allows managers to run reports of each employer’s training scores and completed sessions.

E-learning Design

Adam Medical Center provides individualized online training for all employees. New employees participate in new hire orientation that covers policies, procedures, handbook, and the code of conduct within thirty days of being hired. Everyone in the company participates in compliance training once a year. Employees are sent e-mail reminders from a compliance officer when it is time for a new training. Although AMC's Training and Organizational Development department is currently working to revamp their whole training program, New Generation currently houses all of the compliance training. Employees can find New Generation on the company's intranet site called "Information Zone."

Employees are each assigned their own member login and password to access the online training. Content and design are selected dependent upon the purpose of the training and what type of employee classification the training is for. Once an employee signs into the training, the associate must choose if they are a clinical or non-clinical employee. Audie explains, "The screen is then streamlined to the training so that the information is exactly what applies to that type of employee." When asked how collaboration is built into the training, Audie replied, "It's not at this time."

Implementation

AMC's online training is created and implemented through the department of Training and Organizational Development. In addition to training on New Generation, there are occasionally webinars and live classes to attend. The webinars are scheduled during work hours and only few are required. Participants are able to unmute their phones during webinars if they need to ask a question. Laney describes the online training on New Generation as "basically a PowerPoint that gives you information in bullet point format. The training is broken into

subjects.” The training is relatively short in length. Nicholas points out, “sometimes a training course is only five slides of information and three questions.” Once an employee has completed an e-learning session, they are able to go back and review all of the training modules, or specify a particular section for review.

Assessment

Evaluation is built into the training system and each person is evaluated individually. Employees are given competency tests within the training and post tests at the end of training. Questions can consist of scenario type questions, true/false, and multiple choice questions. Caron pointed out, “there is nothing that measures the amount of time you spend on a certain section, so you can really go directly to the test.” Employees are only required to make a score of 80 percent in order to pass the tests. If they fail to do so, they are able to retake the test as many times as desired until they obtain a passing score.

After training is completed, employees are able to sign into New Generation and see what they have registered for and completed. The courses are listed in transcript form and can be printed for filing purposes. Nicholas explains the process:

When I finish training, the first thing I do is print out a certificate and file it at my office. It’s the clinic director’s responsibility to make sure all employees have completed their training on time. However, it is monitored by compliance officers and if you do not get the training completed, your pay is held until you complete it.

Perception of Effectiveness

The perception of e-learning varies for AMC employees. Audie stated, “I consider e-learning as a source for disseminating information that one needs to hear. However, I believe that training should be interactive.” Thomas said, “It really depends on the content. Everyone learns at a different rate so [New Generation] is ideal for quick training so you don’t have to wait on someone else.”

The participants from AMC found webinars to be the least effective source for training. Laney explained, “The teacher is so monotone. The webinars are not assessed. They are really more informational.” Caron asserted, “Webinars aren’t beneficial for me because they are during the day. I can never sit through one without being interrupted and then you miss half of the information.”

When asked how AMC measures the outcomes of change in the learners’ knowledge, skills, or attitudes, Audie replied:

I have not personally seen an increase in retention rates, but I have not been in my position long enough to correlate changes in attitude and skills to the implementation process. There are other aspects to look at though, for instance, employee turnover. We can see the numbers of people that leave the company and try to find out why. We can then address the issues associated with the training department.

Themes Presented by Research Questions

The major themes that came forward during the analysis of the qualitative data from AMC, which are relevant to this study include: convenience, efficiency, lack of support systems in place, and recommendations to improve training design at AMC.

Convenience

Each participant from AMC agreed that online training was more convenient than attending a classroom setting. The reasons for this varied. Audie argued:

We tried to make training as easy as possible for employees to gather the knowledge needed to do their job and stay up to date on compliance issues. Because our company is spread across the country, e-learning helps us send a consistent message throughout the organization at the convenience of the employee.

Caron echoed Audie by saying, “It’s an easy way to make sure that all employees are accessing and reading the same information. It provides documentation that we did complete the training.”

Thomas and Nicholas both felt that e-learning is the most cost effective way to train all

employees at their own convenience. Nicholas said, “It’s a huge company and it would be expensive to pay for travel costs to get everyone to one place. It’s just more cost effective for the company.” Finally, Laney believed it to be more convenient because “people are able to learn at their own pace when it is convenient for them.”

Efficiency

Although everyone interviewed at AMC agreed that e-learning is the most efficient way for training, not all agreed that it is the most effective. Laney explained:

E-learning is the most efficient way for information dissemination, but not always more effective. It is not more efficient if there is a small number of individuals that require training at one location. A teacher-led training can be more efficient for those at a single location to get hands-on experience.

Caron felt that it is not as effective because “you can go back through the training to find the correct answers for the test. It is not really monitored and you can take the test over and over.”

Finally, Nicholas conveyed:

I like e-learning, but I really don’t think it measures anything except your ability to use a computer. I think it’s convenient, but you don’t get the feedback you would in a classroom. I need to be able to ask questions and follow along with a print out.

Lack of Support Systems

When asked if participants felt adequately prepared to maneuver the online training, the consensus was “No!” Thomas explained, “We have to first sign into Information Zone, which is like a black hole. There is so much information on this site that it is hard to even find [New Generation].” Laney echoed with, “Every single policy and procedure that exists is found there. It is so frustrating trying to find what you need on there.” Finally, Nicholas added, “I understand what to do once I get into the program. It’s the Information Zone that is so confusing.”

Another issue under the same umbrella is the lack of support systems available for e-learning students. Audie notes, “right now, there is one individual for the entire organization. It’s not really his job, but he just helps on the side.” AMC’s official IT department is located in India. Employees are able to log a request if there is a problem and IT will contact them when available. Caron explained:

Our IT department is located in India so you really have to pick your battles. When I have a problem, I usually just sign out and try to come back to it later. If not, it gets frustrating waiting on IT to call back.”

Recommendations for Training Design

An evident theme throughout the study of AMC is difficulties with the training program design. When participants were asked “what recommendations would you make to improve the future success of e-learning in your company?”, every answer pointed to changes in design.

Nicholas and Laney felt there should be more interactivity built into training. Laney advised, “The training in [New Generation] is repetitive and there is no interaction built into the training.”

Nicholas agreed that:

Unless training is designed as a webinar, which there aren’t many, there is little interactivity built into the training and it kind of takes away from the learning component. Also, unless you ask someone, there is really no way to get a clear cut answer during training.

Caron felt that training would be much more beneficial if employees were able to access training after hours. She stated:

When training is scheduled during the day, someone can walk into the clinic or the phone rings and you end up missing 5 minutes of what was said during training or a webinar. They are scheduled during patient hours so you have to coordinate a time when you can be free. It is too easy to be distracted by other things going on in the clinic.

Thomas suggested the e-learning process would be more beneficial if the training program had a monitoring system. He suggested:

If the training was monitored and you had difficulty with a specific section of the test, I wish they would tell you what section you need to review. Also, it would be nice if someone in the compliance office could get a report and see what people were having difficulty with and follow-up with another training.

Finally, Audie argued:

People tend to use online training as a “cure all” for all training, but they may not be equipped to design the training tools. One must ask, am I trying to conduct training, or am I trying to disseminate knowledge? Is online training really the best way to do so?

CHAPTER V: CROSS-CASE ANALYSIS

In the following sections, the findings of the three case studies are presented. The methodological issues associated with the case study research were discussed in Chapter III. During the case study research, a set of structured, in-depth interviews were conducted at three different companies which included: Whitney University Hospital, Weston Regional Hospital, and Adam Medical Center.

The analysis of the qualitative case study data took place in two major steps. First, a within-case analysis was conducted, in which each case was analyzed in depth. Second, a cross-case analysis was conducted, in which the different cases were compared. In this way, similarities and differences were elaborated upon and themes were derived.

E-learning Design

All three healthcare facilities in the study utilize learning management systems to deliver online training to employees. Although each organization outsources to different LMS providers, the goal is ultimately the same for all. Each company uses LMSs in the hopes of not only monitoring the effectiveness of the organization's education and training program, but also to ensure the delivery of state- and federal-mandated courses in a timely manner.

Both AMC and WRH develop their own training programs internally and then upload them to their LMS providers. The AMC Training and Organizational Development department designs training based on employee classification, such as clinical or non-clinical employees. On the other hand, WRH incorporates every department in the hospital in the design process. Each department develops their own CBLs and they are then uploaded to WebLearning for

access. Vicki, the education director from WRH explains, “We make sure the training content comes from the expert in that particular field for training.”

In contrast, [WUH] relies on [Medical Stream’s] standardized courses that are already developed for training. Jane, the Manager of Education from WUH clarifies:

We have the authoring program that allows us to go in, copy their program, and add our own pictures and information to it. Our compliance officers attend conventions and then we decide if the annual training needs to be altered.

Jim explained, “Our training is a continual work in progress, but availability of e-learning design templates are very helpful in providing effective, easy to follow sessions.”

Implementation

The cross-case analysis found that all three companies provide multiple modes of training for their employees. In addition, each participant in the study participates in annual online compliance training using their company’s LMS. Although all three companies are familiar with different types of training, each organization employs asynchronous training for e-learning purposes. All admitted that collaboration is not built into the training programs at this time. However, Vicki, the Education Director from Weston Regional Hospital stated that “employees are encouraged to discuss it at any time.”

In each LMS program, employees are given a unique member login and password to access the training. Audie, the Vice President of Training and Development from AMC explains, “Once an employee chooses their classification – clinical or non-clinical, the screen is then streamlined to the training so that the information is exactly what applies to that type of employee.” Vicki explains that WRH is similar in that “every employee has a ‘to-do’ list assigned to them depending on their department and what their job title is.” The employees are sent a release via e-mail saying, “This [training] has been assigned to you.” In the same way,

WUH communicates the required training to employees via email based on employee classification. WUH then utilizes the standardized courses provided by Medical Stream for training.

While all three companies assert that employees can perform training on the clock, this did not always prove to be the case. Caron from AMC noted, “It is almost impossible to complete online training during the work day. If it is scheduled during patient hours, you have to coordinate a time to be free.” The employees from WUH were able to perform training on the clock, but oftentimes had to complete small sections at a time. Jim noted, “It’s nice because the e-learning session allows you to partially complete a session, save the work completed, and pick-up at a later time when it is convenient to you.” In contrast, Vicki from WRH explained, “employees are given time during the day to complete their CBLs.” Marcia verified this by saying, “there is no excuse for not getting trained because we are provided with time to do the training during work hours.”

Assessment

Each company evaluates their employees individually using their LMS. The cross-case analysis found that all three healthcare organizations provide online learning assessments at the end of each e-learning session. WUH and WRH assessments simply consist of a multiple choice question and answer evaluation. AMC assessments may consist of scenario type questions, true/false questions, as well as multiple choice questions. In order to pass the evaluation, both WUH and AMC require that employees achieve 80% accuracy. In contrast, WRH requires each employee to make 100% on the assessments. Vicki stated, “The reason we make employees make 100 percent to pass the test is because we want to ensure that everyone is reading the

material.” Regardless, all three organizations allow employees to retake the tests as many times as necessary to obtain a passing score.

Upon completion of individual training and evaluation, it was revealed that all three organizations utilize their LMS to track completed and pending courses for each employee in transcript form. Employees at each company are able to sign into their specific LMS to access their personal transcript. The Compliance Office and Department of Human Resources monitors training in all three organizations. WRH attaches these transcripts to employees’ yearly evaluations. The employees at AMC print their transcripts for filing purposes at their place of employment. As Laney noted, “It [training] is just something I have to do. If I don’t, I don’t get paid.” The participants at WUH had to do nothing with their transcripts. They were simply used by HR and Compliance as documentation of completed training.

When the training managers and directors were asked how the connections between learning and employee performance are tracked, it became evident that the each organization relied solely on the LMSs for this purpose. First, Jane from WUH replied “That’s always a challenge in education. We put a lot of evaluations on our authored programs and we also conduct a needs assessment every year on a different program.” She also noted, “[Medical Stream] grades the training and keeps up with it. We can view the scores and decide if training needs to be tweaked.” Audie from AMC replied, “In [LMS], we are able to run reports all the time.” He later admitted, “I have not personally seen an increase in retention rates, but I have not been in my position long enough to correlate changes in attitude and skills to the implementation process.” Finally, Vicki, the Education Director from WRH answered, “online research shows retention rates are higher with online learning. However, if we see that

employees are having difficulty passing a particular CBL on [WebLearning], we will follow up with another training.”

Perceptions of Effectiveness

The predominant perception of e-learning effectiveness at all three healthcare organizations was that e-learning is effective, but there are also drawbacks. Audie from AMC conveyed the underlying reason most effectively as, “I consider e-learning as a source for disseminating information that one needs to hear. However, I believe that training should be interactive.” Ginger from WRH also noted, “I think it’s a convenient way to train a multitude of people and make sure the message is consistent. I also think it’s important to make sure it is not the only source for training.”

Another important reason participants found online training effective is the convenience it provided employees to complete training. Thomas from AMC said, “Everyone learns at a different rate so [New Generation] is ideal for quick training so you don’t have to wait on someone else.” Carla from WUH stated, “It is nice because you can back up and reread information if you need to get refreshed.” Ginger from WRH felt it was especially effective for training on topics that are taught every year. She continued, “If you have been in healthcare for any length of time, some things can get very repetitive. This is where e-learning comes in handy because a refresher is much quicker than attending a class.”

Of the participants interviewed at the three organizations, there were mixed responses as to what training was perceived to be the least effective. Some felt that stand alone PowerPoint presentations were ineffective, while others felt that classroom training was the least effective. Marcia from WRH argued, “e-learning is effective, but participants are not able to ask questions like in a live training meeting.” However, the overwhelming response in all three companies

was the use of webinars for training. The participants from WUH and AMC disliked webinars because of their monotonous and time consuming nature. Laney explained, “The teacher is so monotone. The webinars are not even assessed when we participate.” Erika from WRH simply felt that “webinars should only be supplemental sources for training because they are not as beneficial.”

Section I: Themes Presented by Research Questions

The major themes that came forward during the cross-case analysis of the qualitative data from all three companies included: convenience, efficiency versus effectiveness, training support, and recommendations for the training design in the future of online training in each company.

Convenience

A cross-case analysis revealed that each person interviewed agreed that e-learning is more convenient than attending a live class. The reasons for this varied, but were similar across all three organizations. The predominant reason at all three organizations was that e-learning is a cost effective way to provide training to employees at a time that is most convenient for them. E-learning gives employees the freedom to move through the training at their own pace and review information that needs additional attention.

Another important reason associated with the convenience of e-learning is that it is a way to train as many employees as possible with as little disruption to the work environment as possible. Erika from WRH pointed out:

It is the most convenient way to train employees with alternating schedules, especially those that work the night shift. With e-learning, you don't run into people missing scheduled meetings. Because we are provided time to complete training on the clock, there is no excuse for not completing the training.

Finally, by using an LMS for e-learning, the directors and managers of education at large organizations are able to send a consistent message and ensure that everyone is reading and accessing the same information. It also provides documentation that each employee has access to the training needed to do their job successfully, as well as stay up-to-date on mandatory compliance issues.

Efficiency Versus Effectiveness

Another prevalent theme discovered in the cross-case analysis is that while most participants agree e-learning is the most efficient way to train, not all agree that it is the most effective. Also, while some agree it is more convenient, others believe it is not the most efficient. As M.J. from WUH put it, “It’s not necessarily more efficient. It’s only more convenient because you don’t have to take the time to attend a course.”

There are still a number of employees that prefer a classroom environment due to the nature of the job in the medical field. Ginger pointed out, “As healthcare employees, everything we do is hands-on. Online training takes away from the touch component that is ingrained in us for nursing.”

Nicholas from AMC strongly felt, “I like e-learning, but I really don’t think it measures anything except your ability to use a computer. I think it’s convenient, but you don’t get the feedback you would in a classroom.” Marcia from WRH agreed and felt that classroom training is more beneficial because participants can ask questions. She said, “It’s like texting, you lose the human side of it with online training.”

Finally, Laney from AMC explained:

E-learning is the most efficient way for information dissemination, but not always more effective. It is not more efficient if there are a small number of individuals that require training at one location. However, a teacher-led training can be more efficient for those at a single location to get hands-on experience.

In summary, the overall consensus from each company was that e-learning is an efficient way to train, but not necessarily the most effective. The interviewees agreed that online training is good for repetitive, yearly training because it is more time efficient. However, attending a class is the most preferred training source for hands-on practice and new issues. There is still room for both online learning and face to face learning in corporate education. Vicki put it best as, “although I think online training is a good piece of the whole picture, I don’t think it would be enough by itself.”

Training Support

An interesting, yet predominant theme common to WUH and AMC was the lack of support systems available. When asked how the employees were prepared for training, the participants from both WUH and AMC felt they had not received any training. Suzy from WUH stated, “They pretty much just told us we would be doing it one day and provided us with a sign-on and user password. There was no training.” Nicholas, from AMC stated, “We weren’t trained. I received an email one day with my sign-in and password. That was it.” On the other hand, WRH taught employees how to utilize the online training in a classroom environment. The education department used storyboards to train and noted, “It was very time intensive.” Thus, each employee from WRH felt very confident and comfortable participating in online training.

This theme was also prevalent when asked who they would contact if there was a question or problem. The employees at WUH were not sure who to contact if there was an issue with the training. Carla replied, “I’m not sure who I would ask. If I had questions about something, I guess I would try to figure it out.” Suzy followed up with identifying a need for a training representative to answer questions. Employees from AMC were also confused as to

what would be the proper way to handle questions or problems with the online training. In fact, Laney said, “I’d just sign out and try again later.” Because AMC’s official IT department is located in India, Caron explained, “you have to pick your battles....it gets frustrating waiting on IT to call back.”

In contrast, the employees at WRH felt confident in contacting the IT department if something was wrong with the program. If there was a question about the training, all employees agreed they would ask the Education Department for clarity. Ginger expressed, “if I had a question about something, I would ask my supervisor to explain it to me.” Vicki, the Education Manager, further explained, “If someone has a question about the training, they can call the Education Department. If we didn’t put the CBL out, we will find the appropriate resource to answer the question.”

Recommendations for Training Design

When participants were asked “what recommendations would you make to improve the future success of e-learning in your company?”, every answer from employees pointed to changes in the training design. Some thought there should be more interactivity and collaboration built into the training. The participants from WUH and WRH desired to have more opportunities and options for e-learning. Suzy from WUH explained, “The design is boring. Information needs to be presented in a variety of ways.” Matt and Erika from WRH specifically requested more opportunities for blended learning. Vicki from WRH suggested implementing “simulations that would be beneficial for training and possibly a virtual skills lab that would be available at all times. The nurses could then print out the information to use on the job.” This would allow for more blended learning opportunities yet make employees feel more confident and prepared for using those skills.

Thomas from AMC felt that a monitoring system would make the training more beneficial. He felt that having a monitoring system could identify difficult sections of the e-learning sessions and allow employees to review these or participate in an additional training.

As previously mentioned, the within-case analysis revealed that every department at WRH participates in the design process and training comes from the expert in that particular area. By doing so, employees felt more comfortable and confident with the information they received. In contrast, WUH and AMC develop training in their Training and Education departments and generally rely on the standardized training sessions provided by their LMS. This proved to be a less effective way to train. Carla from WUH indicated:

I would like to have someone with a clinical background to design specific courses relevant to their expertise. Sometimes it is clear that the training is developed by someone that is not competent in certain areas of the training.

Section II: Applying Holton's Model

According to Broad (2005), training transfer is the effective and continuing application by trainees of the knowledge and skills gained in training to the workplace. Holton (1996) provided a conceptual evaluation model of training that focuses on individual performance. As discussed in detail in Chapter II, the three primary outcomes of training proposed by this model include: learning, individual performance, and organizational results (Holton, 1996). This model suggests the three "crucial" factors that affect transfer of training include: motivation to transfer, transfer design, and transfer climate (Holton, 1996). Holton's model provided a means for the researcher to observe the transfer of training through e-learning and how it is applied to the work setting.

According to Holton (1996), motivation to transfer is defined as the learner's desire to utilize skills and knowledge learned in training to a real world work situation (Noe, 1986).

Transfer climate is described as a “sense of imperative” that arises from a person’s perception of his or her work environment and its influences on the extent to which that person can use learned skills on the job (Yamnil & McLean, 2001). Finally, training design can be summarized as the characteristics of the learning environment, such as the materials, opportunities to practice, providing feedback, and learning objectives.

Motivation to Transfer

Motivation to transfer is defined as the learner’s desire to utilize skills and knowledge learned in training to a real world work situation (Noe, 1986). This was hypothesized in Holton’s (1996) model to connect learning with individual performance change (Yamnil & McLean, 2001). In addition, the expectancies concerning the utility of training should affect organizational results. Training motivation is similar to motivation to transfer because it is a measure of the trainees’ perception of the relationship between training success and future job performance (Holton, 1996).

The cross-case analysis illustrated that participants at all three healthcare organizations desired to use their knowledge and skills learned through e-learning. The individuals perceived what they were taught in online training as relevant to what they needed to know to perform their jobs successfully. While all three companies recognized the importance of the mandatory online training, the employees from WRH appeared to be more motivated to enhance their performance. Interestingly, they were so motivated to transfer learning to performance, they raised concerns with the assessment process of e-learning. As Marcia put it, “just because you can answer questions on a test doesn’t mean you can critically think through it and perform the task.” Matt further explained, “I just want to do the best I can do and online assessments are only a partial

measurement of ability.” This increased desire to perform justifies why the employees at WRH were more comfortable and confident with what they learned in the online training.

Transfer Design

Transfer design refers to the degree to which training has been designed and delivered in such a way that provides trainees the ability to transfer learning back to the job (Holton et al., 2000). Training design includes purposeful elements that are part of the training program to enhance the possibility of transfer. According to Holton (1996), one cause of failure to transfer is that training design rarely provides for transfer of learning. This proved to be true in this case study.

All three healthcare companies in the study rely on their learning management systems to deliver online training to employees. Each company utilized LMSs in the hopes of integrating, organizing, and standardizing learning across their organization. While all three systems boast the ability to offer multiple modes of learning – webinars, online classes, CD-ROM, video content, live instruction, online forums and chats, etc. – the cross-case analysis revealed the majority of training was being implemented through simple PowerPoint presentations that have been uploaded to the company’s LMS. The problem with this is that program designers need to pay attention to the suitability of the program to fit the needs and interests of each employee as related to their jobs.

As previously mentioned, a common theme during the interview process was that almost every participant in the study desired more opportunities for learning with interaction and collaboration built into the training. Providing other opportunities for learning that allow trainees to practice their training in the workplace will make them more likely to transfer newly acquired skills and behaviors to the job. Therefore, a key aspect of training design is to ensure

the training program directly addresses individual and organizational problems. When the program fails to do so, training transfer will be weak.

Transfer Climate

Transfer climate has been defined as those situations and consequences in organizations that either inhibit or facilitate the use of what has been learned in training back to the job (Burke & Hutchins, 2007). Therefore, it is basically the conditions in the work environment that support training transfer. “Features of a positive transfer climate have been identified as cues that prompt trainees to use new skills, consequences for correct use of skills and remediation for not using skills, and social support from peers and supervisors” (Burke & Hutchins, 2007, p. 280). According to Kozlowski and Salas (1997), organizational theory asserts that trained knowledge, skills, and attitudes at the individual level are embedded in unit level technology, coordination processes, and social system contexts with broader contextual constraints starting at higher system levels.

The findings of this study were consistent with research conducted by Holton (1996) on the transfer of training model, which includes “transfer climate.” The cross-case analysis revealed that the transfer climate created in each company affected the trainees’ ability and motivation to transfer training to the job. Even though all three companies aim to foster a positive transfer climate, it became clear that WRH did so more than WUH and AMC. One reason for this is the initial training provided to employees in order to utilize e-learning in their LMS program. The participants from WUH and AMC received no formal training during the initial start-up phase of e-learning implementation in their companies. The employees were simply given a sign-on and user password in the context of an email. On the other hand, WRH

taught each employee how to utilize the online training system in a classroom environment.

Because of this, the employees from WRH felt more prepared and more motivated to transfer.

As previously mentioned, another reason for having a more positive transfer climate at WRH is that every department from this organization is included in the design process.

Therefore, the training comes directly from the expert in that particular area. By doing so, employees feel more confident with the information received and it creates an environment of inclusive learning. Everyone has a role to play in contributing to the training. In contrast, WUH and AMC develop training in their Training and Education departments and generally rely on the standardized training sessions provided by their LMS. The participants from WUH and AMC did not play a role in designing the training, therefore, there was no “sense of imperative” for training and the transfer climate was weaker.

In conclusion, the organizations can ensure a more positive transfer climate by supporting a collaborative learning community among employees. When all individuals feel they are contributing to the learning process, learning becomes more personal. In turn, they are more apt to return this new knowledge to the work environment in their organization.

Training Outcomes

After studying the company websites, their LMS providers, and conducting interviews, the researcher better understood the online training process at the corporate level. The data from the three cases revealed that e-learning is perceived to be effective for training at the corporate level, but there is still much room for improvement. The overall consensus from employees at each company was that individual performance could be improved with a more effective transfer design that included multiple modes of training. In turn, this would lead to better results at the organizational level.

In order to increase organizational results, it became evident that support systems need to be in place for all employees. Also, the LMS training would be more effective if adjustments were made to the assessment process. One way to do so would be for companies to limit the number of times an employee can take the tests and implement time limits. By keeping track of the entire learning process, education managers can evaluate the effectiveness of the courses and the learning transfer. The assessment would also provide proof for companies that their “employees have been schooled in the laws and regulations governing their business practices” (Hall, 2003, p. 4).

Summary

This chapter aimed to deepen the understanding of corporate training by means of e-learning and provide additional insights derived from the comparison across cases. Approaches suggested by experts in the qualitative analysis methods (Merriam, 1998; Stake, 2006) were followed to complete this analysis.

CHAPTER VI: DISCUSSION, IMPLICATIONS FOR PRACTICE, RECOMMENDATIONS FOR FURTHER RESEARCH, AND CONCLUSIONS

Discussion

According to *Training Magazine's* 2007 industry report, U.S. companies spend more than \$58 billion annually on formal training. Because of this, it is imperative that organizations benefit from their investments in training to make sure training is transferred to the job.

Instructor-led courses in a live classroom are still part of the overall training program in each of the three companies in this study. However, due to recent advances in computer technologies, there has been an increase in e-learning methodologies for work-related training. As evidenced in this study, more and more organizations are turning to learning management systems to distribute, manage, and assess their educational programs. However, there is no “one size fits all” to providing a successful e-learning program. The key ingredients to success for each company might be different based on their business environment, available resources, and the extent of applicability of e-learning.

The overarching question, as discussed in Chapter I, was based on Holton's (1996) transfer of training model serving as a framework for the study. This model suggests the three “crucial” factors that affect transfer of training include: motivation to transfer, transfer climate, and transfer design (Yamnill & McLean, 2001). The three primary outcomes of training proposed by this model include: learning, individual performance, and organizational results (Holton, 1996). The question which the research addressed was, “Is e-learning beneficial in training at the corporate level and how is effectiveness determined?”.

Holton's model provided a means for the researcher to observe the transfer of training through e-learning in each company and how it was applied to the work setting. This study identified several factors that contribute to the effective delivery of e-learning in corporate training. The results of this study were consistent with research conducted by Holton (1996) on the transfer of training model.

Motivation to Transfer

The cross-case analysis revealed the participants at all three healthcare organizations desired to use their knowledge and skills learned through e-learning. The individuals perceived what they were taught in online training as relevant to what they needed to know to perform their jobs successfully. This study revealed that when employees have an increased motivation to transfer, training is more likely to be effective.

Transfer Design

According to Holton (1996), one cause of failure to transfer is that training design rarely provides for transfer of learning. Employees are more likely to transfer new skills and behaviors to the job when transfer design directly addresses the interests and needs of each employee. Including employees in the design process proved to create a sense of ownership and supported a collaborative learning community among employees.

Transfer Climate

This multiple case study revealed that the transfer climate created in each company affected the trainees' ability and motivation to transfer training to the job. The role of administration proved to be a major key to offering effective online training to employees in the corporate setting. The attitudes of employees were directly linked to how they perceived they were supported by administration in each healthcare organization. Corporate support is

imperative to ensure the work environment is encouraging e-learning at all levels. One way to foster a strong transfer climate was to provide employees with initial training for utilizing LMSs. In addition, having training support systems in place sustained a stronger transfer climate across departments within the organizations.

Training Outcomes

This study revealed that individual performance can be improved with a more effective transfer design that includes multiple modes of learning with more opportunities for collaboration. Consistent with Holton's (1996) model, increased individual performance led to better results at the organizational level.

Implications for Practice

The overall conclusions were drawn from the results of the study using the research questions as a basis. Based upon these findings, the following implications for practice were made, which include:

1. Content, design, and delivery systems must be engaging and interactive for learners. Companies cannot simply rely on PowerPoint slides with lines of text to distribute e-learning. An LMS should support a collaborative learning community by offering multiple types of learning to address different learning styles.
2. Effective implementation of e-learning requires that support systems be in place for both learners and training departments. Corporate support is imperative to ensure the work environment is encouraging e-learning.
3. Executive leaders, managers, and all employees should participate in the training design in order to obtain optimal results. "Getting involved in teaching is a powerful way to

connect learning and development to the organization and deliver value” (Phillips & Phillips, 2009, p. 49).

4. Finally, e-learning must be measured for its effectiveness. Companies need to employ a feedback mechanism in order to improve performance within the organization. They would benefit from using a needs analysis approach that specifically identifies obstacles to positive transfer (Guadine & Saks, 2004) and areas that require attention.

Recommendations for Further Research

Based upon the conclusions, findings, and limitations of this study, there are several recommendations for future research. One recommendation is to include a larger number of participants from each site to increase the validity of the initial findings.

This study was conducted as a qualitative case study. Future researchers may wish to conduct a grounded theory study in an effort to develop a theory regarding the factors that lead to a successful e-learning training program. A good starting point would be to establish what defines a successful e-learning program before purchasing an LMS.

By the same token, and although prior frameworks offer suggestions for the successful assessment of e-learning programs, a unifying model of the transfer influences is absent. There is a need for research that verifies the identified best practices using empirical support of successful companies in all disciplines. The results of this study do not just apply to healthcare related training. The movement towards evidenced-based practices is important in developing scholarly practitioners in any discipline, including Human Resource Development (HRD) (Holton & Naquin, 2005). Doing so would help in developing standards that would encourage a sinuous exchange of ideas and collaboration among disciplines.

Conclusions

There is no question that the transfer of training is a difficult challenge for organizations. When employers have invested in training and find that those employees have not applied the training back to the job, employers have lost time, money, and confidence in training as a viable business investment (Broad & Newstrom, 1992).

Sloman (2002) indicates that while the practice of using computer and communication technologies for organization training has expanded rapidly, research examining the effectiveness of e-learning has lagged behind. For e-learning applications to be used efficiently in corporate education, there is a need to measure the success and effectiveness of the e-learning system systematically (Global Industry Analysts, Inc. 2008). This study was conducted in response to the need for research in the effectiveness of e-learning in healthcare training and the transfer of knowledge to the workplace.

Although great strides have been made in measuring training success, “it is still an issue that challenges even the most sophisticated and progressive learning and development functions” (Phillips & Phillips, 2009, p. 45). As companies invest in LMS vendors for e-learning purposes, there is an essential need to define criteria for evaluating LMSs to ensure they are efficient. In order for this to happen, there is a need for e-learning evaluation methods to be engaged that focus strictly on LMS evaluation. Assessing these LMS programs is the only way to ensure that e-learning delivery is beneficial for training in specific corporations.

“Since evaluation of e-learning is necessary to demonstrate it’s worth, the need for better and more widely used evaluation models is critical to the future of e-learning” (Moller et al., 2008, p. 71). Companies want facts that training courses are of high quality and value so that their employees are able to transfer what they have learned in training to their job. In order to

help businesses measure the value of their employees and their knowledge, proxy metrics need to be created and implemented for ROI analysis (Duggan & Barich, 2001). Finally and most importantly, uniform measurements must be developed to track the connections between learning, employee performance, and profitability. This study will contribute to future e-learning systems developers and managers with the help of a comprehensive e-learning evaluation model.

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APPENDIX A

E-mail Request to Conduct Study at Healthcare Organizations

Monday, June 15, 2009

Dear Director of Education and Training:

I am a doctoral student at the University of Alabama and I am preparing to begin my dissertation. My dissertation will be on corporate e-learning and how healthcare-related facilities use technology to train their employees. The ultimate goal of my dissertation is to identify if e-learning is beneficial in training at the corporate level and if so, how is its effectiveness determined? The results of this study can help guide healthcare organizations in the development of future e-learning initiatives and performance standards.

I am aware that your company uses online training for employees. I am writing this e-mail seeking your permission for an interview with yourself, as well as at least three additional employees from your company. The names of all participants will be confidential and no person or company will be disclosed. Your approval concerning this project is greatly appreciated. If you would like to participate, please respond to this e-mail, or you can reach me at (205) 617-8255.

I would like to thank you in advance for affording me the opportunity to conduct this research at your company.

Respectfully,

Allison Hodges
Doctoral candidate, Instructional Leadership

APPENDIX B

E-mail Request to Recruit Additional Employees from Each Company

Monday, June 15, 2009

Dear valued employee:

I am a doctoral student at the University of Alabama and I am conducting research on how healthcare-related facilities use technology to train their employees. The ultimate goal of my dissertation is to identify if e-learning is beneficial in training at the corporate level and if so, how its effectiveness is determined? The results of this study can help guide healthcare organizations in the development of future e-learning initiatives and performance standards.

I am aware that your company uses online training for topics such as new employee orientation and annual compliance training. I would like to invite you to take part in this study by agreeing to an interview with me. The questions will be based primarily on your perception of online training and ways that it might be improved. The names of all participants will be confidential and no person or company will be disclosed in the findings of the study. Taking part in this study is completely voluntary and you may withdraw consent and discontinue participation at any time. However, your participation would be greatly appreciated. If you would like to participate, please respond to this e-mail, or you can reach me at (205) 617-8255.

Thank you in advance for taking the time to share your experiences with me.

Respectfully,

Allison Hodges
Doctoral candidate, Instructional Leadership

APPENDIX C

Interview Protocol for Education Director/Manager

Briefly, what is your role at work?

What involvement do you have with e-learning?

How do you define e-learning?

Why use e-learning?

- What is the strategic reason for doing it?
- What caused you to want to move from face-to-face learning to online learning?
- How does size, geography, and speed affect e-learning?

How is e-learning developed?

- How do you select content and design?
- How is collaboration and interactivity built into e-learning?

What types of e-learning sources do you use for training?

- Does your training program employ synchronous, asynchronous, or a blended learning approach to e-learning?
- Do you provide a variety of e-learning sources to account for different learning styles?
- What is your preferred method of training or online learning?

Is e-learning developed internally, or do you outsource it to another company?

How is e-learning implemented?

- How do you prepare your learners?
- What technology hurdles are encountered during training?

- Are support systems available if learners have questions or something is not working correctly?

What approach to e-learning have you provided recently?

- What type of training have you found to be most beneficial?
- What type of training have you found to be the least effective?

How do you currently assess your staff's growth and training on the job?

- How do you keep track of the learners' progress?
- Is the training evaluated on an individual level?
- How do you track the connections between learning and employee performance?
- What type of measurements do you use?
- Do you measure the actual process of implementation or the outcome of changes in learners' knowledge, skills, or attitudes?

In your opinion, is online training effective?

- Have you found e-learning to be a successful source for training?
- What difficulties have you discovered with your measurement process?
- Do you feel that e-learning is more efficient than teacher-led training? Why or why not?
- Have you observed an increase in retention rates and better utilization of the content?
- Are the benefits of e-learning outweighing the costs of resources to implement it?

What recommendations would you make to improve the future success of online training?

APPENDIX D

Interview Protocol for Healthcare Employees Using E-learning

Briefly, what is your role at work?

What involvement do you have with online training, or e-learning, in your workplace?

How comfortable are you participating in this online training?

How often is the training conducted?

What types of technology do you personally use on a daily basis?

Why do you think your company uses e-learning for training?

- What is the strategic reason for doing it?
- Is e-learning more convenient for you versus attending a class?

How do you feel about the content design in your online training?

- Do you feel adequately prepared to maneuver through the online learning program?

What types of e-learning sources are used for training?

- Does your company provide a variety of e-learning sources to accommodate for different learning styles?
- What method is used in providing the training? For example, does it take place in a classroom environment or through a Web-based platform?
- What is your preferred method of learning/training?

How is e-learning implemented?

- How are you prepared to participate in online training?

- Are support systems available if you have questions or something is not working correctly?
- Do you find the technology appropriate, available, and reliable for training purposes?

What approach to e-learning have you recently participated in?

- What type of training have you found to be most beneficial?
- What type of training have you found to be the least effective?

How is your on the job training currently assessed?

- How is your progress monitored?
- Is the training evaluated individually?
- What type of evaluation is used to assess what you learned?
- As an e-learner, do you understand and apply what you have learned?

How is effectiveness determined?

- Have you found e-learning to be a successful source for training?
- What are the difficulties with this measurement process?
- Do you feel e-learning is more efficient than teacher-led training? Why or why not?
- Do you personally feel you have been adequately prepared after training?
- Do you feel like you are able to retain more information when you participate in e-learning?
- Do you feel that the training you receive through e-learning help you perform your job better?

What recommendations would you make to improve the future success of online training?