

2005

Knowledge Management in Training in Hampton Roads, Virginia

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KNOWLEDGE MANAGEMENT IN TRAINING
IN HAMPTON ROADS, VIRGINIA

A Research Project Presented to the Graduate Faculty of the Department of
Occupational and Technical Studies
Old Dominion University

In Partial Fulfillment of the Requirements for the Degree
Masters of Science

By
Stephanie McKinney
December 2005

APPROVAL PAGE

This research paper was prepared by Stephanie McKinney under the direction of Dr. John M. Ritz in OTED 636, Problems in Occupational and Technical Studies. It was submitted to the Graduate Program Director as partial fulfillment of the requirements for the Degree of Master of Science.

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Chapter I

Introduction

Employee turnover is one of the toughest challenges for many businesses. For the customer service industry, the figures tend to be higher. According to a 1999 Call Centre Benchmark Report by Purdue University Centre for Customer Driven Quality, inbound centers have an average annual turnover of 25% for full-time representatives and 33% for part-timers (Robertson, 2002). Organizations with a customer service center rely on their training department to train new employees to become valuable assets as quickly as possible. The time spent by businesses to recruit and train new support professionals can be critical to overall productivity. Knowledge management (KM) provides a resource to enable the transfer of organizational knowledge and reduce the time spent for training new employees (Joslin, 2003).

The current economy is service based as businesses focus on more than just goods but also the services provided. This has put an emphasis on customer service centers. Companies are starting to “use their products as props and their services as a stage to deliver a compelling experience” (Sanders, 2002, p. 44). Knowledge management is a consequence of this shift to a service economy because the focus is on knowledge and expertise to solve organizational problems (Iles, Yolles, & Altman, 2001). The principles of knowledge management addresses retaining the employee’s tacit (exists within an individual but has not been recorded or exchanged) knowledge and converting as much of that information as possible into explicit (captured and represented physically in some form) knowledge for retrieval and availability by everyone within the organization (Oakes, 2002). The phrase knowledge management has been used by businesses in a

variety of different ways and can mean different things to different people. For the purpose of this study, knowledge management is the strategies and tools that will enable an organization to capture and structure its knowledge assets (Hwang, 2003).

Organizations are intrigued by the solutions that knowledge management can offer to sustain and improve their bottom line (Oakes, 2002). They are developing functional areas to structure and organize knowledge. Businesses are beginning to merge the concept of knowledge management into training processes in an attempt to train quickly and show a larger return on investment (ROI). A properly implemented knowledge management solution can cut down on the amount of formal training and free up time for other learning opportunities (Tobin, 2003).

Statement of the Problem

The purpose of this study was to determine the use of knowledge management in training for customer service businesses in the Hampton Roads, Virginia, area.

Research Goals

To guide this study, the following research goals were developed:

- Determine the number of Hampton Roads, Virginia, businesses using knowledge management as an integral part of training.
- Determine what types of knowledge management processes are currently being used.
- Determine the importance of knowledge management as an area for current and future training.

Background and Significance

There has been a significant trend towards businesses and organizations establishing call centers as the primary way of interacting with their customers (Robertson, 2002). There are businesses in the Hampton Roads area of Virginia that are involved in the customer service industry. Some of these organizations possess a customer service support center devoted to addressing customer questions and issues. It is important for these businesses to actively monitor and participate in current or new industry standards and procedures, such as knowledge management, to maintain a competitive advantage.

Organizations are relying on call centers to meet customer needs. However, many businesses are struggling to find and retain qualified call center agents (Larin, 1998). In Hampton Roads, the number of potential employers in the customer service industry provides the opportunity for employees to move from organization to organization. It is common for employees to move from one call center to another in pursuit of higher wages, more benefits or better working conditions. The employees are valuable for their customer service skills but it is still necessary to train them on the specific business processes and culture of the organization (Joslin, 2003). Although businesses integrate measures to counteract high employee turnover, it is sometimes unavoidable. The loss of an experienced employee can have a significant impact to the organization because they often take important company knowledge with them. By deploying KM tools, organizations can retain the important company knowledge long after any employee leaves.

The concept of knowledge management has been used by businesses in different areas for several years. However, only a small portion of the field of training and instructional design has adopted the principles of KM or incorporated them into practice.

Knowledge management is good for training professionals because it can make it easier to situate learning and growth on the job (Rossett, 1999). “Training is key to retaining customers and agents” (Read, 2004, p. 26). One of the purposes of knowledge management is to retain the largest business asset, intellectual capital, within the organization. Intellectual capital is the knowledge and skills an employee has learned while developing and growing in the business. According to Charney (2001), KM solutions also help mitigate the effects of personnel turnover and job changes since captured knowledge remains accessible at all times.

The significance for this study was to develop awareness of the potential benefits that knowledge management can have for training, particularly within a call center environment. Training professionals should develop an understanding of the value that knowledge management can have for improving learning experiences. This is an opportunity for trainers to leverage knowledge management strategies within the business to do more than just “educate” people or disseminate information but also enhance performance (Gordon, 1999). Knowledge management and training can work cohesively to achieve the company goals. According to San Diego State University (1999), trainers will still be responsible for improving human performance, but they will also be tasked with improving access to organizational knowledge. There will be a greater impact on trainers as more and more businesses implement knowledge management. This will

require new ways of thinking and acting as well as new policies and practices, and thus affecting the roles for trainers (Iles, Yolles, & Altman, 2001).

Knowledge management can be used in training initiatives and processes by businesses. Additionally higher education institutions and universities can use the same initiatives and processes to educate new trainers and instructors. By providing education on knowledge management, this will broaden their skills and prepare the next generation of trainers and instructors for the current needs and demands of businesses.

Limitations

The following limitations should be considered when reviewing this study:

- This study focused on the use of knowledge management for training in a call center, help desk, or other support environment.
- The businesses selected ranged in size and professional services, but all possessed a call center, help desk, or other support environment.
- This study was limited to those businesses within the Hampton Roads, Virginia, area. This included the cities of Hampton, Norfolk, Virginia Beach, Chesapeake, Portsmouth, Newport News, and Suffolk.

Assumptions

The assumptions for this research study were as follows:

- 1) Businesses in the Hampton Roads area were aware of the concept of knowledge management.
- 2) The businesses studied are involved in customer service and possess a call center, help desk, or other support environment. These support environments

are dedicated to addressing and supporting questions and problems related to the organization or its product(s).

Procedures

To answer the research goals, a survey was sent to businesses in the Hampton Roads, Virginia, area. The businesses selected for this study were obtained from the telephone directory and online business directories using customer service as the keyword search. The surveys were mailed to the title of Trainer or Trainer (Call Center) and included a letter explaining the purpose of the study. The responses were collected, organized, and tabulated. The findings were analyzed to formulate conclusions and suggest recommendations for future studies on this subject.

Definition of Terms

To clarify terms used in this study, the following were defined:

- Knowledge management - a concept, in which an enterprise consciously and comprehensively gathers, organizes, shares, and analyzes its knowledge in terms of resources, documents, and people skills.
- Customer service - customer and/or technical support professionals who interact with customers, employees, and/or vendors to support the business.
- Customer services centers - considered but not limited to call centers, help desks, or other support environments that have a central pool of employees devoted to customer, employee, and/or vendor contact.

Overview

Hampton Roads businesses involved in the customer service industry are constantly searching for better ways to stay competitive with high turnover. Knowledge management is a concept that businesses are adopting to combat this obstacle. Training professionals should begin to recognize KM as an opportunity to broaden their skills for developing better training. This research paper began with a description of the research goals and outlined the procedures that will be used to answer them. The assumptions and limitations were provided to direct the scope of this project.

A review of the literature will be covered in Chapter II. This review will explore the definition and concept of knowledge management, the impact and possible benefits of KM for training, and identify previous studies on the topic. Chapter III will cover the methods and procedures used to obtain the data for this study by defining the population, detailing the instrument design, outlining the methods of data collection, and specifying statistical analysis for the data. The data will be analyzed to develop the findings in Chapter IV. This research study will be concluded in Chapter V with a summary of the research study, conclusions developed from the findings, and the researcher's recommendations for future studies on this subject.

Chapter II

Review of Literature

What is knowledge management? There are many definitions for knowledge management (KM) and equally as many ways in which the concept is applied to business. To understand this study, it is important to examine the concept of knowledge management and discuss the benefits of collaboration between KM and training. Using the research goals developed in Chapter I, this review of the literature focuses on developing an understanding of the concept of knowledge management and its relationship with training.

Knowledge Management

A key component to understanding the concept of knowledge management is recognizing the hierarchical relationship between data, information, and knowledge. The first level in this hierarchy is data, which are the raw facts and figures. Once data has some context representing an individual's work or life, then it has value and is described as information. The information becomes knowledge as people make relevant use of the information (Carliner, 2001). Harvey (2003) provides an excellent synopsis of the concept of knowledge management with the statement that the key difference between information and knowledge is that information is data, while knowledge is information with added expertise and experience. The definition of knowledge management is vast and complicated. Some experts would define it technologically and others would define it more for the functionality. In the context of this literature review and for this study, knowledge management is a process of capturing, organizing, and distributing intellectual capital throughout the organization (Carlile, 2002).

Using the knowledge component from the hierarchy, the principle of knowledge management then centers on capturing tacit knowledge and making it accessible and useful to everyone in the organization (Gordon, 1999). Tacit knowledge, one of the two categories of knowledge, resides in employees but has not been recorded (Carliner, 2001). Since tacit knowledge is found within an employee, it can be difficult to articulate into a form that can be transferred into a knowledge management tool or strategy to be used by others (Hwang, 2003). Explicit knowledge, the second category of knowledge, takes a recorded form in any means that can be used to recall the information such as books or databases. Advances in technology have made explicit knowledge readily accessible. This has contributed to an increase in the number of people who primarily work with information or 'knowledge workers' (Illes, Yolles, & Altman, 2001). This accessibility increases the interest for knowledge management as a solution for a variety of organizational issues.

Different businesses are using knowledge management tools and strategies to stay competitive but management consulting firms have predominately pioneered and implemented them (Alexander, 1999). Knowledge management processes in other industries are typically located and controlled within the Information Technology (IT) department because of the heavy dependency that KM has on technology. Knowledge management relies heavily on computers and technology to enable the storage, organization and retrieval of data and information. According to O'Dell (Stamps, 1999), it would be a challenge to use knowledge management without IT but the focus should not be on information technology. Knowledge management should address technology

and learning. Unfortunately, businesses overemphasize the technology associated with KM and underestimate the true usefulness of knowledge management.

Knowledge management needs to be about more than the technology to be effective. Knowledge management has to be about learning (Gordon, 1999). Without a focus on learning, knowledge management is really only information management or management of potential knowledge (Carlile, 2002). Throughout this literature review, the dependency on technology is mentioned but the concept is then directed at the learning and creation of knowledge environments. A goal of knowledge management is to provide the right information at the right time in the right way (Alexander, 1999). In a customer support center, they can capitalize on the right information and at the right time to provide their customers consistent and accurate information.

Knowledge management can deliver an array of business benefits that include reducing training time, improving staff morale, and helping the call center better handle constantly changing business processes, products, and information (Robertson, 2002). “Typically, employees waste a huge amount of time each day because they don’t know where to find information” (Oakes, 2002, p. 76). A KM system can bring content into a meaningful and structured format that is easily accessible by the employees when they need it most. Technologies such as database programs, groupware, and intranets allow organizations to “manage” (i.e., collect, filter, and disseminate) such knowledge in ways that were not previously possible (Reiser & Dempsey, 2002). Training professionals could be instrumental in developing learning paths to this repository of knowledge.

Knowledge management is developing into its own separate field and industry. There are employment listings for knowledge managers as well as KM degree programs

offered by colleges and universities. As KM professionals integrate into organizations, there will be potential for collaboration with all levels of business but particularly training. “Without a doubt, there are many ways that KM can enhance efforts of T&D (training and documentation) organizations. A few include content resources, motivation, supporting information, and rapid accessibility” (Carlile, 2002, p. 42). Unfortunately, the areas of training and instructional design do not widely recognize KM as a tool for trainers and instructors.

Understanding the concept of knowledge management begins at the knowledge hierarchy followed by an examination of the different categories of knowledge. Support centers can benefit from implementing knowledge management because it will improve efficiencies, increase satisfaction, and decrease costs (Joslin, 2003). The information technology portion of knowledge management acts as an enabler but it is only one component. Knowledge management also encompasses a cultural change devoted to learning and sharing information. As the field of knowledge management matures, there are potential benefits within other fields such as training and instructional design.

Knowledge Management and Trainers

Training professionals are tasked with extracting small bits of knowledge and expanding that information into useful educational modules that can be shared across the organization. “Oftentimes, useful knowledge and expertise within an organization resides with a particular individual or group, but not widely known beyond that group or individual” (Reiser & Dempsey, 2002, p. 45). Another goal of knowledge management is to deposit information into a repository by which tacit knowledge can become explicit knowledge. This is good news for trainers because it makes their roles in organizations

all the more essential (Rossett, 1999). Trainers can be instrumental in creating learning paths to the information found within knowledge management by dividing the information into areas that establish clear learning objectives with a reference to the appropriate KM resources (Carlile, 2002).

Resistance to knowledge management centers on the belief that it may impinge on the learning function or compete with training for limited resources (Hall, 2004). On the contrary, training professionals can use this information to develop or even enhance learning experiences. “Rossett and Donello (1999) suggest that as the interest in knowledge management continues to grow, instructional designers and other training professional will be responsible not only for improving human performance, but also for locating and improving access to useful organizational knowledge” (Reiser & Dempsey, 2002, p. 45).

Training has been criticized for delivering content too soon or too late to meet organizational needs (Rossett, 1999). Using knowledge management can offer the just-in-time training that the business needs to be competitive. Information prepared and disseminated today may be valuable tomorrow as the information can be updated in real time. Training professionals can use knowledge management to leverage the amount of time spent and costs associated with a new training project.

The best way to train about and apply the concept of knowledge management is having access to the right tools. Software manufacturers have developed knowledge databases and tools to offer businesses a method to retain knowledge within the organization. “Experience has shown that the use of a KM system is maximized by incorporating it into new staff training. In this way, it becomes the default method of

resolving problems” (Robertson, 2002, p. 42). Many organizations use a KM software system that is designed specifically to capture the unique organizational knowledge and make it available for use by everyone. By training employees to effectively use a knowledge management system, they become productive in a shorter amount of time. Training professionals can teach learners about the uses of the knowledge management system and the learners can incorporate the process into everyday learning. This will also support independent learning. “Just-in-time training may finally be realized through just-in-time KM, enhanced by opportunities to practice, receive coaching and participate in a longer term way” (<http://defcon.sdsu.edu/1/objects/km/defining/index.htm>).

One of the first collaboration tools, e-learning, is comprised of both training and KM (Carlile, 2002). E-learning enables the transfer and capture of tacit knowledge for knowledge management (Oakes, 2002), but the transfer of learning is associated with training. This is just one use of knowledge management for training professionals with the potential for others.

Knowledge management has tremendous potential for trainers but the relationship can be beneficial for KM professionals as well. Knowledge management professionals have a different background from trainers. Trainers are devoted to the improvement of behavior and performance and KM professional’s focuses on the information or the technology. Much greater success could be achieved if KM and training and documentation (T&D) worked together more closely (Carlile, 2002). Knowledge management could leverage the training professionals expertise on learning styles and strategies to produce a better educational experience for the learner. This collaboration between KM and T&D can offer learning experiences and performance improvements in

a different format than traditional training (Carlile, 2002). The goal of reducing the cycle time in job performance is shared between training and knowledge management, which makes collaboration seem inevitable (Jordan, 1999).

Based on this mutually beneficial relationship, there can be a cyclical flow between knowledge management and training. In this flow, knowledge management is a repository that takes portions of information and knowledge and provides it for retrieval and use by individuals for specific learning needs. Trainers can take the information within knowledge management to develop formal training of employees to increase productivity (Gordon, 1999). The cycle is complete when the trainer submits the formal training to knowledge management for storage and retrieval for future learning events. The process can begin again. This researcher developed the following model, Figure 1, based on the relationship of KM and training to illustrate the cyclical flow.

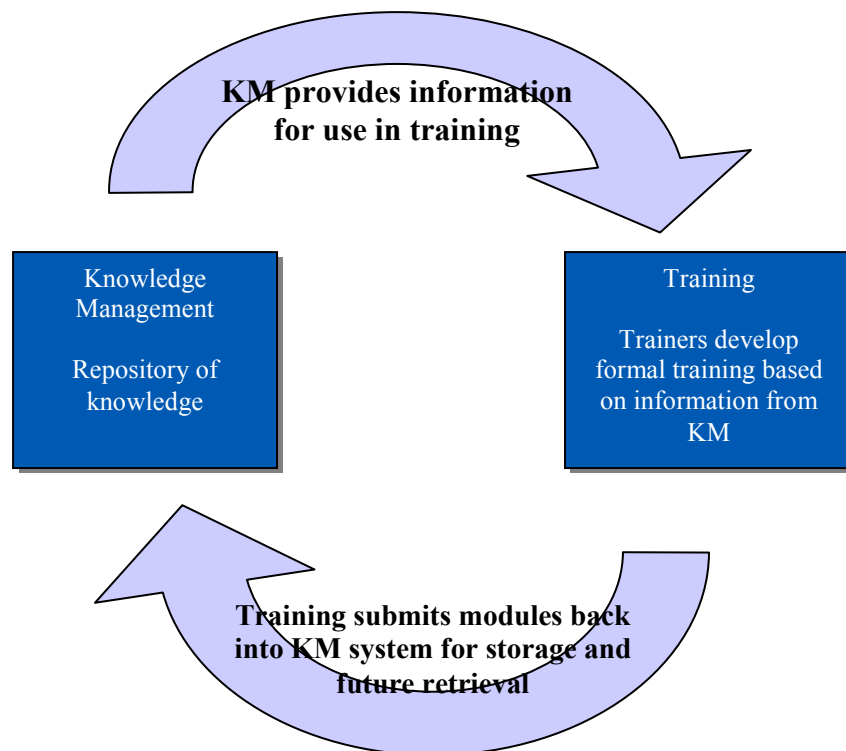


Figure 1. KM/Training Flow Model

Knowledge management provides information to the organization's support agents when they need it and it also supports independent learning. Training professionals can use knowledge management to access additional information and resources to support training programs and their development (Carlile, 2002). Knowledge management professionals can benefit from trainers by leveraging their knowledge on learning theories and strategies to identify the most appropriate learning environment. The collaboration tool, e-learning, is just the beginning for knowledge management and training.

Summary

The concept and principles of knowledge management can mean different things according to the goals and direction of an individual or organization. Although technology is a major component for knowledge management, the focus on learning will determine its success. Training and knowledge management can benefit from one another to accomplish increased productivity through learning. This review of the literature provided a definition of knowledge management and the potential benefits of a knowledge management and training collaboration. Chapter III will outline the methods and procedures used for this study.

Chapter III

Methods and Procedures

This research was conducted as a descriptive study to measure the current uses of knowledge management in training at call centers, help desks, or other support environments. This chapter describes the population, instrument design, methods of data collection, and statistical analysis.

Population

The population of this study was comprised of trainers in businesses within the Hampton Roads, Virginia, area that possessed a customer service center. This included the cities of Hampton, Norfolk, Virginia Beach, Chesapeake, Portsmouth, Newport News, and Suffolk. The organization's classification varied among the fields of information technology, government, marketing, and sales. However, each business either functioned specifically as a customer call center or possessed a group or department specifically designed as a primary source to interact with customers (internal or external). The businesses were randomly selected from the telephone directory and online business directories using customer service as the keyword search. The population size was 50 businesses within the Hampton Roads, Virginia, area. See Appendix A for a list of businesses.

Instrument Design

A survey was designed to determine the use of knowledge management for training in customer service centers. The questions were developed to support the research goals of this study which included: 1) determining the number of Hampton

Roads, Virginia, businesses that use knowledge management as an integral part of training, 2) determining what types of knowledge management processes are currently being used, and 3) determining the importance of knowledge management as an area for current and future training.

The survey was comprised of open and closed form questions to answer the research goals. The open format questions allowed for valuable input from each respondent on their experience with knowledge management. See Appendix B for a copy of this survey instrument.

Method of Data Collection

A cover letter (Appendix C) and copy of the survey was mailed to trainers within the Hampton Roads, Virginia, area on June 7, 2005. A follow-up letter (Appendix D) and an additional copy of the survey were mailed on June 28, 2005. Each survey had a unique identification number for tabulation purposes that corresponded with the business address. The responses were kept confidential and used for educational purposes only. All surveys returned by July 15th were tabulated and summarized as data for this study.

Statistical Analysis

The number and frequency of responses for each question were tabulated and reported. Software tabulation was used to report the percentages for each question in a graphical format.

Summary

Trainers within the Hampton Roads, Virginia, area were used as the population for this study. Although the businesses were randomly selected from different industries, a focus on customer service centers narrowed the scope of the population. Chapter III

also discussed the design of the instrument used to capture the data for this research study. The data collection methods and a description of the statistical analysis were also provided. In the next chapter, a tabulation of the data will be done to report the findings for this research study.

Chapter IV

Findings

The problem of this research study was to determine the use of knowledge management in training by businesses in the Hampton Roads, Virginia, area. The findings presented in this chapter represent the data collected from the survey sent to customer service centers.

The survey was developed to answer three research goals. The goals of this study were determining the number of businesses using knowledge management as well as determining the types of knowledge management processes being used. The remaining research goal was to forecast the trend of knowledge management as an important area in training.

The data are presented in subsections by the research goals. Each question as it appeared on the survey was reported to specific research goals. The written comments offered by the respondents were listed for the corresponding open-ended questions.

Results

The survey was sent to fifty businesses in the Hampton Roads, Virginia, area and twenty responses were received. Two of the survey participants were rejected from this study because they did not have a customer call center and did not consider themselves part of the study population. This reduced the overall population to forty-eight businesses with eighteen responses for a 37.5 percent completion rate for this study.

Number of Businesses Using Knowledge Management

According to the review of literature, knowledge management was used predominately by consulting firms. In other organizations, the information technology (IT) department typically controls knowledge management. Question 1 of the survey listed four specific classifications for the organizations, which were Information Technology, Health, Government, and Marketing. Some of the participants did not select from the categories listed, which have been grouped together as 'other' for tabulation purposes. Seven, or 39 percent, of the businesses selected Information Technology, which included sales, purchasing and/or manufacturing, within their industry. None of the businesses listed the health industry, which included hospital, health care, and/or clinical work, as their profession. Two, or 11 percent, of the businesses were involved in government operations, which included all levels of government. Four, or 22 percent, of the businesses were in marketing. There were five responses in the other category, which included one financial, one professional services/consulting, one telecommunications, one travel, and one respondent that selected all four categories. The other category comprised 28 percent of the responses. Figure 2 represents the percentages of the organizations by classification.

Question 2 asked for the size of the customer service center within the organization. The largest number of respondents, eight, or 44 percent, considered their organization as extra large with more than 200 agents. Six, or 33 percent, of the organizations were in the small category with less than 50 agents. Three, or 17 percent, were large with 100-200 agents and one organization; the remaining six percent of the

total was in the category of medium sized company with 50-100 agents. Figure 3 shows the size of the customer service centers who took part in this study.

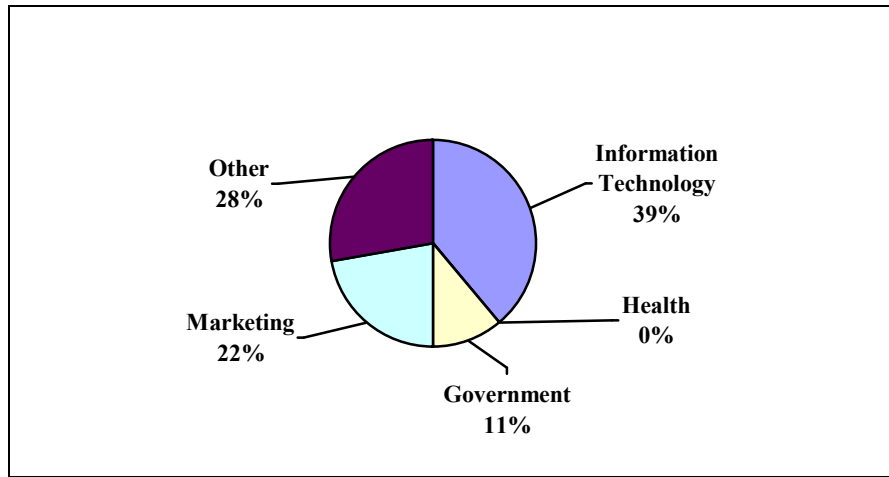


Figure 2. Organization Classifications

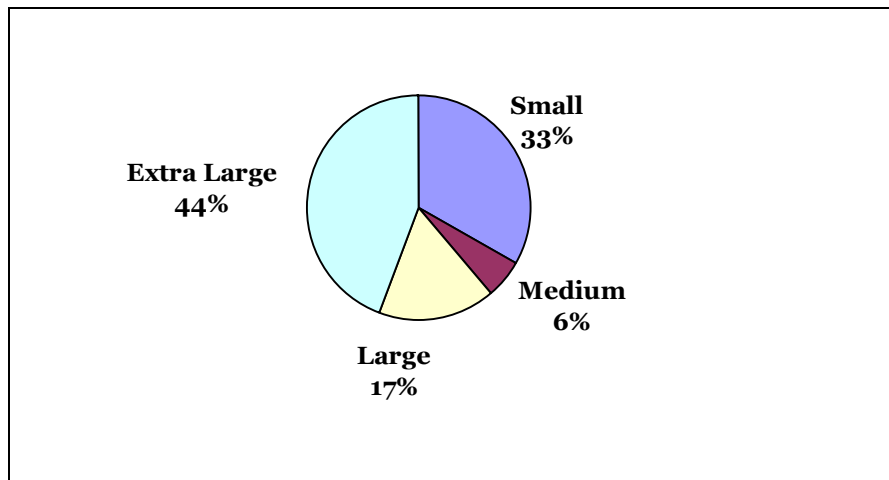


Figure 3. Call Center Size

Question 7 asked whether knowledge management was developed and controlled within a specific group or section of the organization or whether it was integrated within the training department. Eight, or 44 percent, of the participants stated KM was integrated within the training department. Five, or 28 percent, were a separate knowledge management group or section, and the remaining five, or 28 percent, were not currently

using knowledge management. Figure 4 shows knowledge management use within training departments.

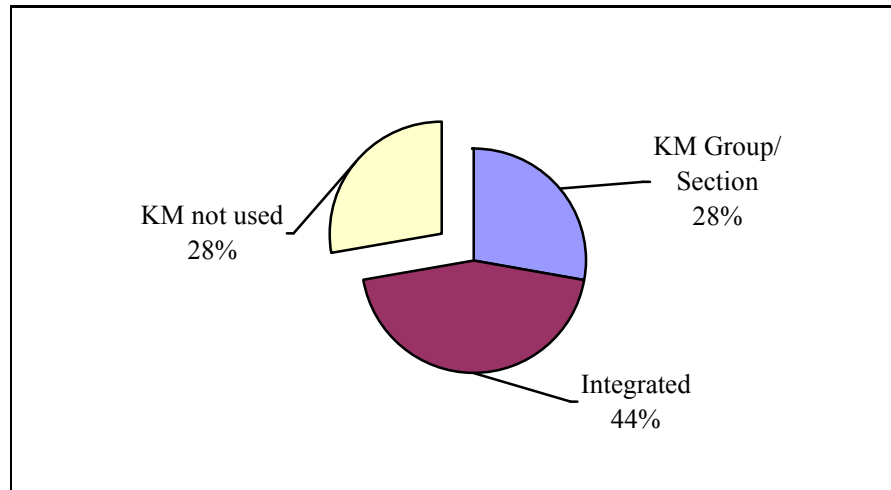


Figure 4. KM in Training

Types of Knowledge Management Processes Used

Technology is essential for knowledge management to be applied to information and specific software systems have been designed and developed for capturing knowledge. Although a software system is not required for knowledge management, Questions 3 through 5 addressed the use of a specific software system within the customer service center. In response to Question 3, ten, or 56 percent, selected yes that they use a software system and eight, or 44 percent, selected no. If the response to Question 3 was answered with a no, then Questions 4 and 5 were skipped, as they were not applicable.

The specific knowledge management system currently being used by the organization was addressed in Question 4. Some of the more popular software systems were listed as options. Using the ten responses from Question 3, two, or 20 percent, of the organizations used Computer Associates®. One, or 10 percent, used Serviceware®, two,

or 20 percent, were using Novo Solutions, and none of the respondents reported use of Talisma®. Five respondents, or 50 percent, selected the other option, which included an internal system, homegrown system, Megasys®, Peoplesoft®, and a blank response. Figure 5 displays the percentages of the different knowledge management software systems used.

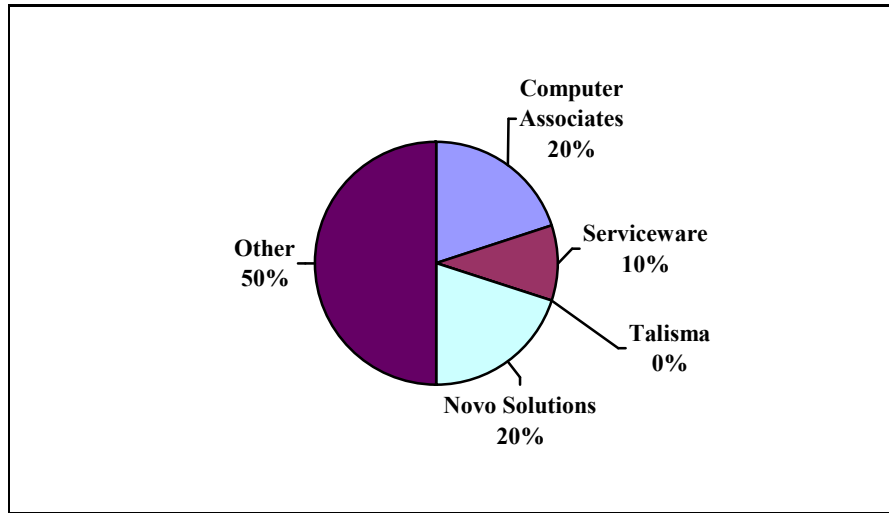


Figure 5. KM Software Systems

Organizations can be in different phases of collecting and using customer information depending on when knowledge management was implemented within their organization. The different phases provide a timeline for the longevity and future use of knowledge management systems. Question 5 addressed how long the organization had been utilizing the knowledge management system. The rate of response was divided equally among categories. Three, or 34 percent, were just starting to use the system with less than one year of use. Three, or 33 percent, had recently begun using the system within one to two years and the remaining three, or 33 percent, had been using the system for more than two years.

The location of the training department was addressed in Question 6 to determine how much impact knowledge management could have on training. Eleven respondents, or 60 percent, have internal training departments located within the customer support center. Three, or 17 percent, have external training departments located within the HR department. Three, or 17 percent, did not have a training department and none of the participants outsourced their knowledge management system. One, or 6 percent, of the respondents listed there training was a separate department, which has been categorized as other. Figure 6 represents the training department locations.

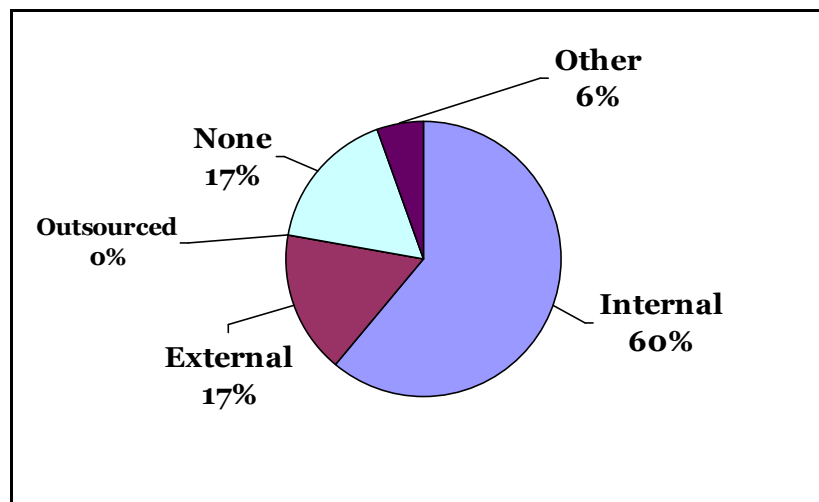


Figure 6. Training Department Locations

The focus of Question 8 concerned whether training utilized or incorporated knowledge management when developing training. Eleven, or 61 percent, answered yes, and seven, or 39 percent, answered no.

A sub-question, 8a, addressed those respondents that answered yes to how KM was incorporated into training. Of the eleven that answered yes, four, or 37 percent, selected two options simultaneously: knowledge management is used during training sessions and knowledge management is used during on-the-job training. Three, or 27

percent, selected that KM was an integrated part of training and not specifically addressed during training. Two, or 18 percent, listed other and stated all of the above; one used KM during training sessions only and one respondent did not answer this question.

Knowledge Management Trends in Training

Six, or 33 percent, of the participants answered yes that they believed the concept of knowledge management was the next evolution in training, which was the topic of Question 9. Seven, or 50 percent, of the participants answered no. The remaining three, or 17 percent, did not select either option. One did not answer the question, and one wrote that they were already using it without marking yes or no. The remaining survey respondent also did not mark an answer, but they stated that it was too vague for them to answer the question.

Question 10 addressed whether participants thought that additional education and training should be provided on KM to current and future trainers. Fifteen, or 83 percent, answered yes, and two, or 11 percent, answered no. One participant did not check any options for this question.

The participants' projections for knowledge management within training were the topic of the last survey item, Question 11. Ten, or 55 percent, of the participants selected the option that this may be something to be involved within the future. Two, or 11 percent, selected that this was just a fad and will not last, and one participant did not select any options for Question 11. The remaining five, or 28 percent, selected other. See Figure 7 for a diagram of this data.

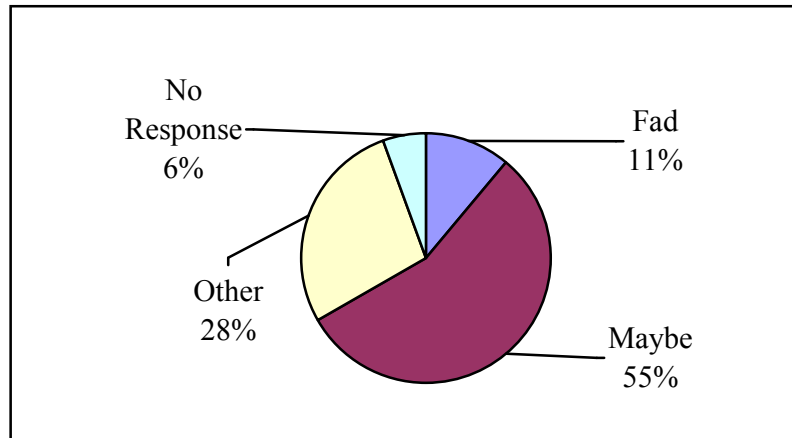


Figure 7. Trends in KM

The other option for Question 11 was an open-ended question and the participants wrote the following comments:

“This will evolve further as a tool to assist with training associates.”

“One of the best things a trainer can do is to insure that their skills are well-rounded. KM is something they should be aware of and competent in. It is only one piece of a whole myriad of areas of proficiency. Other areas to know might include organizational change and how to facilitate it, measurement and evaluation, coaching and human performance improvement.”

“I believe it will continue to play a part – as a contributory factor – in advancing T&D & organization development. Knowledge mgt will play a key role in support growth, development & advancement of new theories/trends rather than being an entity in & of itself.”

“Critical component”

“Key to organization from a training and department resource perspective”

Summary

In this chapter, the data from the survey was collected, organized, and tabulated for each question listed on the survey. After reviewing the responses, the overall population was reduced to forty-eight businesses with a 37.5 percent completion rate. The responses were categorized and arranged according to the relevant research goal each

question addressed. The participants wrote additional comments for certain questions, which have also been included in the findings. Chapter V will summarize previous chapters, draw conclusions based on the findings, and present recommendations for future studies.

Chapter V

Summary, Conclusions and Recommendations

This chapter will provide a summarization of the research study. It will also draw conclusions based on the findings and offer recommendations for future studies.

Summary

This study was conducted to determine the use of knowledge management in training within customer service businesses in the Hampton Roads, Virginia, area. The following research goals were used to answer these problems: 1) determine the number of Hampton Roads, Virginia, businesses using knowledge management as an integral part of the training department, 2) determine what types of knowledge management processes are currently being used, and 3) determine the importance of knowledge management as an area for current and future training.

A review of literature explored the concept of knowledge management and its uses in training. This study focused on businesses within the Hampton Roads, Virginia, area, which possessed a call center, help desk, or other support environments. An eleven-question survey was mailed to fifty businesses in the Hampton Roads area to obtain the data for this research study. Twenty surveys were returned but two participants did not consider themselves as part of the population and selected not to participate in this study. This reduced the total number of businesses surveyed to forty-eight. The eighteen surveys received represented a 37.5 percent response rate.

Conclusions

The following conclusions were made based on the research goals.

1) Determine the number of Hampton Roads, Virginia, businesses utilizing knowledge management as an integrated part of the training department. Over half of the respondents, 72 percent, were using knowledge management according to the findings from Question 7. This large percentage supported the use of knowledge management in training. According to the findings, 60 percent of those using KM were doing so as an integral part of the training department, which further supported the need for knowledge management as a skill for new trainers and instructors. It can be concluded that there was some collaboration currently occurring between knowledge management and training. A large percentage of the organizations were spread across various fields to include marketing and government. However, the field of Information Technology was the largest individual sector at 38 percent. This finding supported the review of literature that IT was often the controller when using and managing knowledge management. Most of the participants labeled the size of their customer service center as extra large (44 percent) with more than 200 agents or small (33 percent) with less than 50 agents. It can be concluded that knowledge management has value to all organizations regardless of the size.

2) Determine what types of knowledge management processes are currently being used. Technology was essential for success in knowledge management and vendors were attempting to capitalize by developing software systems specifically designed for KM. Fifty-six percent of the participants took advantage of the KM systems currently on the market. This researcher noted that 50 percent of those using a knowledge management

system selected other. The second largest category was an equal distribution between the use of two popular vendors, Computer Associates and Novo Solutions. This researcher concluded that some form of software system was important and necessary for knowledge management. The businesses were in different stages of the use of their knowledge management system. There was an equal division from less than a year to more than two years. This led to the conclusion that some businesses had already discovered the value of knowledge management and others were just beginning to explore the potential.

Training utilized knowledge management when developing their training as noted by 61 percent of the participants. According to the participants developing training, knowledge management was used in a variety of aspects to include during training sessions and on-the-job training. This large percentage showed that trainers in the Hampton Roads area were finding the concept of knowledge management beneficial for developing training and creating learning environments.

3) Determine the importance of knowledge management as an area for current and future training. The respondents were almost equally divided in their belief whether knowledge management was the next evolution in training within a support environment. However a large majority of the participants, 83 percent, believed that additional training and education should be provided to current and future trainers on the subject of knowledge management. Although trainers and instructors were unsure of the future of knowledge management, they did feel that it was important to provide education on the subject. One participant's comments noted that knowledge management was just one skill that should be added to trainers and instructors knowledge base. It was also noted by this

researcher that over half of the participants, 55 percent, felt that knowledge management might be something to analyze in the future. Some of the comments by the participants reinforced the conclusion that knowledge management was just one of the many skills that was needed by trainers or instructors. Trainers currently in the industry were using knowledge management and reaping from its benefits.

Recommendations

Since the response for this survey was less than 50 percent, this researcher recommends a follow-up study be conducted using a different data-gathering format to develop a better understanding of the use of knowledge management in training for the Hampton Roads area. Polling participants at local training conferences or interviewing would be a few options for a follow-up study. It is also recommended that a similar research study be conducted to explore in-depth the different forms of knowledge management methods, such as e-learning or knowledge bases, being used within training.

Based on the comments by the participants, it is this researcher's recommendation that knowledge management be included in the curriculums and programs for training professionals at higher education institutions and universities. With the concept of knowledge management being taught to new trainers and instructors, this will prepare them to offer current industry based knowledge in there training courses.

References

- Alexander, J. (1999). Knowledge Management. *The Professional Journal*. Retrieved July 25, 2005, from <http://www.afsmi.org>
- Carlile, L. W. (2002). Knowledge Management and Training: The Value of Collaboration. *Performance Improvement Journal*, Vol. 41, 37-43. Retrieved July 25, 2005, from www.ispi.org.
- Carliner, S. (2001). Eight things that training and performance improvement professionals must know about knowledge management. *VNU Business Media*. Retrieved September 22, 2004, from <http://destinationkm.com/articles/default.asp?ArticleID=325>.
- Carney, M. (2001). Knowledge Management Makes Customer Satisfaction a Strategic Asset. *CRM Project*, Vol. 2. Retrieved September 22, 2004, from <http://www.crmproject.com/>.
- Ellis, K. (2003). K-span: Building a bridge between learning and knowledge management. *Training*. Vol. 40, 46-50. Retrieved September 9, 2004, from ProQuest database.
- Gordon, J. (1999). Intellectual capital and you. *Training*, Vol. 36, Iss. 9, 30-38. Retrieved July 25, 2005, from ProQuest database.
- Hall, B. (2004). Are you READY FOR THE FUTURE? *Training*, Vol. 41, Iss. 1, 14. Retrieved September 9, 2004, from ProQuest database.
- Harvey, S. (2003). Knowledge Management: How do you do it? *Training Journal*, 10. Retrieved September 9, 2004, from ProQuest database.
- Hollman, L. (2002). Cutting Costs or Raising Revenue? *Call Center Magazine*. Vol. 15, 50-62. Retrieved September 9, 2004, from ProQuest database.
- Hwang, A. (2003). Training Strategies in the Management of Knowledge. *Journal of Knowledge Management*, Vol. 7, 92-104. Retrieved September 9, 2004, from ProQuest database.
- Iles, P., Yolles, M. & Altman, Y. (2001). HRM and Knowledge Management: Responding to the Challenge. *Research and Practice in Human Resource Management*, 9(1), 3-33. Retrieved July 25, 2005, from: <http://rphrm.curtin.edu.au/2001/issue1/knowledge.html>.

- Joslin, R. (2003). *Knowledge Management in the Support Center: Improving Efficiencies, Increasing Satisfaction, and Decreasing Costs*. Retrieved October 19, 2005, from http://parliamentary.org/html/key_Initatives/reports.asp?category=31&keykey=112&mainKey=60&contKey=8&relatKey=54.
- Larin, N. (1998). Something can be done about call centre employee turnover. *Canadian HR Reporter*. Vol. 11, 3-4. Retrieved July 25, 2005, from ProQuest database.
- Oakes, K. (2002). E-Learning. *T + D*, Vol. 56, 75-77. Retrieved September 9, 2004, from ProQuest database.
- Reiser, R. A. & Dempsey, J. V. (2002). *Trends and Issues in Instructional Design and Technology*. Upper Saddle Ridge: Merrill Prentice Hall.
- Read, B. B. (2004). Train To Retain or Feel the Pain. *Call Center Magazine*. Vol. 17, 26-34. Retrieved September 8, 2004, from ProQuest database.
- Robertson, J. (2003). Knowledge management for front-line staff. Retrieved September 9, 2004, from www.steptwo.com.au.
- Robertson, J. (2002). Ringing in the business. *Cma Management*. Vol. 76, 42-43. Retrieved September 9, 2004, from ProQuest database.
- Sanders, T. (2002). *Love is the killer app: How to win business and influence friends*. New York: Three Rivers Press.
- Rossett, A. (1999). *Knowledge Management for Training Professionals*. Retrieved September 21, 2004, from San Diego State University (SDSU) Web site: <http://defcon.sdsu.edu/1/objects/km/home/index.htm>.
- Stamps, D. (1999). Is knowledge management a fad? *Training*, Vol.36, 36-42. Retrieved September 9, 2004, from ProQuest database.
- Tobin, T. (2003). The insider's guide to knowledge management ROI. *ServiceWare White Paper*. Retrieved September 21, 2004, from <http://www.profhelppdesk.org/Library/whitepaper-KMroi.pdf>.
- Wickert, A. & Herschel, R. (2001). Knowledge-management Issues for Smaller Businesses. *Journal of Knowledge Management*. Vol. 5, 329-337. Retrieved September 9, 2004, from ProQuest database.

APPENDICES

Appendix A. Survey Mailing List – Summary

Appendix B. Survey Instrument

Appendix C. Cover Letter

Appendix D. Follow-up Letter

Appendix A

Survey Mailing List – Summary

Teletech	HRSD
Noland	Bank @ LANTEC
NetTek	Tidewater Finance Company
ESI	Financing Alternatives
Virginia Pilot	Daily Press
Panasonic Customer Call Center	American General Financial Services
Hometown Favorites	Canon ITS
Upstream LLC	Customer First Commercial Service
Nextel	Contemporary Cybernetics Group
Cox Communications	HSBC – Chesapeake
Hampton Roads Computer Co	National Service Corporation
Software Engineering Svc	Advanced Services Inc
Computer Renovators	Dollar Tree Stores, Inc.
Rescuecom of Tidewater	QVC
American Funds	Customer Directory Incorporated
Ferguson Enterprises	Symantec Corporation
West Corporation	AutoTrader.com
Bernard C. Harris Publishing Company	Cendant
Grand Discount Customer Service	Ticketmaster
NCO Financials Systems	APAC Customer Services, Inc.
Telion	Alltel
MicroHelp	Lockheed Martin System Support
Towers Perrin	Newport News, Inc.
MAP Communications	Geico
International Marketing Association	Answer Center

Appendix B

Survey Instrument

**SEND COMPLETED SURVEY TO: Stephanie McKinney, 9 Langille Ct.,
Hampton, VA 23663 or FAX TO: (757) 989-2505, Attn: S. McKinney**

SURVEY OF KNOWLEDGE MANAGEMENT FOR TRAINING IN HAMPTON ROADS, VIRGINIA

Directions: Each survey has been given an identification number for tabulation purposes. All answers and responses will remain anonymous and confidential. Please read the survey by checking the appropriate answer. Please return this form in the self-addressed envelope provided or fax to 757-989-2505. If you have questions please contact me at smcki004@odu.edu. Thank you!

1. What field does your organization specialize in?
 - Information Technology (Sale, purchase, manufacture)
 - Health (Hospital, Health care, Clinical)
 - Government (Federal, State, Local)
 - Marketing (Sales)

2. What is the size of the organization's customer service center?
 - Small (Less than 50 agents)
 - Medium (50 – 100 agents)
 - Large (100 – 200 agents)
 - Extra Large (More than 200 agents)

3. Does the customer service center utilize a knowledge management software system? If not, skip to Question #6.
 - Yes
 - No

4. Which knowledge management software system is currently being used by your organization?
 - Computer Associates (Service Desk)
 - Serviceware
 - Talisma (Knowledgebase.net)
 - Novo Solutions
 - Other: _____

5. How long has the organization used this knowledge management system?
 - Just Starting (Less than 1 year)
 - Recently (1-2 years)
 - Long Term (More than 2 years)

6. Where is your training department located?
- Internal (located within the Customer Support Center)
 - External (located within the HR department)
 - Outsourced
 - We do not have a training department
7. Does the organization have a group or section specifically for the development and control of knowledge management or is it integrated within the training department?
- Knowledge Management Group/Section
 - Integrated within Training department
 - We are not currently using knowledge management
8. Does the Training Department utilize or incorporate the knowledge management system when developing training modules?
- Yes No (If no, skip to Question #9)
- 8a. How is knowledge management incorporated into your training modules?
- Knowledge management is used during training sessions
 - Knowledge management is used during on-the-job training
 - Knowledge management is an integrated part of the training and not specifically addressed.
 - Other _____
-
9. Do you believe that the concept of knowledge management is the next evolution in training?
- Yes No
10. Do you think that additional education and training should be provided on knowledge management to current and future trainers?
- Yes No
11. What are your projections for knowledge management initiatives within a training environment?
- This is just a fad and will not last.
 - This may be something to be involved with in the future
 - Other:
-
-
-

Appendix C

Cover Letter

June 6, 2005

9 Langille Ct.
Hampton, Virginia 23663
Fax: (757) 989-2505
Email: smcki004@odu.edu

Dear Trainer/Instructor:

My name is Stephanie McKinney and I am a graduate student in the Occupational and Technical Studies department at Old Dominion University. I am currently conducting research to determine the use of knowledge management processes and instruments in training by customer service centers in Hampton Roads, Virginia.

Your organization has been randomly selected as your business is specifically a customer call center or contains some form of department or unit specifically devoted and designed as a primary source in which to interact with customers (internal or external) to support the business. As a trainer or instructor, your experience and knowledge of training will provide valuable information for this study. Your cooperation and participation will be greatly appreciated, as it is vital to the success of this study. All responses will remain anonymous and all complied data will be used for educational purposes only without disclosure of specific company information or details. After responses have been tabulated all surveys will be destroyed.

Please take a few moments right now to complete the enclosed survey and return it in the self-addressed stamped envelope or fax to 757-989-2505 by July 11, 2005. I recognize that your time is valuable so the survey is brief and should only take approximately 10 minutes for completion.

If your organization is interested in the results of this research study, I would be happy to provide this data upon request. I can be reached at smcki004@odu.edu. Thank you for your input and cooperation in this survey.

Sincerely,

Stephanie McKinney
Graduate Student
Old Dominion University

Dr. John M. Ritz
Program Director
Dept. of Occupational &
Technical Studies

Appendix D

Follow-up Letter

June 28, 2005

9 Langille Ct.
Hampton, Virginia 23663
Fax: (757) 989-2505
Email: smcki004@odu.edu

Dear Trainer/Instructor:

Several weeks ago, you should have received a survey on “Knowledge Management in Training”. If you have already completed and returned your response, I thank you. Your prompt response and professional expertise is valued in this research study.

If you have not completed and returned the survey, please do so by July 11, 2005. I need your response to complete this study. Enclosed is a duplicate copy of the survey as well as a self-addressed stamped envelope in the event your original mailing was misplaced.

Thank you again for your assistance in this graduate study.

Sincerely,

Stephanie McKinney
Graduate Student
Old Dominion University