# Dakota State University Beadle Scholar

**Masters Theses** 

Fall 8-1-2007

## Training in the Workplace

Amy M. Eickhoff Dakota State University

Follow this and additional works at: https://scholar.dsu.edu/theses

#### Recommended Citation

Eickhoff, Amy M., "Training in the Workplace" (2007). *Masters Theses.* 110. https://scholar.dsu.edu/theses/110

This Thesis is brought to you for free and open access by Beadle Scholar. It has been accepted for inclusion in Masters Theses by an authorized administrator of Beadle Scholar. For more information, please contact repository@dsu.edu.

## TRAINING IN THE WORKPLACE

A graduate project submitted to Dakota State University in partial fulfillment of the requirements for the degree of

# MASTER OF SCIENCE IN INFORMATION SYSTEMS August, 2007

By:

Amy M. Eickhoff BS in Management Information Systems/Business Management Northern State University, 2002

> Project Committee: Rick Christoph



## **PROJECT APPROVAL FORM**

We certify that we have read this project and that, in our opinion, it is satisfactory in scope and quality as a project for the degree of Master of Science in Information Systems.

Student Name: Amy M. Eickhoff	
Master's Project Title: "Training in the Workplace"	
Faculty Supervisor: Ruh Christops	-1 1 /25
Faculty Supervisor: (who Krustows)	Date: 7/24/07
Ofthe CI	
Committee Member:	Date: ^ \ Q · \ Y \ [
Committee Member	

## **ACKNOWLEDGMENT**

"Too often we are so preoccupied with the destination, we forget the journey."

It may be difficult to imagine even wanting to remember a journey such as writing a thesis, but I most definitely will. Most journeys are so much easier when you do not have to travel alone, and this is a seven-month journey that I am proud to say I have traveled with many others. I would like to express my most sincere gratitude to all individuals and groups who have influenced, motivated, and inspired me in my journey towards completing this project, as well as my degree.

- To Dr. Rick Christoph: The concept of distance education is amazing in the sense that even though we have not formally met, your guidance and experience has allowed me to create a great respect for you. Thank you for your help on this endeavor.
- To all associated individuals at Martin Group: The encouragement, patience, and survey assistance was and still is greatly appreciated.
- To my mom and siblings: Your endless love and support has been and will always be my foundation. Thank you for the inspiration to continue my education.
- To Dustin: You have recreated me. I thank you and love you for that.

I may not always remember the journey as stress-free or calm, but I will remember it with gratitude and pride.

## **ABSTRACT**

Training is key piece to any profession, service, or various life journeys. Training can include explanation and demonstration of job duties, overviews of company procedures and policies, as well as summaries of what to expect. Therefore, whether you are a volunteer at the local nursing home, president of an international bank, or something as common as having a baby, there should be at least some level of training involved.

This report focuses on how that training will affect the employee, volunteer, or individual before the training is received, during the training, after the training is presented, and at a length of time after the training is received. We will look at how the training type is selected, who selects it, how training is presented, and what did the learner actually benefit from the training? We will also focus on how various types of training affect various learners.

The two main concepts researched include training relevance and how the personal appeal of a trainer affects a training program's success. To gain insight into these issues, an online survey of 30 questions was completed by 34 individuals in May of 2007. The results were compiled to aid in the support of our research topics.

## **DECLARTION**

I hereby certify that this project constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions or writings of another.

I declare that the project describes original work that has not previously been presented for the award of any other degree of any institution.

Signe	d,				
	Amy M.	Eickł	noff		

## **TABLE OF CONTENTS**

ACKNOWLEDGMENTS	iv
ABSTRACT	V
DECLARTION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	κiκ
LIST OF FIGURES	Χ
CHAPTER 1	1
INTRODUCTION	1
BACKGROUND OF THE PROBLEM	1
STATEMENT OF THE PROBLEM	1
OBJECTIVES OF THE PROJECT	2
CHAPTER 2	3
LITERATURE REVIEW	3
History of Training	3
Purpose of Training	5
CHAPTER 3	7
RESEARCH METHODOLOGY	7
Training: Who, What, Where, When, and Why?	7
How to Train?	11
What Makes a Good Trainer?	13
Training Costs	15
Evaluating the Training	17

CHAPTER 4	22
RESULTS AND DISCUSSION	22
Strengths and Weakness of Various Methods	22
Training Results	23
Survey Approach	24
Survey	25
Hypothesis Results	26
CHAPTER 5	30
CONCLUSIONS	30
REFERENCES	32
Appendix A: Survey	35
Appendix B: Survey responses	43

## **LIST OF TABLES**

Table 1.	Demographic Information	.26
Table 2.	Hypothesis 1 Results	.27
Table 3.	Hypothesis 2 Results	.28

## **LIST OF FIGURES**

Figure 1. The Structure of the Training Evaluation Problem	9
Figure 2. Age	43
Figure 3. Gender	43
Figure 4. Education	44
Figure 5. Employment Length	44
Figure 6. Question 1	45
Figure 7. Question 2	45
Figure 8. Question 3	46
Figure 9. Question 4	46
Figure 10. Question 5	47
Figure 11. Question 6	47
Figure 12. Question 7	48
Figure 13. Question 8	48
Figure 14. Question 9	49
Figure 15. Question 10	49
Figure 16. Question 11	50
Figure 17. Question 12	50
Figure 18. Question 13	51
Figure 19. Question 14	51
Figure 20. Question 15	52
Figure 21. Question 16	52
Figure 22. Question 17	53

Figure 23.	Question 1853
Figure 24.	Question 1954
Figure 25.	Question 2054
Figure 26.	Question 2155
Figure 27.	Question 2255
Figure 28.	Question 2356
Figure 29.	Question 2456
Figure 30.	Question 2557
Figure 31.	Question 2657
Figure 32.	Question 2758
Figure 33.	Question 2858
Figure 34.	Question 2959
Figure 35.	Question 30a59
Figure 36.	Question 30b60
Figure 37.	Question 30c60
Figure 38.	Question 30d61
Figure 39.	Question 30e61
Figure 40.	Question 30f62

## **CHAPTER 1**

## INTRODUCTION

## Background of the Problem

"It's all to do with the training: you can do a lot if you're properly trained." - Queen Elizabeth

There are multiple means in which an individual learns, which furthermore indicates there are multiple means in which a teacher teaches. Training is in fact teaching and learning. "Training is the set of actions or deliverables designed to allow end users to learn and use new processes, skills, systems, and other tools proficiently and effectively in the performance of their work." (UMKC SIS-Glossary, 2007) Today it is often referred to as professional development. (Training, 2007)

## Statement of the problem

Training is an inevitable piece of any job regardless of the industry. However, what do we mean by training? What kind and how much training is needed? How much time should the training consume? Should the training be hands on, or be computer-based? Should the training be distance learning, or should the training be classroom instruction?

How much does the training cost? Are there multiple forms of training, and do the prices vary? Once that has been determined, how do we evaluate the training? Do we evaluate the course, the trainees, or the trainer? Do we evaluate the training materials, or just the complete training as a whole? As we evaluate it, what are we supposed to find? What is the training supposed to do?

These questions exemplify the extent of any effort to create, plan, implement, and evaluate training in the workplace, as well as the significance of being clear regarding the purpose of any such evaluation. Due to this, the creation, planning, implementation, and evaluation of training in the workplace often challenges many trainers, managers, executives, and other professionals with an interest in training. These challenges can be managed by examining their core organization.

## Objectives of the project

This report focuses on hypotheses regarding the process of and outcomes of training. Two primary hypotheses were developed and include:

- Hypothesis 1: All delivery methods are equally effective for training students
   when the same instructional documentation is used.
- Hypothesis 2: There is no difference in training outcomes based on trainer effectiveness.

## **CHAPTER 2**

## LITERATURE REVIEW

## History of Training

As the number of American corporations grows, the workplace environment will rapidly change. While workers used to go to their job to perform or complete tasks, they are now both working and learning. Companies are becoming everyday learning organizations, which mean they are providing ongoing work-related training to employees, offering information and resources, promoting the discussion of new ideas, and rewarding employees who are acquiring new knowledge bases. (Dutkowsky, 2007) Therefore, due to the ever-changing nature of most industries, training has increased in importance.

In November of 1959, the first of an influential four part series of articles pertaining to the evaluation of training was written by Donald Kirkpatrick. The remaining three pieces were published in February of 1960 and today can be found in *Evaluating Training Programs*, a grouping of articles collected from the pages of the American Society of Training Directors (ASTD) Journal. (Nickols, Evaluating Training, 2004)

The ASTD was launched in the 1940s, and consisted primarily of training directors. Changes in the industry were becoming apparent, as many individuals were just starting to attend ASTD conferences, and many of those individuals had only been at their current jobs for less than three years. Once the board committee members recognized the noticeable changes in the training and development businesses, they

changed the name of the society from the American Society of Training Directors to the American Society for Training and Development. (Nickols, Evaluating Training, 2004)

Not only were the training and development industries progressing, but various changes affecting the industries were also taking place. (Nickols, 1983) Behaviorism flowered for a while then wilted in the face of the shift to knowledge work. Peter Drucker, in book after book, beginning with *Landmarks for Tomorrow* (1959) and continuing through *The New Realities* (1989), reminded us that the center of gravity in the employed workforce was shifting from those who worked with their muscles to those who worked with their minds. (Nickols, Evaluating Training, 2004) By 1980, the shift to knowledge work was more or less complete. (Nickols, 1983).

As the view of working gradually changed from the workers' muscles to their minds, the attention of the managers' control shifted from the practice of direct supervision over physical behavior to a search for ways of influencing concealed mental processes. Behaviorism gave us the primary question of "What is the trainee supposed to be able to do as a result of training?" (Nickols, Evaluating Training, 2004)

From 1960 through 1990, technology was the key. The dispute between "educational technology" and "instructional technology" took place between 1965 and 1975, and the result was a tie, as positive results were achieved from both styles. (Nickols, Evaluating Training, 2004)

The 2006 ASTD State of the Industry Report states that there has been an increasing investment in workplace training and in technology used to deliver learning. Companies in the United States are spending more on training employees, providing

more hours for training employees, and using more technology now for training employees. (Rivera & Paradise, 2006)

## **Purpose of Training**

Training in the workplace is typically used to present current or future employees with the opportunity to learn how to do their job. "The overall aim of most training programs is to improve the quality of consultative, participative and partnership working. This is achieved by:

- enabling participants to develop genuinely usable skills and experience in the
   challenging arenas of process management, implementation and facilitation, and
- bringing together a set of people who will learn and then practice together in a
   way that ensures they are able to apply their learning and make real progress in
   their skills development." (Training: Purpose, Aims, Outcomes, Methods, 2007)
   Training can be a process of learning new procedures, skills, or development, or just a
   chance to review existing workplace knowledge. However, training can also be used for
   subject areas outside of the employees' actual tasks. Many companies are now using
   formalized training programs to inform their employers about company policies on
   sexual harassment, discrimination, diversity, and safety. As long as the employees are

"Training is a management tool, not the private domain of those who specialize in its development or delivery, nor of those who make its development and delivery contingent upon some other methodology." (Nickols, Evaluating Training, 2004)

trained concerning unjustified behavior, expected consequences, and the recourse

People Management Career Information, 2000)

victims can take, companies are protected legally. (Using PCs to Curb Liability: Vault

As a management tool, training serves many purposes. Below is a list of these purposes, with the intention to prompt thought regarding how the evaluation of training might vary with the purpose or use of the training itself.

- 1. Focusing energy on issues.
- 2. Making work and issues visible.
- 3. Supporting other interventions.
- 4. Legitimizing issues.
- 5. Promoting change.
- 6. Reducing risk.
- 7. Creating a community based on some shared experience.
- 8. Building teams.
- 9. Indoctrinating new staff.
- 10. Communicating and disseminating knowledge and information.
- 11. Certifying and licensing.
- 12. Rewarding past performance.
- 13. Flagging "fast trackers."
- 14. Developing skills.

The list provides a wide variety of purposes, which leads to the natural conclusion that the results from training would also be quite varied. (Nickols, Evaluating Training, 2004)

## **CHAPTER 3**

## RESEARCH METHODOLOGY

Training: Who, What, Where, When, and Why?

What do we mean by training? What kind of training? How much training? How much time should the training consume?

When taking that initial step of organizing training, training experts suggest performing a training needs assessment. This will help optimize the benefits to those who will be training, as well as save time. Most importantly, it will answer the above questions of who, what, where, when, and why?

A training needs assessment is a tool used to identify what type of training that should be provided to employees to improve their work productivity. The focus of the assessment should be placed on the needs rather than the desires. The assessment should be done to pinpoint if training will even make a difference in productivity, to determine which individuals are in need of an initial training or perhaps an enhanced training, and to differentiate between the need for training and organization issues.

In order to conduct a training needs assessment, many methods can be used individually or in combination with each other. Oftentimes, more than one technique should be considered in order to get an enhanced view of the big picture. (Ruggieri)

It is suggested to:

Meet with management.

The management team is often more involved in planning, new developments, and future plans; therefore, these individuals will know what type of training will be needed. (Ruggieri)

2. Meet with employees.

Each committed employee is often very aware of what skills and knowledge they are lacking in their day-to-day work, as well as what would be helpful for the future. The primary thing to focus on when discussing training options with employees is to focus on what they need rather than what they want. (Ruggieri)

3. Conduct surveys.

When it comes to assessing training needs, surveys are encouraged as they create the opportunity to gather confident information from many individuals in a short time frame. Many employees may be more open and honest, and therefore more helpful, as they may find the survey as an opportunity to relay a training need they otherwise would not admit. (Ruggieri)

4. Conduct focus groups.

Small group communication, whether it be related or unrelated employees, can create the opportunity for the exchange or new thoughts and ideas regarding what type(s) of training is needed or requested. The focus groups can be held once or repeatedly, depending on the need.

(Ruggieri)

The goal of most training is in support of skill and/or knowledge requirements initiated in the workplace. The relationship between training and the workplace is illustrated in Figure 1. (Nickols, Evaluating Training, 2004)

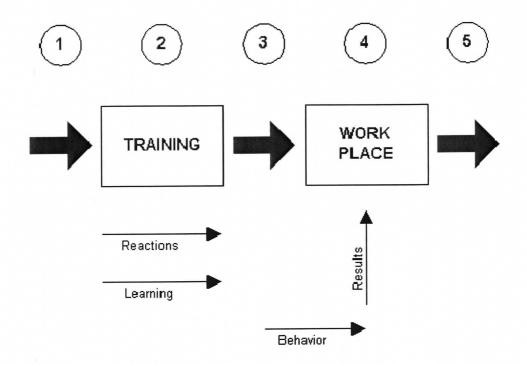


Figure 1. The Structure of the Training Evaluation Problem

Using the diagram in Figure 1 as a structural framework, we can identify five basic points at which we might take measurements, conduct assessments, or reach judgments. These five points are indicated in Figure 1 by the numerals 1 through 5:

- Before Training
- 2. During Training
- 3. After Training or Before Entry (Reentry)
- 4. In The Workplace
- 5. Upon Exiting The Workplace

The four elements initially discussed regarding Kirkpatrick's framework are also shown in Figure 1 and discussed below:

#### 1. Reactions.

"Reaction may best be defined as how well the trainees liked a particular training program." Feedback is usually received and assessed at the end of training (Point 3 in Figure 1). However, that is a collective assessment, and reactions are measured during the training. (Nickols, Evaluating Training, 2004)

## 2. Learning.

"What principles, facts, and techniques were understood and absorbed by the conferees?" What the trainees know or do can be measured during and at the end of training, but in order to say that this knowledge or skill resulted from the training, the trainees' entering knowledge or skills levels must also be known or measured. Evaluating learning, then, requires measurements at Points 1, 2 and 3, or before, during and after training. (Nickols, Evaluating Training, 2004)

#### 3. Behavior.

Evaluating any transformations in the workplace behavior must occur in that workplace itself (Point 4 in Figure 1). If the changes are a result from training, then the behavior will be attained during the training course itself, and then transferred to the workplace setting. Therefore, any behavior changes should be assessed after the training is completed. (Nickols, Evaluating Training, 2004)

#### 4. Results.

There are many aspects to look for in terms of results. "Reduction of costs; reduction of turnover and absenteeism; reduction of grievances; increase in quality and quantity or production; or improved morale which, it is hoped, will lead to some of the previously stated results." These factors are also measurable in the workplace (Point 4 in Figure 1). (Nickols, Evaluating Training, 2004) It is worth noting that there is a shifting of conceptual gears between the third and fourth elements in Kirkpatrick's framework. The first three elements center on the trainees; their reactions, their learning, and changes in their behavior. The fourth element shifts to a concern with organizational payoffs or business results. (Nickols, Evaluating Training, 2004)

The length of the training program will vary according to the needs of your company, the material to be learned, the ability of the instructor, and the ability of the trainees to learn. Much thought should be given to which hours the training class will be presented in (working or off-hour), and whether or not the training will be a one-time class or recurring number of sessions.

#### How to Train?

Should the training be hands on? Should the training be computer-based? Should the training be distance learning, or should the training be classroom instruction?

Media are "mere vehicles that deliver instructions but do not influence student achievement any more than the truck that delivers our groceries causes change in our nutrition." (Sitzmann, Wisher, Stewart, & Kraiger, 2004)

Once the training content has been determined, it is important to consider what platform to utilize in order to successfully execute the training. There are many choices available for trainings, such as lectures, seminars, videos, computer based trainings (CBTs), and the distance education. Books and magazines are options for more informal and basic trainings, whereas working groups or shadowing may be more beneficial with the necessity to learn from experience. Instructional methods include the lectures, discussions, videos, etc. Delivery methods include the classroom instruction, CBTs, internet, etc.

Before selecting a training technique, it is beneficial to review the audience and the potential types of learners that may exist. Research suggests that there are four different types of learners: visual, kinesthetic, auditory, and oratory. A visual learner will benefit from presentations and examples. A kinesthetic learner will gain from exercises, practicing, and role-playing. An auditory learner needs to hear what they are learning, which makes lectures and tapes useful methods. An oratory learner will learn best from group discussions and projects. (Stevenson, 2007)

In order to evaluate the quality of training programs methods, it is important to review the below factors:

- 1. Objectives reported to trainees
- 2. Content is meaningful to trainees
- 3. Learning aids provided
- 4. Opportunity to practice
- 5. Feedback
- 6. Interaction with other trainees

7. Training program is efficiently coordinated and arranged

The location of the training is something that will vary from class to class. The type of training (seminar, computer-based, etc) will obviously influence where the setting should be. The method of instructions and audiovisuals used will also influence what type of physical facilities will be needed. In certain situations, the necessary physical facilities may also influence which location is used.

## What Makes a Good Trainer?

A training program's success is largely dependent on the trainer. A qualified instructor could create a stimulating learning environment and attain great results even with restricted resources. However, an unqualified instructor may produce a failing class even with the best course program and resources. (Stevenson, 2007)

When it comes to the actual process of training, 10 steps should be taken:

- 1. Explanation
- 2. Demonstration
- 3. Imitation
- 4. Repetition
- 5. Repetition
- 6. Repetition
- 7. Repetition
- 8. Repetition
- 9. Repetition
- 10. Repetition

The Indiana Workforce Management company published a newsletter titled 'Eye on Learning' that outlined successful trainer behaviors to help the instructor provide training and development that will transfer skills back to the job. These behavior traits are listed below:

An accommodating trainer will provide information for the employee about exactly what the training session will involve, prior to the training. This will help reduce the person's normal anxiety about trying something new. If the trainee knows what to expect, he/she can focus on the learning and training transfer rather than the potential discomfort with the unknown. (Eye On Learning, 2006)

An honest, but firm, trainer will make clear to the employee that the training is their responsibility and that they need to take the training seriously. The trainer will explain that the trainee is expected to apply themselves to the training and development process before, during, and after the session. This includes completing pre-training assignments, actively participating in the session, and applying new ideas and skills upon returning to work. (Eye On Learning, 2006)

An involved trainer will make sure that internal or external training providers supply pre-training assignments. Reading or thought-provoking exercises in advance of the session promote thoughtful consideration of the training content. Exercises or self-assessments, provided and scored in advance of the session, save precious training time for interaction and new information. These ideas will engage the employee in thinking about the subject of the session prior to the training day. This supplies important paybacks in terms of his interest, commitment, and involvement. (Eye On Learning, 2006)

A prepared trainer will train supervisors and managers either first or simultaneously so they know and understand the skills and information provided in the training session. This will allow the supervisor to model the appropriate behavior and learning, provide an environment in which the employee can apply the training, and create the clear expectation that he/she can expect to see different behavior or thinking because of the training. An executive, who has participated in the same training as the rest of the organization, is a powerful role model when they are observed applying the training. (Eye On Learning, 2006)

An all-around great trainer will keep the trainees engaged by making them think, making them do, and making them laugh. Communication is key, passion is apparent, and confidence is vital. (Stevenson, 2007)

## **Training Costs**

How much does the training cost? How much should you spend for training? Are there multiple forms, and do the prices vary?

In the 2006 ASTD State of the Industry Report, it was estimated that U.S. companies annually spend \$109.25 billion on employee learning and development. Nearly \$79.75 billion of that is expected to be spent on the internal learning function, with the remaining 29.50 billing spent externally. The typical number of hours of that formal learning per employee increased from 35 hours per employee in 2004 to 41 hours per employee in 2005. The typical cost of learning went from \$1,113 per hour in 2004 to \$1,101 per hour in 2005. (Rivera & Paradise, 2006)

From a business focal point, a major issue to consider in your training courses is the cost. For budget conscious companies (which typically is every company), the cost

of training may be a deciding factor. However, it is important to not allow price to be your only influencing consideration when selecting a training course or training institution. (Hoffman, 2000) Another important step to take is to complete a cost benefit analysis before evaluating whether or not the training will be worth it in value. How do you value the investment? It may be necessary to calculate the costs of your training before starting the program, thus allowing you to budget the necessary funds for the program. There are many cost levels to think of when preparing for a training event, but it is vital to plan for the future rather than just the immediate training needs. It is careless to choose a poor training program or institution in hopes of saving money. (Training costs - Department of Education, Training and the Arts, 2005)

The first level of training costs to consider is the travel expenses. When the company trainees must travel to a training program, they will incur many expenses, including transportation, lodging, and meals. If the training program does not require the trainees to travel, it will typically then require a trainer to travel to the trainee's location. This format will incur travel expenses for the trainer; therefore, it is vital to understand who is responsible for those costs. (Analyzing Training Costs, 2006)

Training programs will generally contain material and equipment costs, including manuals, handouts, flip charts, projectors, TV, computer, or supplements. (Analyzing Training Costs, 2006) It is important to know beforehand whether these materials should be purchased, leased, or developed, as well as who is responsible for the expenses.

The location of the training program is going to determine the facilities costs.

Whether the company uses its own company site or rents a conference room, there

will be expenses that must be paid, yet they will have little effect on the success of the training program. (Analyzing Training Costs, 2006)

Additional expenses associated with training programs will include personnel costs, administrative costs, and lost opportunity costs. The personnel and administrative expenses will include the normal salary these employees would earn. The lost opportunity cost is the expense of losing the productivity of employees while they are in a training program.

From a training institution focal point, all activities, personnel, materials, equipment, facilities, etc that may potentially cost money must be reviewed before each training course cost can be determined.

## Evaluating the Training

How do we evaluate the training? Do we evaluate the course, the trainees, or the trainer? Do we evaluate the training materials, or just the complete training as a whole? As we evaluate it, what are we supposed to find, and what is the training supposed to do?

A post-training survey is an effective approach to determining whether the training course was successful. (Ruggieri) Pieces of the training to consider in the survey include:

- 1. Be sure to ask questions on all aspects of training, including:
  - a) Trainer.How effective were they? Were they knowledgeable? Did they

present the topic in an interesting manner? Were they prepared?

Did they communicate well? Were they responsive to questions and other needs? (Ruggieri)

b) Subject.

Did you need training on this topic? If so, did you learn as much as you would have liked? What else would you like to know about the topic? (Ruggieri)

c) Delivery of Training.

Was the training a straight lecture, lecture with PowerPoint presentation, or hands-on? Was the presentation conducive to your learning style? If it was straight lecture, would you have preferred to be more hands-on? If it was hands-on, would you have preferred to take notes during a lecture? (Ruggieri)

d) Training Tools.

Were the books useful and relevant to the topic? Were handouts clear and concise? Was technology equipment working properly? (Ruggieri)

e) Duration.

Was the program long enough, too long or just right? (Ruggieri)

- Keep the survey brief. If possible, limit the survey to 20 questions,
   separating it into each area of training (trainer, handouts, etc.). (Ruggieri)
- 3. Choose a clear and simplistic format, varying question style. (Ruggieri)
- 4. Set parameters for most questions. It is easier to evaluate data when you set the limits of the respondent's answer. The only exception is the last

- question of the survey, which can be an open-ended question looking for additional feedback. (Ruggieri)
- 5. Don't get too specific. Focus only on aspects of training. (Ruggieri)
- 6. Keep the survey anonymous to encourage total honesty. (Ruggieri)
- 7. Consider providing two separate surveys. Offer one survey for participants, covering topics discussed above, and one for management, focusing on administrative and financial aspects. For example, was this training worth allocating your budget for? (Ruggieri)
- 8. Offer an incentive. Incentives are always a great way to get people to take action. (Ruggieri)

Evaluation includes getting ongoing feedback, including responses from the learner and the trainer, in order to improve the quality of the training and identify if the training objectives were achieved. (McNamara) The four elements of Kirkpatrick's framework also work into the evaluation process:

Reaction.

What does the learner feel about the training? (McNamara) When evaluating the reaction to the training, the goal is to find each individual trainee's thoughts and feelings in regards to the training course. Did they enjoy the training? Did they think it was effective? No matter what the individual's results, these reactions should not be translated in terms of how effective the training actually was. (Stevenson, 2007)

### 2. Learning.

What facts, knowledge, etc., did the learner gain? (McNamara) If the reactions to the training were positive, it does not necessarily mean the training was successful and the trainees met the learning objectives.

Likewise, if the training produced negative reactions, it does not necessarily mean the training was unsuccessful and no learning objectives were met. Evaluations at a learning level are useful to determine if the participant has the required skill and knowledge, where the trainee may need additional development, and how the training can be improved. (Stevenson, 2007)

#### 3. Behaviors.

What skills did the learner develop? What new information is the learner using on the job? (McNamara) If positive reactions to the training were received and it has been determined that the trainees did meet the learning objectives, it is still uncertain as to whether or not the training can be applied to the workplace. Behavior evaluations can be used to recognize work environment barriers that may inhibit the trainee from applying their new skills and knowledge. (Stevenson, 2007)

#### Results or effectiveness.

What results occurred, that is, did the learner apply the new skills to the necessary tasks in the organization and, if so, what results were achieved? (McNamara) In terms of evaluating, solid results and effectiveness are the most desired, yet the most challenging to

accomplish. Evaluators tend to look for soundness, dependability, and trustworthiness in their evaluation. Obtaining these qualities may require time and resources that the company does not have. No matter what the approach, evaluations can be completed before, during, and after the training course. (Stevenson, 2007)

The diagram in Figure 1 shown earlier provides Kirkpatrick's evaluation framework as well as the points at which measurements can be taken, data collected, etc. The reactions of the students can be assessed at Point 4, once they have been on the job for a period of time. Points 2 and 4 can be compared in terms of the training environment versus the workplace environment. (Stevenson, 2007) This comparison can be helpful when studying the transfer of training from the classroom to the workplace.

## **CHAPTER 4**

## **RESULTS AND DISCUSSION**

## Strengths and Weakness of Various Methods

As discussed in Chapter 3, various methods can be utilized when implementing a training course. The instructional and delivery method will both play a large role in the stability of the program, as some types will allow all training objectives to be met, while others will be limited. It is important to review the strengths and weaknesses of each method before selecting a final choice.

Lectures and seminars allow accurate information to be presented in a consistent and reasonable way, and are very useful for larger group sizes. The communication is only one-way though, and therefore it is difficult to determine if the training objectives have been met. This approach is also largely dependent on age. (Instructional Methods - Advantages and Disadvantages, 2007)

Videos can be an entertaining way to keep your audience's attention, as well as present a professional approach to your content. Videos can also limit participation.

(Instructional Methods - Advantages and Disadvantages, 2007)

Computer based trainings (CBTs) and other self-paced tutorials can be successful when the objectives are to be met at a self-determined pace or schedule. A wide variety of training topics and levels can be addressed, however, this method does not allow for any relationship building or one-on-one help that is often necessary when

learning applications. (Survey of Non-Program Resources for Teacher Technology Training)

Working in small groups has been supported by research as an effective training technique. (Instructional Methods - Advantages and Disadvantages, 2007) It can also help develop personal skills like teamwork and patience. In contrast, not all students will benefit from this level of learning, as aggressive students will dominate and passive students will step back. (Instructional Methods - Advantages and Disadvantages, 2007)

Online (web-based) learning can provide a wide variety of resources that are very accessible. However, the quality and validity of the information is questionable and the access is often dependent on outside factors (computer, internet service provider, etc). (Survey of Non-Program Resources for Teacher Technology Training)

Hands-on learning is perhaps the most beneficial form of training available. A familiar Chinese proverb states, "I hear and I forget. I see and I remember. I do and I understand". This statement is the epitome of how advantageous hands-on training can be. No matter what topic is being studied, the benefit to trainees can include increased learning, increased motivation, increased enjoyment, increased skill proficiency, increased independent thinking, and increased perception and creativity. Very few disadvantages exist for this experimental learning method, but such drawbacks include the required need for a trainer/supervisor and the possible need for an extended period of training.

## Training Results

Training in any form can be seen as a way to provide trainees with new skills and knowledge essential to their delegated tasks. Training can also be used as involvement

in problem solving to those problems that exist outside of an employees' skills or knowledge.

When there is a deficit in skills or knowledge, and those deficits are causing errors in the workplace, it can be reasoned that a successful training program can reduce or even eliminate some of these mistakes. Such reductions or eliminations of workplaces errors, as well as the financial value of any such reduction, represent the results of training. With that, training can either be viewed as a way to prevent workplace mistakes, correct them, or both.

## Survey approach

Surveys are often very useful, and sometimes even necessary, when doing research. For questions on an individual's unique experience and/or personal opinions, a survey is typically the preferred method for gathering that information. (Surveys, 2005)

There are various methods that can be used when conducting a survey. A face-to-face approach is helpful when trying to establish a relationship, but the results may be biased depending on the interviewer. A written survey is a simple and inexpensive approach for larger groups, but the response rate is often lower. A computer/online survey is an easy and consistent option, as well as cost effective, but will mis-represent the computer-illiterate. A telephone approach is quite inexpensive and can be easy to administer, but again, the interviewer can skew the results. Due to the convienence and accessibility for participants, as well as the expected audience, an online survey was chosen for this project. (Surveys, 2005)

#### Survey

During the month of May 2007, an online survey was completed by 34 individuals. There was no particular industry targeted, as the only prerequisite given was that each user must be employed and have completed a training course applicable to their employment. A few examples of the job positions and companies polled include:

- Technical Support Analyst at a software and engineering company
- Apprentice Electrician at an electrical company
- Registrar and assistant professor at a university
- Database developer at a bank
- CPA at an accounting firm
- Economic Assistance Benefits Specialist for the Department of Social Services
- President of a software company
- Radiologic Technologist at a hospital.

The survey (included in Appendix A) consisted of 30 questions, including such areas as knowledge transfer, motivation for training, individualization of training, and degree of satisfaction.

Demographics are found in Table 1.

Table 1. Demographic Information		
Age of User:	<=30	16
	>30	18
Gender:	Male	14
	Female	20
Education Level:	Some High School	0
	High School Graduate	0
	Professional/Tech	5
	Some College	2
	College Graduate	23
	Graduate School	4
Employment Length:	< 3 years	15
	3+ years	19

Respondents used a Likert scale to indicate the extent to which they disagreed (1 indicates strong disagreement) or agreed (5 indicates strong agreement).

#### Hypothesis Results

• **Hypothesis 1:** All delivery methods are equally effective for training students when the same instructional documentation is used.

In attempt to test Hypothesis 1, the survey respondents were first separated into two groups: those who had hands-on training and those who had an alternate form of training, such as lecture/seminar, webinar, or on-the-job (Survey Question 10). These two groups were then compared based on their own evaluation of the trainings received (Survey Question 1, Survey Questions 30a-d, and Survey Question 30f).

Table 2 below displays the statistical results for Hypothesis 1:

Table 2. Hypothesis 1 Results				
Question	N	Mean	Prob>T	Accept/Reject
My work performance has improved through training I have received for this position.	Hands-On=18 Non-Hands-On=16	3.81 4.06	0.480	Accept
How would you rate the training you have received: Availability of classes	Hands-On=18 Non-Hands-On=16	3.75 3.39	0.239	Accept
How would you rate the training you have received: Course Content	Hands-On=18 Non-Hands-On=16	3.69 3.56	0.524	Accept
How would you rate the training you have received: Course Materials	Hands-On=18 Non-Hands-On=16	3.75 3.39	0.080	Reject
How would you rate the training you have received: Frequency of Classes	Hands-On=18 Non-Hands-On=16	3.31 3.11	0.572	Accept
How would you rate the training you have received: Timeliness of Classes	Hands-On=18 Non-Hands-On=16	3.56 3.61	0.871	Accept

The statistical results show very little difference between the two groups in regards to the specific training questions asked. However, this is typically due to the variance in each training course's content, as well as the specific user (intelligence, learning style, etc). Assuming the same instructional documentation is used, it is virtually impossible to declare that one learning method will be more effective than another will for the same individual. Therefore, I will neither accept nor reject this hypothesis, and instead state that while the delivery method will play a significant role in training programs effectiveness, there are other factors that will also have a considerable responsibility.

• **Hypothesis 2:** There is no difference in training outcomes based on trainer effectiveness.

In attempt to test Hypothesis 2, the survey respondents were first separated into two groups: those who rated their trainers successfully and those who rated their trainers poorly (Survey Question 30e). These two groups were then compared based on their own evaluation of individual aspects of the trainer (Survey Question 25-29).

Table 3 below displays the statistical results for Hypothesis 2:

Table 3. Hypothesis 2 Results				
Question	N	Mean	Prob>T	Accept/Reject
My trainers were technically very knowledgeable.	Successful=30 Non-Successful=4	4.18 2.75	0.006	Reject
My trainers dealt with my questions and problems.	Successful=30 Non-Successful=4	4.03 3.25	0.055	Reject
My teachers managed to descriptively present and mediate the contents of the course.	Successful=30 Non-Successful=4	4.00 2.75	0.017	Reject
My trainers used the available media properly.	Successful=30 Non-Successful=4	3.93 3.00	0.000	Reject
I could recommend my trainers to my colleagues.	Successful=30 Non-Successful=4	4.10 3.00	0.000	Reject

The statistical results show a rather large difference between the two groups in regards to the trainer questions asked. Based on these results, when a trainer is knowledgeable, will answer questions and solve problems, will effectively present course contents, and use available media, the trainer is then regarded as a successful trainer. A successful trainer is an effective trainer, and an effective trainer produces

effective training programs. Therefore, I will reject this hypothesis and state that trainees will indeed benefit more from courses directed by effective trainers than courses directed by less effective trainers.

# **CHAPTER 5**

#### CONCLUSIONS

As stated in the abstract, training is a key piece to any profession, service or various life journeys. The goal of this project was to concentrate on how training plays a role in today's typical workplace. Today's society is facing many harmful aspects of the workplace, including record unemployment numbers, outsourcing, and downsizing. The employed are recognizing the value in having a job, while most of today's companies are becoming conscious to the idea of how valuable their employees really are.

Corporations are investing in educating those valuable employees, allowing them to grow with the company, as well as the industry. Training will play a crucial role in this process for both the company and the employees.

Designing and applying an effective training program requires a results-oriented and employee focused method to make certain corporate and individual objectives are met. Training should not be an event, but instead a very critical, necessary, and valuable approach to employee and corporation growth. Successful training programs include a needs assessment, an effective training design, qualified trainers, and proper implementation and evaluation processes.

Below is an overview of how training can play a role in the workplace:

- Training can be applied to inform employees of company policies and procedures.
- Training can be used to educate new employees with knowledge and skills in order to perform a new job.

- Training can be implemented to reinforce knowledge for existing employees.
- Training can assist in correcting shortfalls in an employee's knowledge or skills,
   in attempt to correct a workplace error or problem.

While hypothesis 1 was not accepted nor rejected, the research did provide evidence to the importance of the delivery method selection. Hypothesis 2 was rejected, and confirmed that a training program is more effective when the trainer is competent. Research has also demonstrated how significant various pieces of the training process are to the overall effectiveness of the training program.

This report focuses on training in the actual workplace, yet training is a subject matter that can be used in a wide variety of circumstances and settings. Just as the type and process of training used will vary within a corporation, it will also vary outside the company walls and be largely dependent upon each scenario and objective.

### **REFERENCES**

Analyzing Training Costs. (2006). Retrieved March 2007, from ACT Center: http://www.actmedia.org/act\_center/documents/costs.shtml

Dutkowsky, S. (2007). Trends in Training and Development - THE NEW ECONOMY, TRAINING IN U.S. COMPANIES, WHO DOES THE TRAINING IN CORPORATIONS? Net Industries.

Hoffman, R. (2000, December). *How are training costs calculated?, Financial Management Article*. Retrieved March 2007, from Inc.com - The Daily Resource for Entrepreneurs: http://www.inc.com/articles/2000/12/21251.html

Instructional Methods - Advantages and Disadvantages. (2007, February 23). Retrieved April 2007, from ADPRIMIA: http://www.adprima.com/teachmeth.htm

Management, I. W. (2006). Eye On Learning.

McNamara, C. (n.d.). *Evaluating Training and Results*. Retrieved April 2007, from Free Management Library: http://www.managementhelp.org/trng\_dev/evaluate/evaluate.htm

Nickols, F. W. (2004, September 12). *Evaluating Training*. Retrieved March 2007, from Distance Consulting: http://home.att.net/~nickols/evaluate.htm

Nickols, F. W. (1983). Half A Needs Assessment: What is in the world of work and working. *NSPI Journal* .

Rivera, R. J., & Paradise, A. (2006). *State of the Industry in Leading Enterprises.* American Society for Training & Development.

Ruggieri, D. M. (n.d.). *Training Needs Assessment - What, Why and How to Assess Training Needs*. Retrieved February 2007, from About.com: http://adulted.about.com/od/trngneedsasst/a/needsassessment.htm

Sitzmann, T., Wisher, R., Stewart, D., & Kraiger, K. (2004). *A Meta-Analysis on the Effectiveness of Web-Based Instruction*. Advanced Distributed Learning.

Stevenson, D. C. (2007). *Training and Staff Development*. Human Resource Management Certificate Program, University of Washington.

Survey of Non-Program Resources for Teacher Technology Training. (n.d.). Retrieved February 2007, from http://kairos.technorhetoric.net/7.3/response/techteach/amy/survey.html

Surveys. (2005). Retrieved March 2007, from Thomson Wadsworth: http://www.wadsworth.com/psychology\_d/templates/student\_resources/workshops/res\_methd/surveys/surveys\_01.html

*Training.* (2007). Retrieved February 2007, from Wikipedia, the free encylopedia: http://en.wikipedia.org/wiki/Training

Training costs - Department of Education, Training and the Arts. (2005, May 3). Retrieved March 2007, from Queensland Government: http://www.trainandemploy.qld.gov.au/client/for\_business\_and\_employers/train\_your\_st aff/training\_costs.html

(2007). Training: Purpose, Aims, Outcomes, Methods. InterAct Networks.

*UMKC SIS-Glossary.* (2007). Retrieved February 2007, from UMKC: http://www.umkc.edu/registrar/sis/glossary.asp

Using PCs to Curb Liability: Vault People Management Career Information. (2000). Retrieved June 2007, from Vault: http://www.vault.com/nr/newsmain.jsp?nr\_page=3&ch\_id=402&article\_id=9665462&cat\_id=1102

# **APPENDICES**

# Appendix A Survey

Name	e:	Age:
Gend	ler:	
	Male Female	
Educ	ation Level:	
0 0 0	Some High School High School Graduate Professional/Tech School Some College College Graduate Graduate School Other	
Com	oany:	Position:
How	long have you been emplo	yed in your current position:
0	Less than 6 months 6 months - 1 year 1-3 years 3+ years	
Asse	ssment of knowledge trans	sfer into my working atmosphere
1.	My work performance has in position.	mproved through training I have received for this
	<ul> <li>Strongly Disagree</li> <li>Disagree</li> <li>Neutral</li> <li>Agree</li> <li>Strongly Agree</li> </ul>	
2.	The training programs I hav	re attended are useful for my professional success.
	<ul><li>Strongly Disagree</li><li>Disagree</li><li>Neutral</li></ul>	

- Agree
- Strongly Agree

#### **Motivation for training**

- 3. It is important to me to complete training programs successfully.
  - Strongly Disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly Agree
- 4. I tried my best in every training program that I attended.
  - Strongly Disagree
  - Disagree
  - Neutral
  - o Agree
  - Strongly Agree
- 5. I like to always learn something new.
  - Strongly Disagree
  - o Disagree
  - Neutral
  - Agree
  - Strongly Agree

#### **Training offers**

- 6. I have the choice to select among different training programs.
  - Strongly Disagree
  - Disagree
  - Neutral
  - o Agree
  - Strongly Agree
- 7. I was offered alternative delivery methods for my training.
  - o Strongly Disagree
  - Disagree
  - Neutral
  - o Agree
  - Strongly Agree

- 8. I received sufficient support during the selection of my training.
  - Strongly Disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly Agree
- 9. I discuss with my supervisor, which training program is most suitable for my needs/progress.
  - Strongly Disagree
  - o Disagree
  - Neutral
  - Agree
  - Strongly Agree

#### **Delivery method**

- 10. Most of the training courses I have completed were what form:
  - Lectures/seminars (non-hands on, speaker speaks, and/or limited input from you required)
  - Hands on (computer based, experimental, and/or user involvement)
  - Webinar (computer based, and/or limited input from you required)
  - On the Job (review and/or shadow other employees)

#### Preferences for diverse learning forms

- 11. I prefer to attend lectures and seminars.
  - Strongly Disagree
  - o Disagree
  - Neutral
  - o Agree
  - Strongly Agree
- 12. I learn better with the help of a computer (ex. computer based trainings, internet).
  - o Strongly Disagree
  - o Disagree
  - Neutral
  - o Agree
  - Strongly Agree

13.	i prei	er to read books and magazines.
	0 0 0 0	Strongly Disagree Disagree Neutral Agree Strongly Agree
14.	I learr	n better when I participate in working groups.
	0 0 0 0	Strongly Disagree Disagree Neutral Agree Strongly Agree
15.	_	more experience when I take over the work of my colleagues for a specific d (job rotation or job enrichment).
	0 0 0 0	Strongly Disagree Disagree Neutral Agree Strongly Agree
16.	I ofter	learn something new from my colleagues.
	0 0 0 0	Strongly Disagree Disagree Neutral Agree Strongly Agree
17.	I foun	d the information about the training programs I have take to be:
Chec	k all tha	at apply:
Up	ery Help to Dat compre	gumm

#### Length of Class Time

- 18. Most training classes I have attended were:
  - o 1-4 hours
  - o 4 hours-1 day
  - o 2 days
  - o 3 days
  - o 3+ days

#### Individualization of training

- 19. I received individual recommendations for specific training courses I should/have attended.
  - Strongly Disagree
  - Disagree
  - Neutral
  - o Agree
  - Strongly Agree
- 20. My personal needs have been taken into consideration for the selection of my training courses.
  - Strongly Disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly Agree
- 21. Having completed the training course, I received personal assistance for transferring the knowledge I obtained.
  - Strongly Disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly Agree

#### Transparency on the training activities

- 22. I have a good overview of the training programs that I have already attended or plan to attend in the future.
  - Strongly Disagree
  - Disagree

My superior has a good overview of the training programs that I have completed 23. and those that are planned for me in the future. Strongly Disagree 0 Disagree 0 Neutral 0 Agree 0 Strongly Agree 0 The Human Resource department has a good overview of the training programs 24. that I have completed and those that are planned for me in the future. 0 Strongly Disagree Disagree 0 Neutral 0 Agree 0 Strongly Agree Degree of satisfaction from the course trainers 25. My trainers were technically very knowledgeable. Strongly Disagree 0 Disagree 0 Neutral 0 Agree 0 Strongly Agree 26. My trainers dealt with my questions and problems. Strongly Disagree 0 Disagree 0 Neutral 0 Agree 0 Strongly Agree My teachers managed to descriptively present and mediate the contents of the 27. course. Strongly Disagree 0 Disagree 0 Neutral 0

Neutral

Strongly Agree

Agree

0

0

0

- Agree 0 Strongly Agree 0 My trainers used the available media properly. 28. Strongly Disagree 0 Disagree 0 Neutral 0 Agree 0 Strongly Agree 0 I could recommend my trainers to my colleagues. 29. Strongly Disagree 0 Disagree 0 Neutral 0 Agree 0 Strongly Agree 0 Miscellaneous How would you rate the training you have received? 30. Availability of classes a. Very Unsatisfied 0 Unsatisfied 0 Neutral 0 Satisfied 0 Very Satisfied Course content b. Very Unsatisfied 0 Unsatisfied 0 Neutral 0 Satisfied 0 Very Satisfied Course materials C.
  - Very Unsatisfied 0 Unsatisfied 0

    - Neutral 0
    - Satisfied 0
    - Very Satisfied 0

#### Frequency of classes d.

- Very Unsatisfied 0
- Unsatisfied 0
- Neutral 0
- Satisfied 0
- Very Satisfied 0

#### Quality of instructors e.

- Very Unsatisfied Unsatisfied 0
- 0
- Neutral 0
- Satisfied 0
- Very Satisfied

#### Timeliness of classes f.

- Very Unsatisfied Unsatisfied 0
- 0
- Neutral 0
- Satisfied 0
- Very Satisfied 0

#### Appendix B Survey Responses

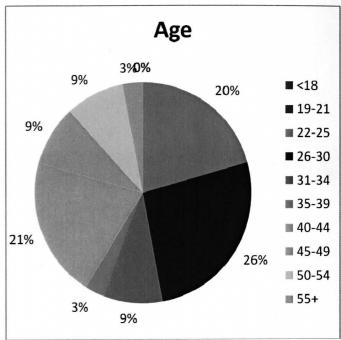
# \*Name, Company, and Position withheld for confidentiality purposes.

#### Responses

### **Graphical Representation**

#### Age:

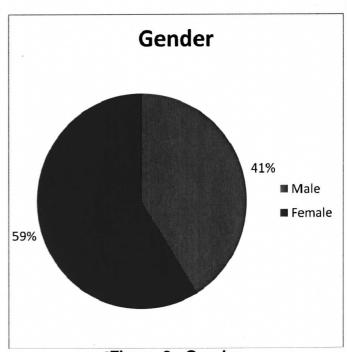
<18	0
19-21	0
22-25	7
26-30	9
31-34	3
35-39	1
40-44	7
45-49	3
50-54	3
55+	1



### [Figure 2. Age

#### Gender:

Male	14
Female	20

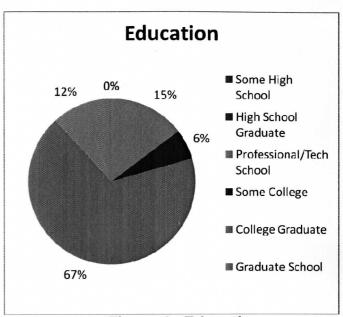


[Figure 3. Gender

#### **Graphical Representation**

#### **Education Level:**

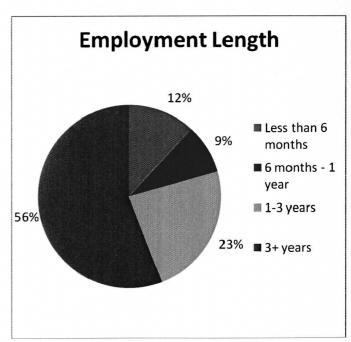
Some High School	0
High School Graduate	0
Professional/Tech School	5
Some College	2
College Graduate	23
Graduate School	4
Other	0



[Figure 4. Education

### How long have you been employed in your current position:

Less than 6 months	4
6 months - 1 year	3
1-3 years	8
3+ years	19



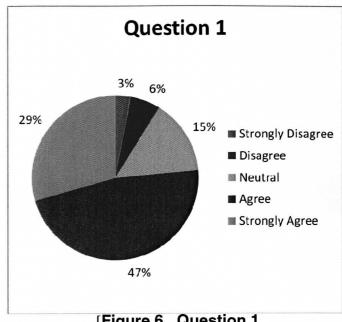
[Figure 5. Education Length

#### **Graphical Representation**

# Assessment of knowledge transfer into my working atmosphere

#### 1. My work performance has improved through training I have received for this position.

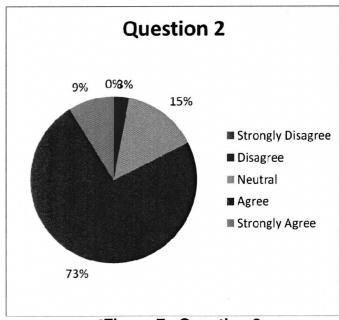
Strongly Disagree	1
Disagree	2
Neutral	5
Agree	16
Strongly Agree	10



[Figure 6. Question 1

# 2. The training programs I have attended are useful for my professional success.

Strongly Disagree	0
Disagree	1
Neutral	5
Agree	25
Strongly Agree	3



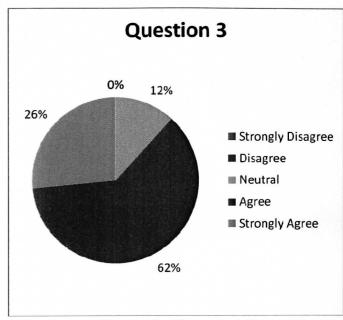
[Figure 7. Question 2

#### **Graphical Representation**

#### **Motivation for training**

#### 3. It is important to me to complete training programs successfully.

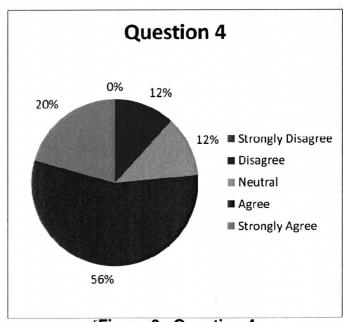
Strongly Disagree	0
Disagree	0
Neutral	4
Agree	21
Strongly Agree	9



[Figure 8. Question 3

### 4. I tried my best in every training program that I attended.

Strongly Disagree	0
Disagree	4
Neutral	4
Agree	19
Strongly Agree	7

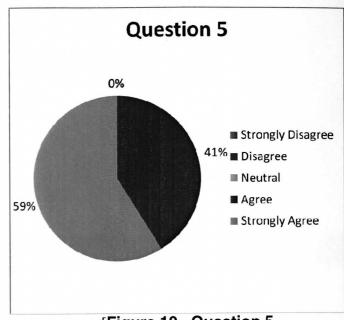


[Figure 9. Question 4

#### **Graphical Representation**

# 5. I like to always learn something new.

Strongly Disagree	0
Disagree	0
Neutral	0
Agree	14
Strongly Agree	20

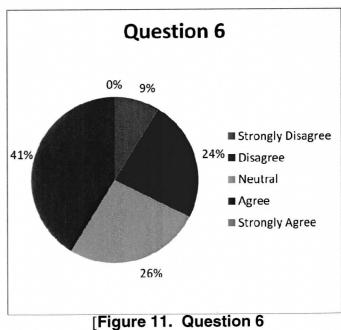


[Figure 10. Question 5

#### **Training offers**

# 6. I have the choice to select among different training programs.

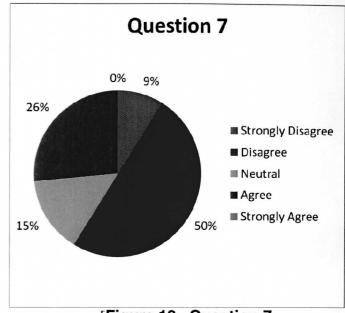
Strongly Disagree	3
Disagree	8
Neutral	9
Agree	14
Strongly Agree	0



#### **Graphical Representation**

#### 7. I was offered alternative delivery methods for my training.

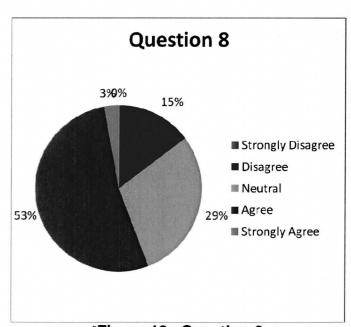
Strongly Disagree	3
Disagree	17
Neutral	5
Agree	9
Strongly Agree	0



[Figure 12. Question 7

### 8. I received sufficient support during the selection of my training.

Strongly Disagree	0
Disagree	5
Neutral	10
Agree	18
Strongly Agree	1

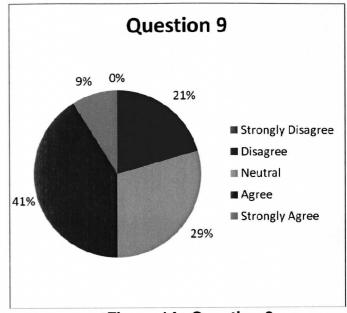


[Figure 13. Question 8

#### **Graphical Representation**

# 9. I discuss with my supervisor, which training program is most suitable for my needs/progress.

Strongly Disagree	0
Disagree	7
Neutral	10
Agree	14
Strongly Agree	3

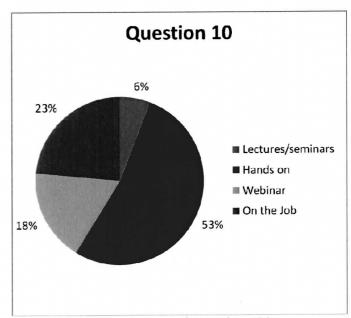


[Figure 14. Question 9

#### **Delivery method**

# 10. Most of the training courses I have completed were what form:

hands on, speaker speaks, and/or limited input from you required)	
Hands on (computer 1 based, experimental, and/or user involvement)	8
Webinar (computer 6 based, and/or limited input from you required)	6
On the Job (review and/or shadow other employees)	3



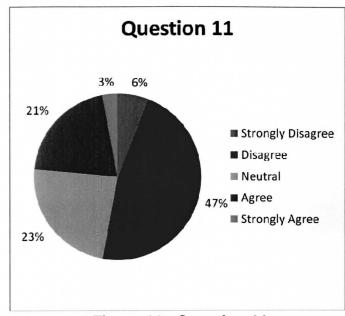
[Figure 15. Question 10

#### **Graphical Representation**

#### Preferences for diverse learning forms

#### 11. I prefer to attend lectures and seminars.

Strongly Disagree	2
Disagree	16
Neutral	8
Agree	7
Strongly Agree	1



[Figure 16. Question 11

# 12. I learn better with the help of a computer (ex. computer based trainings, internet).

Strongly Disagree	0
Disagree	1
Neutral	4
Agree	18
Strongly Agree	11

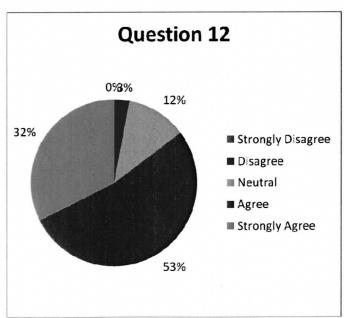
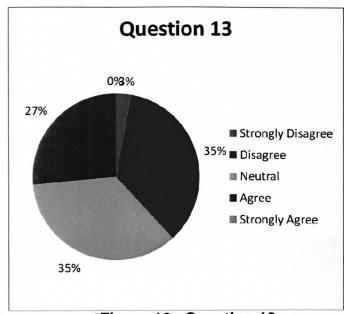


Figure 17. Question 12

#### **Graphical Representation**

#### 13. I prefer to read books and magazines.

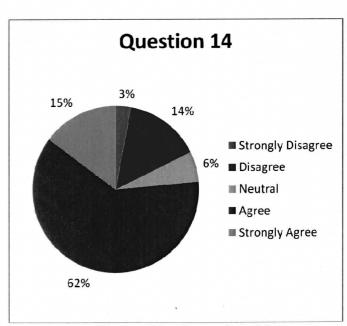
Strongly Disagree	1
Disagree	12
Neutral	12
Agree	9
Strongly Agree	0



[Figure 18. Question 13

#### 14. I learn better when I participate in working groups.

Strongly Disagree	1
Disagree	5
Neutral	2
Agree	21
Strongly Agree	5

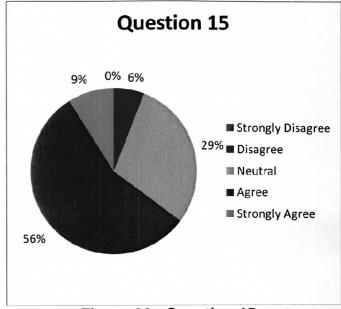


[Figure 19. Question 14

#### **Graphical Representation**

# 15. I gain more experience when I take over the work of my colleagues for a specific period (job rotation or job enrichment).

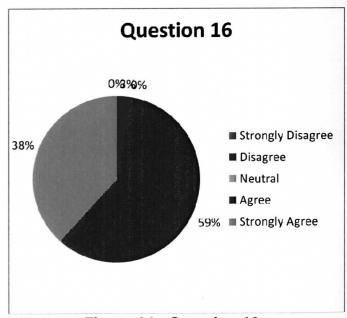
Strongly Disagree	0
Disagree	2
Neutral	10
Agree	19
Strongly Agree	3



[Figure 20. Question 15

#### 16. I often learn something new from my colleagues.

Strongly Disagree	0
Disagree	1
Neutral	0
Agree	20
Strongly Agree	13

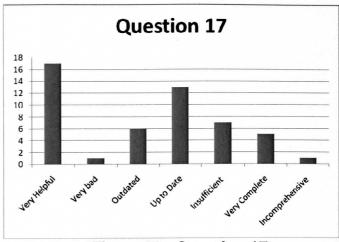


[Figure 21. Question 16

#### **Graphical Representation**

### 17. I found the information about the training programs I have take to be:

Check all that apply:	
Very Helpful	17
Very bad	1
Outdated	6
Up to Date	13
Insufficient	7
Very Complete	4
Incomprehensive	1

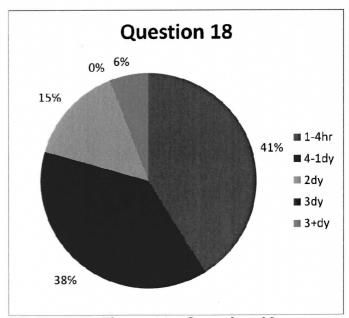


[Figure 22. Question 17

#### **Length of Class Time**

#### 18. Most training classes I have attended were:

1-4 hours	14
4 hours-1 day	13
2 days	5
3 days	0
3+ days	2



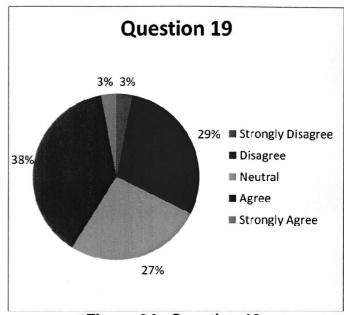
[Figure 23. Question 18

# **Graphical Representation**

#### **Individualization of training**

# 19. I received individual recommendations for specific training courses I should/have attended.

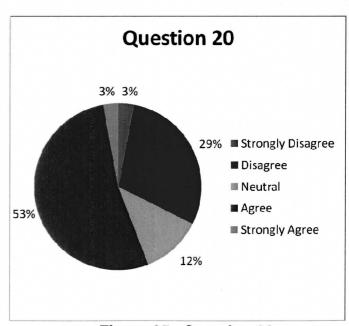
Strongly Disagree	1
Disagree	10
Neutral	9
Agree	13
Strongly Agree	1



[Figure 24. Question 19

# 20. My personal needs have been taken into consideration for the selection of my training courses.

Strongly Disagree	1
Disagree	10
Neutral	4
Agree	18
Strongly Agree	1



[Figure 25. Question 20

#### **Graphical Representation**

# 21. Having completed the training course, I received personal assistance for transferring the knowledge I obtained.

Strongly Disagree	1
Disagree	14
Neutral	6
Agree	12
Strongly Agree	1

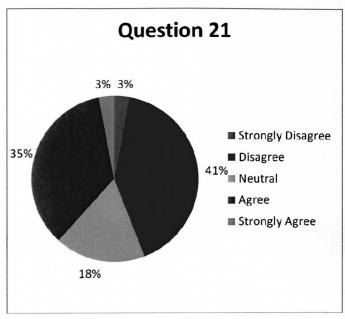
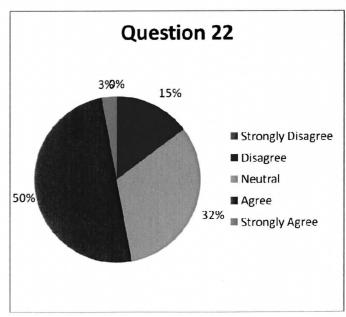


Figure 26. Question 21

#### Transparency on the training activities

# 22. I have a good overview of the training programs that I have already attended or plan to attend in the future.

Strongly Disagree	0
Disagree	5
Neutral	11
Agree	17
Strongly Agree	1

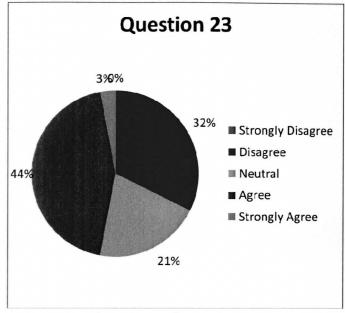


[Figure 27. Question 22

### **Graphical Representation**

# 23. My superior has a good overview of the training programs that I have completed and those that are planned for me in the future.

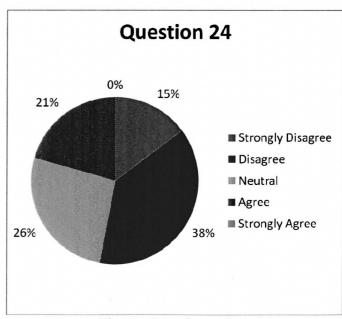
Strongly Disagree	. 0
Disagree	11
Neutral	7
Agree	15
Strongly Agree	1



[Figure 28. Question 23

# 24. The Human Resource department has a good overview of the training programs that I have completed and those that are planned for me in the future.

Strongly Disagree	5
Disagree	13
Neutral	9
Agree	7
Strongly Agree	0



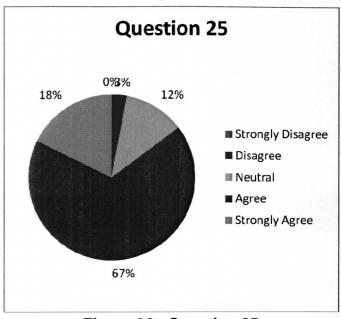
[Figure 29. Question 24

#### **Graphical Representation**

#### Degree of satisfaction from the course trainers

#### 25. My trainers were technically very knowledgeable.

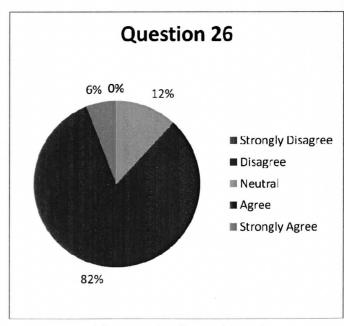
Strongly Disagree	0
Disagree	1
Neutral	4
Agree	23
Strongly Agree	6



[Figure 30. Question 25

#### 26. My trainers dealt with my questions and problems.

Strongly Disagree	0
Disagree	0
Neutral	4
Agree	28
Strongly Agree	2

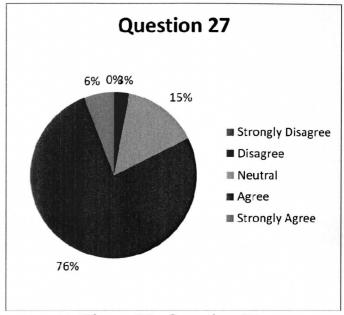


[Figure 31. Question 26

#### **Graphical Representation**

# 27. My teachers managed to descriptively present and mediate the contents of the course.

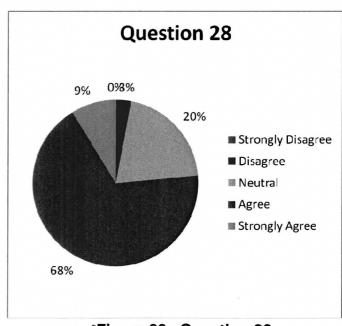
Strongly Disagree	0
Disagree	1
Neutral	4
Agree	26
Strongly Agree	2



[Figure 32. Question 27

#### 28. My trainers used the available media properly.

Strongly Disagree	0
Disagree	1
Neutral	7
Agree	23
Strongly Agree	3

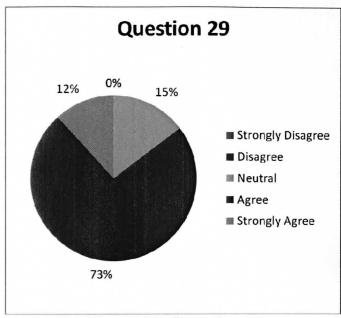


[Figure 33. Question 28

#### **Graphical Representation**

#### 29. I could recommend my trainers to my colleagues.

Strongly Disagree	0
Disagree	0
Neutral	5
Agree	25
Strongly Agree	4



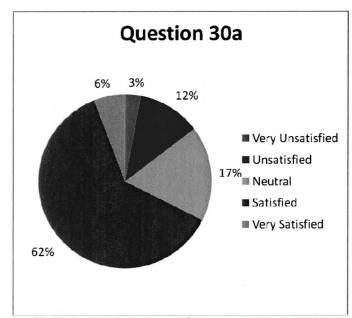
[Figure 34. Question 29

#### **Miscellaneous**

# 30. How would you rate the training you have received?

# a. Availability of classes

Very Unsatisfied	1
Unsatisfied	4
Neutral	6
Satisfied	21
Very Satisfied	2

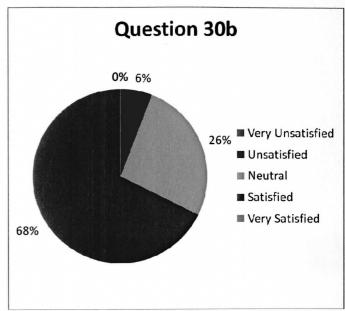


[Figure 35. Question 30a

### **Graphical Representation**

#### b. Course content

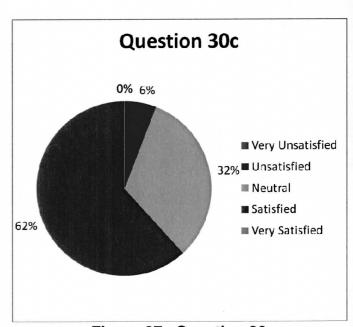
Very Unsatisfied	0
Unsatisfied	2
Neutral	9
Satisfied	23
Very Satisfied	0



[Figure 36. Question 30b

#### c. Course materials

Very Unsatisfied	0
Unsatisfied	2
Neutral	11
Satisfied	21
Very Satisfied	0

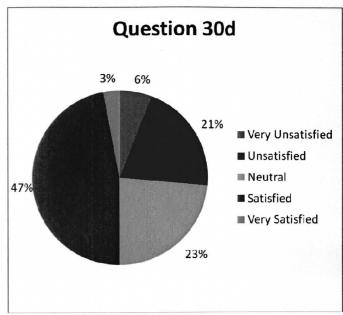


[Figure 37. Question 30c

### **Graphical Representation**

### d. Frequency of classes

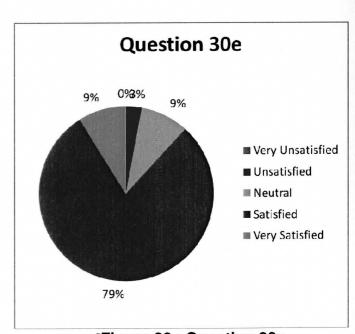
Very Unsatisfied	2
Unsatisfied	7
Neutral	8
Satisfied	16
Very Satisfied	1



[Figure 38. Question 30d

# e. Quality of instructors

Very Unsatisfied	0
Unsatisfied	1
Neutral	3
Satisfied	27
Very Satisfied	3

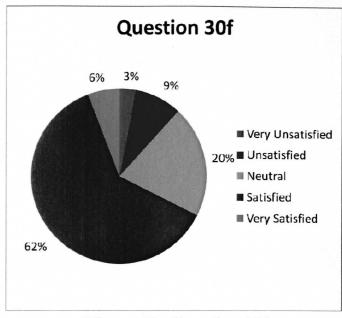


[Figure 39. Question 30e

### **Graphical Representation**

#### f. Timeliness of classes

Very Unsatisfied	1
Unsatisfied	3
Neutral	7
Satisfied	21
Very Satisfied	2



[Figure 40. Question 30f