THE EFFECTIVENESS OF SYSTEMATIC DESIGN PROCESS ON EFFECTIVE TRAINING PRACTICES AT TELEKOM RESEARCH & DEVELOPMENT

AMIRUL FADZLI BIN MOKHTAR

This report is submitted to fulfill the requirement for the award of the degree of Bachelor of Technology Management with Honors (Technology Innovation)

> Faculty of Technology Management and Technopreneurship Universiti Teknikal Malaysia Melaka

> > JUNE 2014

C Universiti Teknikal Malaysia Melaka

"Saya akui bahawa telah membaca karya ini dan pada pandangan saya karya ini adalah memadai dari segi skop dan kualiti untuk tujuan penganugerahan Ijazah Sarjana Muda Pengurusan Teknologi dengan Kepujian (Inovasi Teknologi)".

Tandatangan	:
Nama Penyelia	:
Tarikh	:
Tandatangan	:
Nama Pemeriksa	:
Tarikh	:

C Universiti Teknikal Malaysia Melaka

Hereby, I acknowledge that this report is my own work except for citations stated in the references

Signature: Name: Date:

C Universiti Teknikal Malaysia Melaka

DEDICATION

"To my beloved father & mother..."

C Universiti Teknikal Malaysia Melaka

ACKNOWLEDGEMENT

Foremost, I would like to express my sincere gratitude to my supervisor Prof. Dr Khairul Baharein Mohd Noor for the continuous support of my undergraduate project, for his patience, motivation, enthusiasm, and immense knowledge. His guidance helped me in all the time of research and writing of this research. I could not have imagined having a better advisor and mentor for my project.

Besides my supervisor, I would like to thank my research panel: Mdm. Edna Buyong for her encouragement, insightful comments, and questions.

I thank my fellow supervisory group: Hazirah Mohd Ali Piah, Maizurah Mahmood, Raja Nor Azrinie, Farah Wahiedah and Ahmad Nasharatul Na'im for the stimulating discussions, for the sleepless nights we were working together before deadlines, and for all the fun we have had in the last four years.

Last but not the least; I would like to thank my family: my parents Mokhtar Abd Rahman and Mariam Awang for giving birth to me at the first place and supporting me spiritually throughout my life.

ABSTRACT

Training and development is the heart of a continuous effort designed to improve employee competency and organizational performance. The rapid changing world and globalization have influence the need of training in organization. According to previous researches, effective training practices are influenced by systematic design process. The systematic design process is the elements that used to design an effective training. In that case, this research is focus on the effect of systematic design process on effective training practices at TM R&D. The researcher use quantitative technique to conduct this research as well as questionnaire survey as the research strategy and distributed 60 questionnaires with only 50 were returned. The data collected were analyzed with correlation coefficient and reliability test. From the result, the researcher has ranked the most to the least influential element to fulfill the research objective where employee readiness is the most influential element for effective training practices which were employee readiness. The researcher then fulfill the third research objective by providing recommendations that can be made at TM R&D This research may become an academic reference for further research in the future.

ABSTRAK

Latihan dan pembangunan adalah hati daripada usaha berterusan yang direka untuk meningkatkan kecekapan pekerja dan prestasi organisasi. Dunia arus perubahan yang cepat dan globalisasi telah mempengaruhi keperluan latihan dalam organisasi. Menurut kajian terdahulu, amalan latihan yang berkesan dipengaruhi oleh proses reka bentuk yang sistematik. Proses reka bentuk sistematik adalah unsur-unsur yang digunakan untuk mereka bentuk latihan yang berkesan. Dalam kes itu, kajian ini memberi tumpuan kepada kesan proses reka bentuk sistematik mengenai amalan latihan yang berkesan di TM R & D. Penyelidik menggunakan teknik kuantitatif untuk menjalankan kajian ini dan juga soal selidik sebagai strategi penyelidikan dan diedarkan 60 soal selidik dengan hanya 50 telah dikembalikan. Data yang dikumpul telah dianalisis dengan pekali korelasi dan ujian kebolehpercayaan. Dari keputusan itu, penyelidik telah meletakkan kedudukan unsur yang paling yang berpengaruh kepada kurang berpengaruh untuk mencapai objektif kajian di mana kesediaan pekerja adalah elemen yang paling berpengaruh. Pengkaji mencapai objektif kajian yang ketiga dengan menyediakan cadangan yang boleh dibuat di TM R & D Kajian ini boleh menjadi rujukan akademik untuk penyelidikan pada masa akan datang.

TABLE OF CONTENT

		Content	Page
Declaration	1		ii
Dedication	•••••		iii
Acknowled	geme	nt	iv
Abstract	•••••		v
Table of Co	onten	t	vii
List of Tab	les		ix
List of Figu	ires		X
Nomenclat	ure		xi
Chapter 1	Intr	oduction	1
	1.1	Background	1
	1.2	Problem Statement	2
	1.3	Research Objectives	3
	1.4	Research Questions	3
	1.5	Scope and Limitation	3
	1.6	Significance of the Research	4
Chapter 2	Lite	rature Review	5
	2.1	Definition	5
	2.2	The Role of Systematic Design	
		Process	6
	2.3	The Relationship of Training and Practices	7
	2.4	Previous Research	8
	2.5	Research Framework	10

Chapter 3	Res	earch Methodology	14
	3.1	Introduction	14
	3.2	Research Design	14
	3.3	Methodology	15
	3.4	Data Sources	15
	3.5	Sampling Size	15
	3.6	Data Collection Method and Analysis	16
	3.7	Summary	16
Chapter 4	Res	ult and Discussion	17
	4.1	Introduction	17
	4.2	Reliability Test	18
	4.3	Respondents Profile	19
	4.3	The Pearson Correlation Coefficients	23
Chapter 5	Con	clusion and Recommendation	26
	5.1	Introduction	26
	5.2	Summary of Research Finding	27
	5.3	Recommendation	30
	5.4	Conclusion	32
References	• • • • • • • •		33
Appendices	š		36

LIST OF TABLES

	Tables	Page
Chapter 1	Introduction	
	Table 1.1	2
Chapter 3	Research Methodology	
	Table 3.1	15
	Table 3.2	16
Chapter 4	Result and Discussion	
	Table 4.1	18
	Table 4.2	19
	Table 4.3	20
	Table 4.4	21
	Table 4.5	22
	Table 4.6	23
	Table 4.7	23
	Table 4.8	24
	Table 4.9	24
	Table 4.10	25
Chapter 5	Conclusion and Recommendations	
	Table 5.1	29

LIST OF FIGURES

	Figures	Page
Chapter 2	Literature Review	
	Figure 2.1	13
Chapter 4	Result and Discussion	
	Figure 4.1	19
	Figure 4.2	20
	Figure 4.3	21
	Figure 4.4	22

Х

NOMENCLATURE

SSPS	Statistical Software Package for Social Science
ТМ	Telekom Malaysia Berhad
TM R&D	Telekom Research & Development Sdn. Bhd
T&D	Training and development
UTeM	Universiti Teknikal Malaysia Melaka

CHAPTER 1

INTRODUCTION

1.1 Background

Customer service, productivity, safety, employee retention and new technology are examples of issues affecting companies in all industries and sizes and influencing training practices.

Training provides employees with the knowledge and skills to perform more effectively. This allows them to meet current job requirements or prepares them to meet the inventible changes that occur in their jobs. However, training is only an opportunity for learning. What is learned depends on many factors such as the design and implementation of training, the learning style of the trainees and the organization's learning climate (Blanchard & Thacker, 2010).

For information, this research was not about evaluation of a training program. The data were collected from employees' experiences to effective training practices at their workplace.

1.2 Problem Statement

Table 1.1: Forces Influencing Work and Learning

Sources: Noe (2013) p.13

Economic cycles
Globalization
Increased value placed on intangible assets and human capital
Focus on link business strategy
Changing demographics and diversity of the workforce
Talent management
Customer service and quality emphasis
New technology
High-performance work systems

The above table shows the forces that are influencing working and learning. These forces are affecting individuals, communities, businesses and societies. To survive, companies must address these forces with training.

As company grow and recognize the important role of training for business success, they form entire training function. The training function may include instructional designers, instructors, technical training and experts in instructional technology.

To forming the training functions, training became the most significant investment in a company. Unfortunately, a lot of money is wasted on infective training (Maimunah Aminuddin, 2008).

To achieve effective training, company was required to stay up-to-date on current research and training practices. One of the factors of effective training practices is systematic design process of effective training.

1.3 Research Objectives

- i. To determine whether the elements of systematic design process are in place in organization for effective training practices.
- ii. To identify the most influential systematic design process element towards effective training practices
- iii. To provide recommendation for effective training improvement at TM R&D

1.4 Research Questions

- i. Are the elements of systematic design process being practiced for effective training practices in the organization?
- ii. What is the most influential element of systematic design process toward effective training practices?
- iii. What are the improvements can be made for effective training practices at TM R&D?

1.5 Scope and Limitation

The research is focus on the effect of training design process on training practices at Telekom Research & Development, Cyberjaya.

The limitation of the research is time. The researcher is given six months only to accomplish this research. Not only that, the research studies on TM R&D employees only.

1.6 Significance of the Research

The research is a platform for the researcher to continue study at postgraduate degree in the future.

This research can be an academic reference for further researches in the future. Not only that, the industry may use this research as their reference for continuous improvement of their training program.

CHAPTER 2

LITERATURE REVIEW

2.1 Definition and Concept of Training

Training and development is the heart of a continuous effort designed to improve employee competency and organizational performance. Training provides learners with the knowledge and skill needed for their presentation jobs (Mondy, 2008).

In other point of view, training is an effective tool for improving performance, but it must be conducted with careful attention to the needs of learners, the context in which learners perform and current evidence about what makes training effective (FHI 360, 2012).

Peter (1987) listed training as one of the key areas to be emphasized if an organization is to survive in the changing world. He stated that the innovation prescriptions were clear that everyone must innovate and be prepared to contribute ideas and to work together with less supervision.

The rapid paces of globalization and technological change today, all organizations have to continually train their workforce to keep pace with their competition today. The human resource department in organizations is becoming a strategic partner, being a purveyor of the most important asset a company controls-the human asset (Ooi, Lee and Lo, 2007).

According to IOMA-Staff (2003), the human-asset cost is currently a major portion of the expenses faced by organizations. Shareholders and management are constantly looking for ways and means to improve the bottom line of the organization, and training is one way in which organizations can undertake more innovative and involved methods in meeting their changing performance needs.

To show the importance of training, Koehorst and Verhoeven (1986) who did a study on the effectiveness of training in the Netherlands listed twenty indicators of the benefits of training as follows:

- a. Higher turnover/profit
- b. Improved quality of service
- c. Increased safety
- d. Better company image
- e. More efficient use of means of production
- f. Higher overall level of staff education
- g. High number of internal transfers
- h. More efficiency/productivity
- i. Equal opportunity to staff

2.2 The Role of Systematic Design Process

Sloman (1994) stated that systematic design process was depending on a series of logical steps that training normally involved. The design process assumed an organizational environment based on slow change, hierarchy lines of authority and clear requirements. It was logical a series of steps centered on the use of an objective training need analysis. Normally, it would take the shape of an empirical exercise to identify current needs but bringing in the organizational objective for consideration. It provided framework within which trainer could ensure a thorough and professional job (Price, 2007).

2.3 The Relationship of Training and Practice

Lussier & Shadrick (2006) explained that training and practice appeared to be similar activities in that they usually involve task performance under real or simulated conditions and because both are significant components in gaining proficiency. It is usually those two activities that are not clearly differentiated and those two terms that are normally used almost interchangeably.

The best example was through a study done by Brinkerhoff, (2006). In the evaluation study of a marketing skills training program in a large Fortune 100 company showed that only a disappointing 17 percent of all program participants had applied their skills in their workplaces. This was despite the facts that: all of the participants were in job roles where application of marketing skills were needed to execute a new corporate strategy; and more than 80 percent of the participants had mastered, according to the performance test given at the conclusion of training, the skills needed to prepare a complete marketing plan.

2.4 Previous Research

The present study found out many factors which affect training effectiveness in both ways positively and negatively. It also describes the models of measuring training effectiveness explained by many researchers and thus the study will help the managers in measuring the training effectiveness in their organizations. It will also help in solving training problems and implementing training programs successfully. The study also highlights the value of training and development in organizational improvement and summarizes previous investigations in order to enlighten the researchers to the state of current research and find out the gap between existing researches. So as a whole the study gives emphasis on factors affecting training effectiveness and how training can be made more effective for which the authors collected reviews on training effectiveness, its implication and its importance on the basis of which the future research directions have been endeavored.

In the real world, there are many factors that influence the effectiveness of training and development in an organization. One similar factor i.e. the human resource policy of training and development has been identified by Haywood (1992). He mentioned that too many training programs place emphasis on ease and the purpose behind the design of programs namely learning, skill development and behavioral change has defeat the original purpose and goals of training are lost. Everything is affected by its surrounding weather directly or indirectly and similarly training effectiveness is also affected by many factors

Transfer of training is the main part in training effectiveness program. It is found that transfer of training generally refers to the use of trained knowledge and skills back on the job. Baldwin & Magjuka (1988) mentioned that for transfer to occur, "learned behavior must be generalized to the job context and maintained over a period of time on the job".

Meanwhile, Saks & Haccoun (2007) views training transfer is the generalization of knowledge and skills learned in training on the job and the maintenance of acquired knowledge and skills over time. According to the transfer of training framework by Saks & Haccoun (2007), the transfer of training activities could be segregated into three phases which is before, during, and after training to facilitate and improve the transfer of training. The trainer should conduct follow-up or booster sessions following a training program.

Driskell (2011) concluded in his study that type of training implemented, training content and trainee expertise also affect the training outcomes. The success of a training program has always depended on how the training was given, what was the content and who was the trainer.

2.5 Research Framework

Noe (2013) defines training design process as a systematic approach for developing training program. There are six steps in the process to ensure a training to be effective:

1. Need assessment

The first step in the instructional design process is need assessment. The step typically involves organizational analysis, person analysis and task analysis. Organizational analysis involves determining the business appropriateness of training, given the company's business strategy, it resources available for training and supports with managers and peers for training activities. Meanwhile, person analysis helps identify employees who need training and task analysis includes identifying the important tasks and knowledge, skill and behaviors that need to be emphasized in training for employees to complete their task.

2. Employees' readiness for training

The second step in the training design process is to evaluate whether employees are motivated and ready to learn. Motivation to learn is the desire of the trainee to learn the content of the training program. That desire includes having energy to learn directing energy towards learning and being able to exert effort to learn. Various research studies have shown that motivation is related to knowledge gain, behavior change or skill acquisition in training programs (Baldwin et. al, 1991). Motivation influences mastery of all types of training content, including knowledge, behavior and skills.

3. Learning environment

Educational and industrial psychologists have identified several conditions under which employees learn best:

- a. Need to know why they should learn
- b. Meaningful training content
- c. Opportunities to practice
- d. Feedback
- e. Observe, experience and interact with training content, other learners and the instructor
- f. Good program coordination and administration
- g. Commit training content to memory
- 4. Transfer of learning

Transfer of learning refers to on-the-job use of knowledge, skills and behaviors learned in training. Transfer of training is influenced by climate of transfer, manager support, peer support, opportunity to use learned capabilities, technology support and self-management skills.

5. Training methods

A number of different methods can help employees acquire new knowledge, skills and behaviors. The instructor-led classroom still remains the most frequently used training methods. However, it is important to note that the use of online learning, mobile learning and social networking for training continues to increase. Social media are reshaping learning by allowing employees to access and control their learning through relationships and collaborations with others. Regardless of whether the training method is traditional or technology based, for training to be effective it needs to be based on the training design model.

6. Training evaluation

Dessler (2009) listed Kirkpatrick's four basic categories of training outcomes that can be measured:

a. Reaction

Evaluate trainees' reactions to the program.

b. Learning

Test the trainees to determine whether they learned the principles, skills and facts they were supposed to learn.

c. Behavior

Ask what trainees' behavior on the job changed because of the training program.

d. Results

This is the most important element in evaluation which trainees are asked what the final results achieved in terms of the training objectives previous set.