EVALUATING THE EFFECTIVENESS OF A CONCEPTUAL SKILL TRAINING: A QUASI-EXPERIMENTAL APPROACH

by

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TABLE OF CONTENTS

CHAPTER THREE: METHODOLOGY

CHAPTER FOUR: RESULTS

CHAPTER FIVE: DISCUSSION AND CONCLUSION

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Menilai Keberkesanan Latihan Kemahiran Konseptual:
Satu Pendekatan Kuasi-Eksperimental

ABSTRAK

Latihan dan pembangunan dianggap sebagai pelaburan yang mahal bagi sesebuah syarikat dan sering diabaikan pada masa kemelesetan ekonomi. Salah satu daripada alasan-alasan untuk tidak menitikberatkan latihan dan perkembangan modal insan ialah sebab nilai dan sumbangan latihan dan perkembangan tidak dapat ditetapkan dengan berkesan. Walaupun banyak jenis alat pengukuran digunakan untuk menilai latihan, cara-cara yang digunakan masa kini tidak dapat memberi jawapan yang memadai untuk semua jenis latihan, lebih-lebih lagi untuk program perkembangan pengurusan. Walaupun penyelesaian masalah dan kemahiran membuat keputusan (kemahiran konseptual) merupakan salah satu kecekapan utama untuk pihak pengurusan, di Malaysia, tidak terdapat sebarang penyelidikan yang dapat memberi alat pengukuran yang memadai untuk menilai keberkesanan jenis latihan tersebut. Penyelidikan ini menggunakan rekabentuk kuasi-eksperimen 4-kumpulan Solomon yang diubahsuai sebagai alat penilaian asas untuk menilai tahap keberkesanan sesuatu program latihan kemahiran konseptual. Peserta-peserta untuk kuasi-eksperimen tersebut diambil daripada sektor swasta dan termasuk pihak pengurusan pertengahan dan atasan daripada industri pengilangan serta industri perkhidmatan. Penyelidikan tersebut merupakan penyelidikan ‘longitudinal’ sebab mengambil masa selama tiga bulan.

Keputusan yang diperolehi memberi gambaran bahawa kumpulan yang dilatih dalam kemahiran konseptual tertentu telah menunjukkan kemajuan yang mendadak dalam penyerapan pengetahuan serta didapati bahawa apa yang

telah dipelajari boleh diaplikasikan dalam tempat kerja. Keputusan yang diperolehi daripada penyelidikan tersebut menyokong hujah-hujah bahawa pemberian latihan kemahiran konseptual tertentu boleh mengakibatkan kerberkesanan dalam latihan, walaupun setelah sesuatu masa telah berlalu. Keputusan yang didapati penting daripada segi teori kerana dapat memberi pandangan berkenaan dengan cara-cara menilai keberkesanan kemahiran konseptual tertentu yang sejauh ini tidak diselidiki oleh penyelidik-penyelidik yang lain di Malaysia. Untuk organisasi, keputusan daripada penyelidikan ini memberi satu alat pengukuran yang dapat menolong syarikat untuk menilai program perkembangan pengurusan yang bernilai tinggi dari segi kewangan. Ini adalah sebab rekabentuk kuasi-eksperimen lebih berkesan untuk menunjukkan bahawa sebarang perubahan dalam pengetahuan, kemahiran dan sikap adalah akibat daripada sesuatu latihan, and justeru itu, memberi bukti kepada organisasi bahawa latihan dan perkembangan memang bernilai.

Evaluating the Effectiveness of A Conceptual Skill Training: A Quasi-Experimental Approach

ABSTRACT

Training and development are viewed as expensive investments for a business organization and is often neglected during recession. One of the frequently cited reasons for not focusing on training and development was because the value and contribution could not be effectively ascertained. Although training evaluation tools and instruments abound, existing methodologies do not provide adequate answers for all types of training, more so for management development programs. Even though problem solving and decision-making skill (conceptual skill) is considered to be a key area of managerial competence, there has not been any literature in Malaysia to provide an adequate tool for assessing the effectiveness of such a program. A quasi-experimental design using Solomon's 4-group experimental design as the basic research instrument was developed to assess the extent of effectiveness of a conceptual skill training program. The participants for the quasi-experiment were drawn from the private sector, encompassing middle and senior level managers from both the manufacturing and service industries. The study was longitudinal as it was conducted over a period of three months.

The results indicated that the group that had undergone the specific conceptual skill training had shown marked improvement in terms of acquisition of knowledge and had also implied that what was learnt was able to be applied at work. The findings of the study supported the contention that training intervention in a specific conceptual skill will lead to training effectiveness, even after a period of time. The findings are of importance theoretically as it provided

insights into methods for evaluating the training effectiveness of a specific conceptual skill, which had thus far been shunned by researchers. For organizations, the findings of the study will help to provide an invaluable tool to assist organizations in evaluating management development programs of high monetary value. This is because the quasi-experimental design is better able to attribute changes in knowledge, skill, and behavior to specific training interventions, thereby providing evidence to organizations with regards to the value of training and development.

CHAPTER 1

INTRODUCTION

1.0 Introduction

Organizations in both the private and public sectors, regardless of types or nature of organization, agree that training and development is essential to the growth and development of the business (Noe, 2002). Human resource management (HRM) literature (Beardwell & Holden, 2003; Cascio, 1998; Cherrington, 1995; Dessler, 2005; Ivancevich, 2003; Mondy & Noe, 2005; Noe, Hollenbeck, Gerhardt & Wright, 2006; Torrington & Hall, 2000; Yong, 2003), viewed training and development as an important activity that contributes to an organization's overall effectiveness in human resources management and that training and development is required to build and sustain an organization's competitive advantage via skills and knowledge enhancement.

In Malaysia, allocation for training and development made by the government had increased from 223.7 million for the 7th Malaysia Plan to 400 million for the 8th Malaysia Plan (Hashim, 2002), thereby indicating the importance of training and development of human resources in Malaysia.

Cheng and Ho (2001) however, stated that training and development is an expensive investment. One of the oft cited reasons for considering training and development as an unnecessary and expensive expenditure is that most of the organizations are unsure of the contributions of training and development toward the organization's overall performance due to lack of evaluation (Bramley & Kitson, 1994). The World Bank (2000) case study on Malaysia's telecommunication industry indicated that for Malaysia as a whole, the cost-remuneration ratio on training between the years 1998-1999

was only 2%. This indicated that training and development expense in general is still considered to be relatively low in Malaysia despite the government's efforts to focus on training and development activities.

Although training evaluation models abound (Cohen, 2005; Hamblin, 1974; Holton III, 2005; Kirkpatrick, 1998; McCarthy & Garavan, 2001; Warr, Bird, & Rackham, 1970), organizations are not adept at utilizing the models to evaluate training and development programs as training evaluation generally involve both objective and subjective measures. Furthermore, most organizations are uncertain as to how training evaluation could provide adequate information to attribute the training to subsequent transfer of training back at the workplace (Cheng & Ho, 2001). Therefore, it is important to establish the link between training, training evaluation and training effectiveness.

1.1 Importance of Training Evaluation

According to Rae (1991), though many organizations are concerned with the contribution of training to organization performance, the feasibility of such validation and evaluation was not consistently ascertained. One of the reasons provided by Huang (2001) is that training evaluation often focused only on the quantity of training provided and not the quality of training.

It has been found that in many areas of training and development, evaluation is difficult, especially management level training or human relations training, as the outcomes are not quantitatively defined (Rae, 1991). Mulder (2001) concurred that at times, the standards for the required level of quality are not adequately defined – other than using superficial scales in an

attempt at quantification – which then raises the question of validity and reliability of the training evaluation measures. Torrington and Hall (2000) thus stated that though training evaluation tended to be nebulous and unsatisfactory, there is still a need for organizations to demonstrate that the training conducted was of value to the organization.

However, Phillips (1991) discovered that a majority of Human Resource Development (HRD) specialists are still reluctant to evaluate the effectiveness of training programs conducted. One of the reasons is that organizations were not able to find a tool for measurement that is both parsimonious and results-oriented (Huang, 2001).

Huang (2001) thus suggested that perhaps there may not be a strong link between training evaluation and training effectiveness though companies that evaluate training programs are more likely to find a greater degree of effectiveness from the trainings provided by virtue of the fact that there was evaluation. The above statement though seems contradictory in nature, has highlighted the difficulties and dilemma faced by organizations in the evaluation of training effectiveness.

1.2 Training Effectiveness

Conducting a lot of training does not mean that the training programs were effective if there were no improvements in productivity. To ascertain the effectiveness of training, a training evaluation is required (Bramley & Kitson, 1994; Cheng and Ho, 2001; Rae, 1991; Tennant, Boonkrong, & Roberts, 2002). From the results of the training evaluation, the organization will then be able to ascertain more accurately whether the training conducted had

been effective. This is because training evaluations are conducted using measurable criteria (Grensing-Pophal, 2004). Unfortunately, most organizations do not conduct comprehensive training evaluations.

According to Bedinham (1998b), even though most managers are comfortable with the evaluation of technical training beyond the initial end of course level, these managers will not be comfortable at the thought of evaluating the effectiveness of non-technical training, such as interpersonal or conceptual skills as these skills are deemed to be non-quantifiable. Broad and Newstrom (2001) however, stated that for training to be effective, the skills and knowledge learnt during training must be transferred to the job.

Salas, Burke, Bowers and Wilson (2001) thus asserted that training evaluation helps to determine whether the training has been effectively transferred on the job. This was emphasized by Grensing-Pophal (2004) that it is important to assess training effectiveness and that training effectiveness should be tied in with actual work performance. However, in order to stimulate and encourage the application of learned skills, incentives must be available to encourage these trainees to adopt the newly learned skills, knowledge and attitude (Dessler, 2005). Furthermore, the organization climate must be supportive and conducive to the eventual transfer of knowledge and skills obtained (Tracey & Tews, 2005).

1.3 Factors Affecting Training Effectiveness

Tennant et al. (2002) found that immediate superior support were strongly correlated with training effectiveness, thereby indicating that the immediate superior have important roles to play in determining whether

training programs are effective. Chella (2006) further affirmed that immediate superior's feedback and support would help the participant to harness and apply the skills learnt. In the Malaysian context, correlation studies on training effectiveness have found that a lack of immediate superior support have impeded an organization's training effectiveness (David, 1997; Karuppaiya, 1996; Pau, 2001; Tee, 2005).

However, to further explicate the effectiveness of training, it is critical to identify and measure the impacts of individual as well as organizational factors that affect training outcomes including learning and training transfer (Baldwin & Ford, 1988; Mathieu, Martineau, & Tannenbaum, 1993; Tannenbaum & Yukl, 1992).

Bandura (2000) stated that self-efficacy will lead the trainees to believe that they are better able to perform the tasks after training but there was no mention of the effect of self-efficacy on pre-training disposition to learn. Yi and Davis (2003) on the other hand, in a study on training interventions had actually controlled for learning motivation and pre-training self-efficacy, thereby allowing them to focus on post-training self-efficacy. Thus, there are essentially two forms of self-efficacy, which are, pre-training self-efficacy and post-training self-efficacy.

Guthrie and Schwoerer (1994) however, stated that self-efficacy on its own does not directly affect training effectiveness, but when self-efficacy was measured together with perceived superior support and perceived training utility, it will have an impact on training effectiveness.

Consequently, it could be surmised from the above that individual characteristics of self-efficacy together with organizational climate of support

that include immediate superior support, will have an impact on training effectiveness.

Apart from the above, Honey and Mumford (1992) found that an individual's learning style needs to be in line with the training delivery methodologies in order for training to be effective. Unfortunately, Tennant et al. (2002) found that most organizations do not take into consideration the trainee's learning styles or preferences that might affect overall training effectiveness.

Additionally, Arthur, Bennett, Edens, and Bell (2003) in a meta-analysis on training effectiveness found that training methodologies adopted, types of skills trained and the choice of evaluation criteria were significantly related to the effectiveness of training programs. Burke and Day (1986) had also highlighted the three key areas coupled with Kirkpatrick's (1998) 4-levels of training evaluation as factors that correlates with training effectiveness. This study however, had controlled the training methodology, type of skill trained, and the evaluation criteria via a quasi-experimental design.

Other trainees' characteristics such as age, gender, work experience and educational background were explored by various authors (Cheng & Ho, 2001; Robertson, Kulik, & Pepper, 2001; Van Der Klink & Streumer, 2002) to determine whether these characteristics affect overall training effectiveness and transfer of training (David, 1997; Karuppaiya, 1996; Lefkowitz, 1994; Luwe, 2003; Pau, 2001), but had been found to produce mixed results.

1.4 Problem Statement

Huang (2001) mentioned that in most studies relating to training effectiveness, the focus was on establishing the relationship between training system or practices or factors (individual and organizational) with training effectiveness, with emphasis on objective, content, organizational factors, expenditures, duration of training, coverage of employees, delivery methods, profitability, growth and overall organization performance. Although there had been various studies (Brown, 2003; Carlson & Schmidt, 1999; Frese, Beimel, & Shoeborn, 2003; Hunt & Hunt, 2004) that had used simple pre-post tests and experimental designs to evaluate training effectiveness, such studies were still relatively limited. Bass and Vaughan (1966; cited in Hashim, 2001) had suggested that a rigorous experimental design be used to evaluate the effectiveness of training where possible. Thus, there was a need to focus on experimental studies to further strengthen researches in the area of training effectiveness. Therein lies the contribution of this research.

Salas et al. (2001) recommended that longitudinal studies be used to assess and measure training effectiveness over a period of time. The indications suggest that due to the limitations of correlation studies, there is a need to include longitudinal studies into future researches on training effectiveness. This study thus had incorporated a longitudinal study into the experimental design. The collection of data was conducted over a period of three months.

Furthermore, to the researcher's knowledge, researches (Bolden, 2005; Grensing-Pophal, 2004; Highley, 2005; Kirkpatrick, 1998; Tennant et al., 2002; Tyler, 2005; Van Der Klink & Streumer, 2002) on training

evaluation and training effectiveness had focused on interpersonal skills and technical skills, with only Evans (2005) providing the view that conceptual skills should also be evaluated, but did not provide the “how”. This research focused on the evaluation of the effectiveness of a specific conceptual skills training in an effort to highlight the method available for such evaluation.

Sackett and Mullen (1993) found that both the correlation and quasi-experimental or experimental design could be used to assess the effectiveness of training program. Unfortunately, they found that most researches on training effectiveness had focused only on correlation design or a simple pre-post test design. Frese et al. (2003) found too that correlation studies in training evaluation researches do not provide for the Hawthorne effect, the effect of time or the effect of comparison. This study had therefore used a quasi-experimental design combined with a longitudinal study to evaluate the effectiveness of conceptual skill’s training. Furthermore, a Solomon 4-Group design (1949) is used to reduce the possibility of the Hawthorne effect which is often present in simple pre-post test designs (Goodwin, 1995).

According to Cooper and Schindler (2004), a quasi-experimental design is like an experimental design, whereby the only difference is that complete random assignment of participants is not possible in a quasi-experimental design. The Hawthorne effect on the other hand occurs when the participants realize that they are involved in an experiment and thus would perform differently, thereby jeopardizing the validity of the research (Zikmund, 2003). Therefore, when the Hawthorne effect is not effectively catered for in an experiment, it could confound the outcomes or results of the

research. As a result, the findings of the research could be threatened in terms of internal validity. In this study, the Hawthorne effect had been addressed and catered for.

1.5 Objectives of the Study

The objectives of the study will be primarily:

1) to determine the effectiveness of a specific conceptual skill training, that is, problem solving and decision making training
2) to ascertain whether individual characteristics such as age, gender, education background, working experience, and learning styles will influence and affect the extent of training effectiveness of a specific conceptual skill training, that is, problem solving and decision making
3) to determine whether perceived superior support and self-efficacy will have an impact on training effectiveness for a specific conceptual skill training, that is, problem solving and decision making

1.6 Research Questions

In order to address the problems and inadequacies of previous researches, the following research questions were asked:

1) How effective is the conceptual skill training in problem solving and decision making?
2) Will personal characteristics such as age, gender, academic qualifications, years of managerial experience, and learning styles influence and affect the effectiveness of the specific conceptual skill training?

3) What is the effect of perceived superior support and self-efficacy on the effectiveness of the specific conceptual skills training?

1.7 Scope of Study

According to Noe (2002), training and development, when effectively implemented will lead to a change in behavior, job performance or productivity. Hunt and Hunt (2004) stated that even a short training, when effectively conducted could lead to and caused a change in attitude.

The types of training, trainer, trainer's characteristics, training methodology, training equipment, training materials and the training environment were controlled using an adaptation of Solomon's (1949) 4-group quasi-experimental design. Pre-test and post-test assessments were conducted at two levels, that is, at the Learning level and at the Behavioral Level in accordance with Kirkpatrick's (1998) 4-levels of training evaluation.

The participants' personal characteristics such as age, gender, academic qualification, work experience, learning styles and self-efficacy were studied to determine whether these characteristics will have an impact on training effectiveness under a controlled experiment condition for conceptual skills training.

Perceived superior support was also highlighted to determine whether the existence or non-existence of such support will cause the post-test scores to be significantly higher or lower for the Experimental Group that had received the training intervention. A training intervention, according to Hwang (2003), is a process that facilitates and nurture learning. It relates to the implementation of training programs to resolve people related issues or

problems by improving the knowledge and skills of the employees via the training intervention.

Plant and Ryan (1992) sought to connect training interventions with organization benefits derived from the intervention and found that it was impossible to “prove” a direct relationship between a given training intervention and specific organization benefits. However, the authors stated that attention should instead be focused on the cumulative effects of the training intervention on organization effectiveness.

Hwang (2003) opined that any training intervention efforts must provide participants with the opportunity to reflect on problems and question framing in order to come up with solutions to deal with the problems and to experiment with the solutions before conducting a critical analysis of the results of the implementation of the said solutions. For the current study, opportunities were provided to the participants after the training intervention to critically evaluate and utilize the content learnt and to experiment with the solutions back at the workplace via a longitudinal study. This thus provided the participants with room for reflections.

According to Schmidt and Hunter (2004), a person’s mental ability plays a central role in predicting job performance. Shephard (2002) on the other hand stated that human experiences via continuous learning (formal or informal) can shape and re-shape the mental capabilities of an individual, thereby enhancing individual’s general mental ability. As this study is not concerned about job performance, but learning abilities, the general mental ability of the participants was not assessed.

Learning goal orientation on the other hand refers to a person's preference for developing new skills and is also related to a person's perceived relevance toward a specific training program (Payne, Youngcourt, and Beaubien, 2007). The participants in this study were all volunteers who had decided to participate as they opined that the training conducted was of relevance to them and thus, were eager to learn from the training. Therefore, there was no need to ascertain whether the learning goal orientation of participants was tailored toward the specific conceptual skill training conducted in this study.

The participants for the purpose of this experiment consist of managers from both the manufacturing as well as the service industries in and around Penang. The focus however, is only on managers from the private sector. The rationale for focusing on the private sector is due to the fact that private sector organizations today are increasingly conscious of the need to determine the effectiveness of training in order to ascertain the value of the training returns (Jain & Agrawal, 2005) as effective training could lead to the generation of competitive advantage for the private enterprises (Dessler, 2005). Furthermore, private organizations would like to know whether the money spent investing on its human resources had been worthwhile.

This is because the key aim of the private sector is profit orientation, where a strong competitive advantage could lead to higher profits, whereas the objective of the public sector is to serve the public, and though competitive advantage is no less important, in most instances, it is not

considered as a key factor for determining a public enterprise's performance (Stimpson, 2003).

When private enterprises have competitive advantage from its human capital, it would spur growth and expansion that would ultimately lead to more employment opportunities and the development of a knowledgeable workforce that is much needed to ensure continuous economic growth of a nation (Yong, 2005). Therefore, the emphasis is on the private sector.

1.8 Significance of the Study

Most of the previous researches had been focused on determining whether a relationship exist between various individual and organizational factors and training effectiveness (Bedinham, 1998a; Cheng & Ho, 2001; David, 1997; Karuppaiya, 1996; Pau, 2001; Roberson et al., 2001; Sazri, 2002; Tracey & Tews, 1995; Warr & Bunch, 1995). Although some researches (Brown, 2003; Hunt & Hunt, 2004; Van Eerde, 2003) had used experimental designs to evaluate training effectiveness, Frese et al. (2003) stressed that an experimental design with only one control group may not be sufficient to prove that the change in behavior or process was attributed directly to the training and is also not sufficient to siphon out the Hawthorn effect of repeated testing. Therefore, it had been suggested that more control groups be used to minimized or reduce the Hawthorn effect inherent in experimental designs (Frese et al., 2003).

The above indicated that experimental designs though had been used in evaluating the effectiveness of training, it had its problems. This study aimed to minimize these problems via the employ of an adapted Solomon's

(1949) 4-group experimental design that had incorporated Mohsin's (1984) single I, multiple N, time series design. Spence and Blanchard (2001) found that the Solomon 4-group design is the most desired experimental design as it has strong internal and external validity. The adapted Solomon's (1949) 4-group experimental design in this study possessed many of the strengths of the original design as well as the possibility of ruling out the Hawthorne effect via the inclusion of a Placebo group (Zikmund, 2003).

Researches conducted had mostly obtained data and information at a specific point in time only and had not considered the probable effect of time on training effectiveness. Perry and Apostal (1986) found that an attitude training was still effective not only immediately upon completion of the training, but six (6) months later, thereby suggesting a need to assess training effectiveness over a period of time.

Therefore, the major contribution of this study to the existing literature on training effectiveness and evaluation is from the perspective of a specific conceptual skill training using a comprehensive quasi-experimental design combined with a longitudinal assessment that extended over a period of three months.

1.9 Definitions of Key Terms

The key concepts and terminologies used in this study are explained in the subsequent paragraphs.

Training Effectiveness is defined as a measurement of observable changes in knowledge, skills, and attitude after training has been conducted (Bramley, 1996). Alvarez, Salas, and Garafano (2004) defined training

effectiveness as the variables that are likely to influence the outcomes of the training at different stages of the training process. For the purpose of this research, the definition provided by Bramley (1996) will be adopted as the focus on the study is on the measurement of changes in knowledge, skills and attitude upon completion of the training.

Training Evaluation is defined as a systematic process of collecting data and information to determine whether training was effective (Goldstein & Ford, 2002). Kirkpatrick (1998) however, referred to training evaluation as the evaluation of four parts, including reaction, learning, behavioral change and return on investment. The more generic definition provided for by Goldstein and Ford (2002) would be adopted in this research. However, the actual evaluation model used would be based on Kirkpatrick's (1998) four-levels of evaluation.

Transfer of Training has been defined by Broad and Newstrom (2001) as the effective and continuing application by trainees to their jobs the knowledge and skills gained in training, both on the job and off the job. The focus of the research is on the effective application of the knowledge and skills gained in training as three (3) months is not adequate to determine whether there was continuous application on and off the job. Therefore, the transfer of training literature reviews will be omitted as it has no direct bearing on the current study.

Quasi-experimental design is defined as a design that looks like an experimental design, but lacks a key ingredient, which is the random assignment of subjects (Cooper & Schindler, 2004, p.411). This research is deemed a quasi-experimental design as the participants in two groups could

not be randomly assigned. In a pure experimental design, all the participants of the groups could be randomly assigned (Zikmund, 2003). Since non-random assignment was evident in the present study, it was deemed as a quasi-experimental design and not a pure experimental design (Cooper & Schindler, 2004).

Conceptual skill is defined by Katz (1974) as a skill that requires more thinking and conceptualizing as compared to technical, hands-on skills. Yukl (2002) viewed conceptual skills as skills that focused on ideas and concepts and are considered to be mental capabilities that allow managers to view the organization as part of a larger supra-system. Although the definition of analytical skills provided by Al-Madhoun and Analoui (2003) had similarities with Katz (1974), for the purpose of the research, the definition provided by Katz (1974) is used as the conceptual skill training conducted as the training intervention relates to thinking and conceptualizing. Furthermore, according to Peterson and Van Fleet (2004), Katz's (1974) work was still very much the basis for other researches on managerial skills including Analoui (1996) and all the author's subsequent researches.

Katz (1974) had also found that for managers to be effective, three key skills were required, which are (1) technical skills; (b) interpersonal skills; and (c) conceptual skills. On the other hand, Analoui and Hosseini (2001) opined that tasks, people, self-related and analytical skills were required to be integrated in order to contribute to managerial effectiveness. Analytical skills were linked to the skill set that required thinking and reflection (Al-Madhoun & Analoui, 2003). Hence, Katz (1974) definition of conceptual skill

is preferred as it is the foundation for all subsequent researches on conceptual related skills.

Participants are defined as the people involved in an experiment (Creswell, 1994). At times, these participants are known as subjects. However, for the purpose of the research, the term participant would be used.

Individual characteristics have been defined as the trainees' personal characteristics such as age, gender, race, education background and years of working experience (Cheng & Ho, 2001). However, Brown, Rietz, and Sugrue (2005) defined learner's characteristics as the cognitive ability, motivation to learn and prior experience of the learner, and age, gender, race, education background were viewed merely as demographics. For the purpose of this research, Cheng and Ho's (2001) explanation would be used. The term personal characteristics would be adopted when designing the questionnaire in line with Cheng and Ho's (2001) explanation.

Perceived superior support refers to the trainees' perception of the immediate superior's support, availability of resources and necessary technologies provided by these superiors to encourage the trainees to learn and transfer what they have learnt to their job (Foxon, 1993). Management support in the context of training and development on the other hand, has been defined by Brown and Gerhardt (2002) as the support and commitment provided by stakeholders, especially top management towards training. Management support would include immediate superior support. As the focus of the research is on immediate superior support, Foxon's (1993) definition would be used.

Learning style is defined as a person's preference for a certain single, different learning style (www.businessballs.com, 2006). This is also in line with Shephard's (2002) statement that learning style relates to a person's learning preferences if given a choice.

Kolb (1984) suggested that individuals develop preferences for different learning styles to assist learning and absorption that will help people to learn more effectively. The author had thus developed a learning style inventory to determine the learning styles of different people. The learning style inventory was further modified and enhanced by Honey and Mumford (1992) to focus on adult learners who are andragogic learner, specifically managers, whereas Kolb's (1984) learning inventory was more generic.

Chong and Tway (2006) defined andragogy as the art and science of adult learning that focuses on real life issues and application via the development of problem solving capacities. Adults learn differently from children, therefore, there was a need to assess the learning styles of an adult. As the participants for the research are managers, who are adult learners, Honey and Mumford's (1987) learning styles inventory and instruments are adopted.

Self-efficacy pertains to a person's judgment and belief about one's own ability to perform a specific task and is not evaluative in nature, whereby a person with low self-efficacy could still be productive (Gist & Mitchell, 1992). Bandura (1986) defined self-efficacy as people's judgment about their capabilities to organize and execute course of action required to attain designated types of performances. The focus of the research is on a specific skill, therefore, the definition provided by Gist and Mitchell (1992) would be

preferred as it looks at self-efficacy from the perspective of the performance of specific skills and emphasizes on the person's belief about his or her own ability to perform.

1.10 Organization of the Chapters

This research paper will be divided into 5 chapters. Chapter 1 provides an overview of the study and introduces the rationale behind the study, whereas Chapter 2 focuses on an extensive review of the available literature relevant to the purpose of the study and the resultant theoretical framework that this study is essentially based on. Chapter 3 then provides the research methodology, the overall research design and the detailed procedures relevant to a quasi-experimental design. This is followed by Chapter 4 that provides the detailed results and findings of this study while Chapter 5 goes on to discuss the findings obtained from the study. This is followed by the conclusion with highlights on the limitations of this study and possible areas for future researches.

CHAPTER 2

LITERATURE REVIEW

"One must learn by doing the thing: for though you think that you know it, you have no certainty till you try" Sophocles, circa 496 - 406 BC

2.0 Introduction

This chapter focuses on the literature pertaining to training effectiveness and factors contributing to training effectiveness as well as research designs adopted in training effectiveness studies. The chapter will commence with a review of general training and development literature, followed by a review of training effectiveness literature. A review of the literature on training evaluation tools will then be conducted. It will then be continued with an assessment of the linkage between training evaluation and training effectiveness followed by a review of the literature that linked training evaluation, training effectiveness and the transfer of training. An analysis of the researches on factors contributing to training effectiveness will be carried out before narrowing down to literature on conceptual skills training effectiveness research designs. Major researches and studies are then summarized and reviewed to identify the gaps and to develop the theoretical framework together with the hypotheses.

2.1 Training and Development

Training and development is defined by Dessler (2005) as a process that utilizes various methods to provide new and existing employees with the skills they need to perform the job. This definition is similar to that used by other authors' (Beardwell & Holden, 2003; Cascio, 1998; Cherrington, 1995;

Ivancevich, 2003; Mondy and Noe, 2005; Noe, Hollenbeck, & Gerhardt, 2006; Torrington & Hall, 2003; Yong, 2003). Noe (2002) however differentiates between training and development by stating that training refers to a planned effort by an organization to facilitate employees' learning of job related competencies, whereas development relates to the formal education, job experiences, relationships and assessments of personality and abilities that will help the employees prepare for the future.

Brinkerhoff (1987) concurred that training pertains to efforts made to develop knowledge, skills and attitude through a learning experience to perform a given task or job more effectively. Development, on the other hand, is viewed as a more long term endeavor to enhance and grow an individual's knowledge and skills in preparation for future tasks and responsibilities (Hashim, 2001).

Thus, from the above, it is clear that training is related to learning and practicing competences required to perform the current job while development is focused more on preparing the employee for future advancement. The focus of this study will be on training and not development as the training intervention conducted under the quasi-experimental condition is focused on improving existing job competencies.

Mort (2004) opined that training plays an important role in employee motivation and retention and helps to build loyalty and commitment. Pazy, Ganzach, and Davidov (2006) had also found that training intervention had reduced turnover of candidates in the Israeli Air Force. On the other hand, Chella (2006) contended that training empowers and add value to the participants, thereby enabling them to seek better employment opportunities

beyond the present organization. As a result, instead of retention, there is attrition.

However, speaking at a conference, Bingham (cited in Anonymous, 2004) highlighted that training and development is likely to play an increasingly important role in the industries in the United States of America (USA) as the number of jobs jump from 2.3 million in 2004 to 4.6 million jobs in 2008. Tyler (2005) further supported the above views by stating that globalization had helped to fuel the need for training and development around the world. This was affirmed by Stavrou-Costea (2005) that intense global competition coupled with extensive technological advancement had increased the recognition and awareness of organizations to invest in training and employee development for competitive advantage. However, as training and development is viewed as an investment, it is thus important for organizations to ensure that such training efforts are not wasted.

Tennant, Boonkrong, and Roberts (2002) found that “wasted training’” is a common problem in organizations due to a lack of appropriate assessment of training effectiveness. Domenick and Gillis (2005) further reminded that training is a business initiative and the value of training cannot be known until it is measured. Therefore, to ensure that training and development efforts bear fruit, assessment of training effectiveness is required.

Evans (2005) concurred that training and development, specifically for managers is increasingly important as these managers need to be equipped with the relevant skills and knowledge to meet the impending challenges of today’s dynamic and complex business environment. In a study on the

Slovak Republik's healthcare leaders and managers, Rushnakova, Bacharova, Boulton, Hlavacka and West (2004) found that training for healthcare managers are essential as many of the managers in the healthcare industry do not have adequate knowledge and skills on management in general. Popp (2006) found too that food service operators in the United States is increasingly focusing training and development efforts on their management level employees in order to enhance their managerial skills and competences.

Empirical researches (Burke & Day, 1986; Carkhuff, 1983) have found that communication skill is the most cost-beneficial training investment in the workplace. However, the findings of Burke and Day (1986) on the effectiveness of such managerial trainings via a meta-analysis have found mixed results. Furthermore, although it cannot be denied that interpersonal skills are of importance in building management competences and productivity (Carkhuff, 1983; Mole, 1996), there has been numerous researches in this area (Burke & Day, 1986; Carkhuff, 1983; Evans, 2005; Popp, 2006). However, literature pertaining to the evaluation of specific conceptual skill is still limited, more so in the context of Malaysia.

Furthermore, according to Katz (1974), conceptual skills are required by managers more than technical or interpersonal skills. Analoui (1995) had also found that for senior managers to be effective, analytical and conceptual skills are required. This study thus aimed to focus on a specific conceptual skill training for managers as the need to have more well trained managers are at the top of most organization's training agenda.

The argument for focusing on management related training such as conceptual skills training is strengthened by the 7th Malaysia Plan's budget allocated for management training that amounted to approximately RM 292 million (Pillai, 1994). According to Moreira (2005), the 9th Malaysia Plan had further focused on human resource development to prepare Malaysians for the global market. The area of development will be on leadership, creativity, and innovation. These are areas related to entrepreneurship where effective management skills are needed thereby indicating the increased importance of management training in Malaysia.

Training is also viewed as a powerful agent for facilitating an organization's expansion, development of capabilities and improvement of profitability (Cosh, Duncan, and Hughes, 1998). Huang (2001) agreed too that a well educated and well trained workforce is essential in maintaining an organization's competitive advantage. This was affirmed by Noe (2002) that training is increasingly being called upon to serve as the catalyst to drive change and to assists an organization achieve its stated strategic objectives. The above indicated that training is critical to organization's performance and success.

Mulder (2001) however, found that training is an expensive intervention for organizations, but is required to ensure that human resources perform optimally, hence the need for assessing the effectiveness of training. Cheng and Ho (2001) agreed too that training is an expensive investment, thereby indicating that training is a luxury for organizations, yet, is of importance for effective human resource performance.