CHAPTER 2

LITERATURE REVIEW

2.1   Introduction

This chapter highlights the importance of this study, the importance of training towards the organization, the approaches for effective training, the model used to measure effective training, and the measure to manage training outcomes. The literature review will be studied to uncover the gaps.

2.2   The Importance of this Study

For the purpose of this study, the researcher had searched for any official or academic study conducted by the Royal Malaysian Navy, Malaysian Armed Forces, Malaysian Air Force and institutions of higher learning on the effectiveness of learning transfer in improving the work performances of military officers and personnel. So far, only one study had been conducted on the performance of Universiti Pertahanan Nasional Malaysia (UPNM) Naval Graduates training performances. Some researches were also conducted on the Army and Air Force concerning training effectiveness, and they are relevant for this study.

Weng TJ (2000) studied and evaluated the attitudes, level of skills and knowledge of UPNM Naval graduates. His study was based on the evaluation of UPNM Naval graduate performance onboard ship under the supervision of the Commanding Officer. The finding of the study showed that the military training program has been generally effective to produce leaders who uphold

military culture. However, the findings also indicated that more attention is needed to monitor UPNM graduates skills in dealing with work problems and managing resources. The findings on knowledge showed low score which indicated the low level of knowledge.

Ahmad and Latif (2008) studied the performance of Malaysian Junior Army Officers. Their study involved 480 respondents from 3 main entries namely through Kolej Tentera Darat (KTD), Universiti Pertahanan Nasional Malaysia (UPNM) and Graduate Scheme (GS). The findings of the study showed that most of Junior Army Officers possessed the right attitudes and behavior besides willingness to work hard to complete their tasks, job and responsibility. However, the findings also showed the respondents' low score in initiative, prudence, firmness and knowledge. These results indicate the important role of a superior in guiding junior officers in their jobs.

Goldstein (1980) in his review of 3000 issues and topics concerning training concluded that any study on the importance of training should include its assessment, training development model, the instructional system and the usefulness of training technique. Wexley and Baldwin (1986) in their study investigated the effectiveness of three post-training strategies for facilitating transfer of training; assigned goal setting, participative goal setting, and a behavioral self-management approach based on the relapse-prevention model. The subjects were 256 students enrolled in an upper-level management course at a large Midwestern university in United States of America. Results showed that both the assigned and participative goal

setting conditions were superior to behavioral self-management and control conditions in inducing maintenance of behavioral change over a two-month period.

Baldwin and Ford (1988) conducted a twenty-year review of the research from 1967 through 1987. In their review, they examined several studies and classify the factors affecting transfer of training into categories of training inputs, training outcomes and conditions of transfer. However, they determined that these studies have two major problems which were the issue of work environment which characteristics were not operationalized in past research and the work environment studies which used self-report of behavior change as the major measure of transfer. Montesino (2002) conducted a study involving 250 sales representatives who had participated in a targeted sales training program from January 1992 to December 1993 for Fortune a pharmaceutical company headquartered in the Midwest of the United States of America. His study had found a low to moderate positive correlation between the perceived alignment of training with the strategic direction of the organization and the presence of practices to support usage of training. This study also found a positive correlation between awareness of and commitment to the strategic direction of the organization.

Tracey, Tannenbaum and Kavanagh (1995) examined the influences of the work environment on the transfer of newly trained supervisory skills involving 505 supermarket managers from 52 stores using work environment in terms of transfer of training climate and continuous learning culture. The results

from a series of analyses showed that both climate and culture were directly related to post-training behaviors. In particular, the social support system appeared to play a central role in the transfer of training. Mathieu, Tannenbaum and Salas (1992) conducted a study on a training program which was designed to improve proof reading skills. A test was carried out on 106 university employees from a large state university in the Northeast of the United States of America. A model of individual and situational influences on individuals' training-related motivation and training effectiveness based on valence instrumentality-expectancy theory was developed.

Rodney, McCloy, Lauress and Wise (2002) conducted a research to explore the relationship of a relatively new work-related construct, motivation to improve work through learning (Baldwin, Ford, and Naquin, 2000), to more establish constructs. The authors treat training motivation as a dispositional trait, a relatively stable characteristic of the individual, rather than a more transitory trait heavily influenced by situational factors. The results of this study observed were significant and in the direction hypothesized by the initial model. The study made by Naquin and Holton (2003) examined the degree to which the dimensions from the Five-Factor Model of personality, affectivity, and work commitment (including work ethic, job involvement, adjectives commitment, and continuance commitment) influenced motivation to improve work through learning. Data were obtained from a non-random sample of 239 private-sector employees who were participants of in-house training programs. Findings indicated that these dispositional effects were significant antecedents of motivation to improve work through learning.

2.3 What is Training?

There are few definitions on training. In military training is a process which intends to establish and improve the capabilities of military personnel in their respective roles (RMNTS, 2008). In his book, Leach (1998) defines training as the key to building comradeship and invariably raising a soldier's morale among soldiers and spirit-de-corps within units to enhance teamwork and enable soldiers personally and collectively to withstand hardship and danger, overcome fear and act resolutely against opponents. The RMN Training System (RMNTS, 2008) used the following definition: Effectiveness of training is the degree to which training prepares people for their job and efficiency of training is the relationship between the effectiveness of training and its cost, that is, the extent to which training achieves its objectives in relation to the expenditure of training resources.

Palo and Padhi (2003) defined training as a process of updating the knowledge, developing skills, bringing about attitudinal and behavioral changes and improving the ability of the trainee to perform their tasks efficiently and effectively. Bartlett (2001) viewed training as a management practice that can be controlled or managed to elicit a desired set of unwritten, reciprocal attitudes and behaviors, including job involvement, motivation and organizational commitment. In his study, variables access to training, training frequency, motivation to learn from training, perceived benefits resulted from training and supervisory supports for training are used to show the importance of training in an organization.

The British Department of Employment Glossary of Training Terms (1981) defined training as 'the systematic development of the attitude, knowledge, skill and behavior pattern required by an individual to perform adequately a given task or job'. The key concepts are 'systematic development' which implies planning and control, 'individual' which excludes group and team development, and 'job' or 'task performance' which is the criterion of success (Bramley,1995).

Hinrichs (1976) represent the American definition of training as "any organizationally initiated procedures which are intended to foster learning among organizational members in a direction contributing to organizational effectiveness". The key concepts are 'organizational procedure', which put the process into an organizational context, 'foster learning', which implies that the responsibility is shared between the organization offering it and the members receiving it, and the criterion of success is 'organizational effectiveness' (Bramley, 1995).

2.4   The Important of Training toward RMN

The primary task of naval training is to produce personnel capable of work performance. This is a complex process, which involves training people with a range of capabilities, inclinations and aptitudes to a level of performance which is acceptable. As the navy extends its reach and operate beyond its present operating territory, force structural developments have become more diverse, complex, and highly specialized (Doktrin Pertahanan Maritim, 2001).

Therefore, there are needs to train individuals with very specific knowledge, skills and attitude.

The present study addresses the research needs raised by Goldstein (1980b) and Feldman (1989) by examining how training can influence the development of trainees' attitudes and beliefs as they enter an organization. Organizations such as the RMN are turning to training as a means to address work issues. For example, training is used to improve current job skills, to prepare for career advancement, and to retool for new or changing job requirements. It is also a common point of entry into the organization (Goldstein, 1980a). Training programs have become, in many cases, the main socialization process for new employees (Feldman, 1989). Yet little is known about the impact of training programs on the individuals who enter work through those programs (Goldstein, 1980b). A training program is most successful when the right participants received the right knowledge, attitudes, and skills (contents) taught by the right mean of the right method, media, and instructors (process) at the right time (need to know) and place (location) so as to meet or exceed the organization expectation (learning objectives and performances outcomes) (Parry, 1997).

2.5   Transfer of Training for Effectiveness

Training effectiveness determines whether trainees have learned or can perform the tasks taught in training. This requires information about the knowledge or performance levels of trainees at the end of the training program and later on the job. The greater the learning and performance,

compared to a specified standard, the greater the effectiveness of the training program. In this study, training effectiveness is measured by knowledge, skill and attitudes of the trainee only at the end of the training program.

Broad and Newstrom (1992) defined the transfer of training to the workplace as "the effective and continuing application, by trainees to their jobs, of the knowledge and skills gained in training both on and off the job". Effective and successful transfer of training to the workplace is not solely determined by any one factor such as performance on the training program. The trainee level of motivation, support from the trainer and ability to understand and benefit from their training are important determinants of the individual's learning outcomes (Baldwin & Ford, 1988). In order to conceptualize the effective of training, Bramley (1995) considers the following as characteristics of an ideal training and development function. First, it should be designed with clear scope and objectives. Thus, assessment exercise should be conducted to establish skill gap and performance standards; Secondly, it should have proper reinforcements to continuously improve the performance capability of an individual employee; Thirdly, it should be role-specific and involve practice; it helps trainees do their present jobs better and skills that are practiced often are better learned and less easily forgotten; Fourthly, an effective training and development function should be carefully planned in terms of reading materials, learning duration, and instructors. Their proper organization enhances training effectiveness; Fifthly, it should be transparent to all employees at all levels. Employees should be aware of selection criteria of trainees and trainers, preparation of relevant teaching materials, training room

and accommodation of courses and actual conduction of courses. They feel responsive to training programmed when they are well informed; Lastly, it should be evaluated. Training consumes both organization's time and money, therefore it is important to determine how well it was conducted (i.e. trainees feedback). Evaluation reports establish whether the organization has derived more-or-less the same value from the amount of money and time invested in the program.

2.6   Factors Influencing Transfer of Training for Effectiveness

It is generally agreed that transfer of training, as defined by Baldwin and Ford (1988), is the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in a training context to the job and maintained over time. This definition suggests that transfer of training is a function of factors within the formal training context as well as characteristics in the transfer or work environment (Tracey, Tannenbaum, and Kavanaugh, 1995). In this study, the factors that will be investigated are the trainees' perception of the design of training program, the supervisor support and the trainee's motivation to learn.

2.6.1 Design of Training Program

A survey by the American Society of Training and Development revealed that 91% of training courses use a reaction measure at the conclusion of training to evaluate the course (Sugrue and Rivera, 2005). *Reaction criteria,* which are operational by using self-report measures, represent trainees' affective and attitudinal responses to the training program. In spite of the fact that "reaction measures are not a suitable surrogate for other indexes of training

effectiveness" (Tannenbaum and Yukl, 1992), anecdotal and other evidence suggests that reaction measures are the most widely used evaluation criteria in applied settings. For instance, in the American Society of Training and Development 2002 *State-of-the-Industry Report,* 78% of the benchmarking organizations surveyed reported using reaction measures, compared with 32%, 9%, and 7% for learning, behavioral, and results, respectively (Van Buren and Erskine, 2002). Assessing reactions allows trainers to measure if trainees are satisfied with the course and if they feel that they are learning from the training. Reaction data can provide trainers with valuable feedback that they can use to modify the courses to meet the needs of trainees and their organizations. This factor contributes to the use of on-the-job-training to increase the flexibility of training programs. Hence, this study predicts:

H1: There is a positive relationship between design of training program and training outcomes.

2.6.2 Supervisor Support

A significant amount of research has been conducted to identify work environment factors that contribute to the effectiveness of training. Numerous studies focused on the significant role of the trainee's supervisor. Becker and Klimoski (1989) found that the supervisor serves as one of the most important sources of feedback for employees. Rouiller and Goldstein (1993) reported that the work environment (behavior of colleagues and supervisor) was a much stronger predictor for training transfer than the trainees' learning outcomes at the end of the training program. Of all the work environment variables in this study, supervisory behavior affected training transfer the most. Van der Klink et al (2001) identified that, besides feedback on trainees'

performance, the supervisor also plays an important role as a significant source of social support. If the supervisor is willing to discuss opportunities and problems, trainees become much more motivated to apply the role of mentors. Hence, this study predicts:

H2: There is a positive relationship between course supervisor's support and training outcomes.

2.6.3 Motivation to Learn

Trainees will only learn and apply the training content to their jobs when they have both the ability and the motivation to do so. Motivation is typically defined as "variability in behavior not attributable to stable individual differences or strong situational coercion" (Quin˜ones, 1997). In a training context, few scholars had emphasized on the importance of motivation to learn toward training. For example, motivation can influence the willingness of an employee to attend the training program (Noe and Wilk, 1993), to exert energy toward the program (Ryman and Biersner, 1975), and to transfer what they learn in the program onto the job (Baldwin and Ford, 1988). Thus, it is likely that trainees cannot reap the full benefits of training without considering training motivation. Some studies also suggested that motivation played a more determinant role than other individual factors in regard to training performance. Colquitt et al. (2000) suggested that even if trainees possess the ability to learn the content of a course, they might fail to benefit from training because of low motivation. Quin˜ones (1997) also suggested that the characteristics of trainees such as motivation and attitudes are more important to the training effectiveness than are course-content variables. Baldwin and Magjuka (1991) further posited that training motivation is a

mediator between the pre-information and training outcomes. Hence, this study predicts:

H3: There is a positive relationship between trainee's motivation to learn and training outcomes.

2.7   Model Used to Measure Effective Training

It is not enough to simply conduct training in an organization, but that program must also be evaluated to determine its effectiveness. Many different approaches have been used to measure training effectiveness. The current standard for most trainers was established by Donald L. Kirkpatrick taxonomy of measure: reaction, learning, behavioral and results. An American Society for Training Development (ASTD) survey indicates that 67% of organizations that conduct training evaluations use the Kirkpatrick method. Nearly all organizations perform Level 1 and Level 2 evaluations, and many organizations perform Levels 3 and 4 evaluations (Webster and Lombard, 2004).
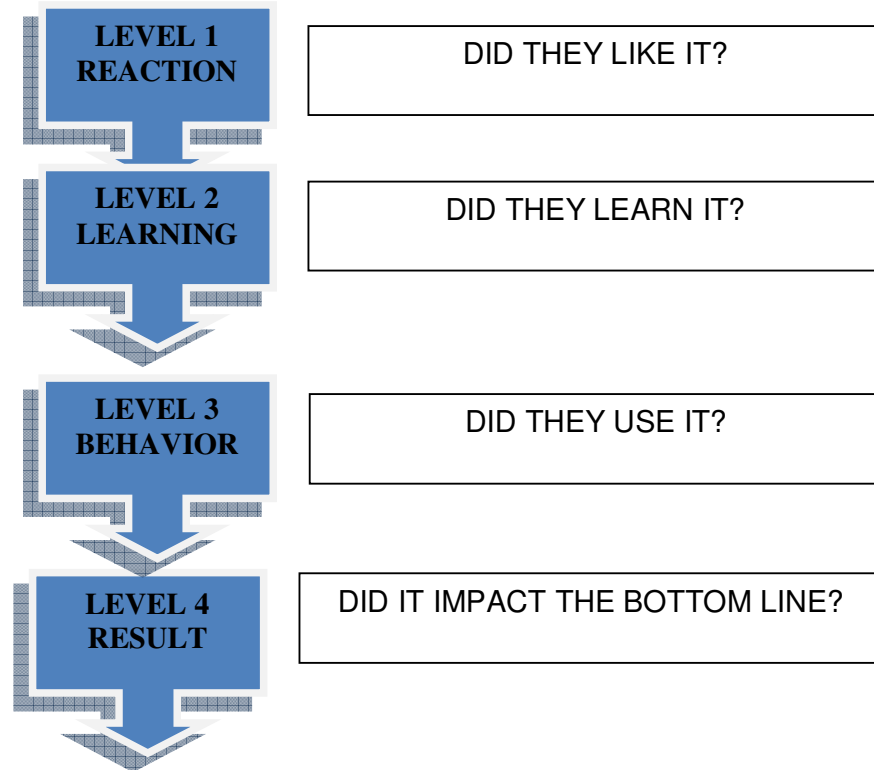
LEVEL 1 REACTION	DID THEY LIKE IT?
LEVEL 2 LEARNING	DID THEY LEARN IT?
LEVEL 3 BEHAVIOR	DID THEY USE IT?
LEVEL 4 RESULT	DID IT IMPACT THE BOTTOM LINE?

Figure 2.2: Kirkpatrick's Evaluation Model

2.8   Kirkpatrick's Four Levels of Evaluation

Donald L. Kirkpatrick identifies three reasons why training should be evaluated: "to justify the existence of the training department, to decide whether to continue or discontinue training programs and to gain information on how to improve future training programs (Kirkpatrick, 1998b)."

2.8.1 Level 1 Evaluation – Reactions

The level-one evaluation, i.e the reaction stage, measures how the trainees feel about a program. Kirkpatrick (Kirkpatrick, 1998b) states that "evaluating reaction is the same thing as measuring customer satisfaction. If training is going to be effective, it is important that students react favorably to it." This evaluation is often conducted using questionnaires given to trainees after the training is complete. Kirkpatrick also states that if trainees do not react

"favorably" to a training program, they usually are not motivated to learn. For this study, the course satisfaction questionnaire will be used for trainee perception toward sea training program.

2.8.2 Level 2 Evaluation – Learning

Learning measures the extent to which participants change attitudes, improve knowledge, and increase skill as a result of attending the program. Level Two is a test to determine if the learning transfer has occurred. Kirkpatrick (Kirkpatrick 1998b) states that "it is important to measure learning because no change in behavior can be expected unless one or more of these learning objectives have been accomplished. This step is vital because if learning does not take place, behavior cannot change and no results to the company can be realized. Kirkpatrick recommends using a before-and after training measure of job performance to quantify changes in knowledge, skills, attitudes, and behavior after training. In this study, a 'test' is used to measure knowledge and attitudes, skills, and attitudes after the sea training program. However, due to time constraint, only one test will be conducted after trainees' had completed their phase of sea training program.

2.8.3 Level 3 Evaluation - Behavior

Level Three evaluates the job impact of training. After "learning" has been measured, an evaluator can determine if the training resulted in any behavior changes. In order to evaluate behavior, Kirkpatrick again suggests testing before and after the training. When evaluating this change, it is also important to give time for the training to take effect. It depends on the type of training

that is given as to when the trainees should be evaluated for behavioral changes. For example, he states that for some training, a good "rule of thumb" for evaluation is after two or three months and for others, after six months is more practical (Kirkpatrick 1998b). In order to measure this desired change in behavior, Kirkpatrick suggests using surveys or interviews, or a combination of the two. The subject of this study is changes of trainee behavior within 3 month period of sea training phase. The Training Officer will evaluate and reward each trainee's behavior in his Performance Report Book (BAT A3023A) which contains rewards of his performance and his before-and-after training behavior changes.

2.8.4 Level 4 Evaluation- Results

This final level of evaluation, the results stage, is often the most difficult, but most requested evaluation. Kirkpatrick notes that often results can only be seen on a long-term basis such as improved morale or quality of work life. Kirkpatrick also warns the evaluator to weigh the cost of evaluation against the benefits. If it is too costly to quantify the results of a program, and the first three levels are sufficient, then the benefit of conducting an evaluation of results does not outweigh the costs. This study will not explore this level due to the time constraints in evaluating the trainees.

Therefore, the researcher will use only Level 1, 2 and 3 to address this study. The changes of behavior, skill, knowledge and attitude of the trainees during and after the sea training phase will be evaluated. Data for Level 1 is collected from the trainees' perception of course satisfaction; Level 2 from the

examination results; and for level 3, data is collected from the trainees'
changing of basic job skills and personal attributes as recorded in BAT A
3023A report.

2.9   The Management of Training Outcomes

The purpose of management of training outcomes in a research context is to
provide feedback to managers and workers on the quality of the work
performed in particular areas, with the goal of achieving and maintaining high-
quality performance. For this reason, it is necessary to measure those
aspects of performance that are the most important. Training effectiveness
refers to the extent to which the training objectives are achieved as stated in
Basic Junior Officer Course Training Card. In general, training effectiveness
is evaluated by measuring a number of training and transfer outcomes.   As
mentioned above, Kirkpatrick (1976) suggested that reactions, learning,
behavior, and results are four measures that are relevant for the evaluation of
training outcomes.   Although Alliger and Janak (1989) criticized that the
appropriate relationships among these four measures, the measures are still a
useful and valuable heuristic for evaluating training outcomes (Colquitt et al.,
2000; Kraiger et al. 1993; Gagne and Medsker, 1996; Quin˜ones, 1997). For
instance, Alliger et al. (1997) augmented Kirkpatrick's training criteria: They
divided training reactions into affective and utility reactions, and learning into
immediate post-training knowledge, knowledge retention, behavior/skill
demonstration. Alliger et al.(1997) also found that utility reactions were more
strongly related to transfer than affective reactions. Kraiger et al. (1993)
extended Kirkpatrick's work and presented a comprehensive classification

scheme of learning outcomes. They classified learning outcomes into three major categories: skill-based or behaviorally based learning, cognitive learning, and affective learning. Also, Gagne and Medsker (1996) classified learning outcomes into five types such as verbal information, intellectual skills, motor skills, attitudes, and cognitive strategies. In Colquitt et al. (2000), training motivation model, learning outcomes (i.e. declarative knowledge, skill acquisition, and reactions etc.) are considered as immediate training effectiveness, and transfer and job performance are considered as post-training effectiveness. Baldwin and Magjuka (1991) also emphasized that learning and transfer will only occur when trainees have both the capability and the intention to transfer the learned skills on the job. As indicated before, this study used course satisfaction, results of the examination and changing of basic job skills and personal attributes as measures for evaluating immediate training effectiveness. Hence, this study predicts:

H4: Sea training program will increase the training effectiveness in term of reaction based on trainees' course satisfaction; learning based on the results of the examination: and behavior based on positive increments of basic job skills and personal attributes.

2.10   Research Framework

This final section of the literature review provides a research framework of the relationships between design of training program, supervisor support, motivation to learn and the training outcomes.
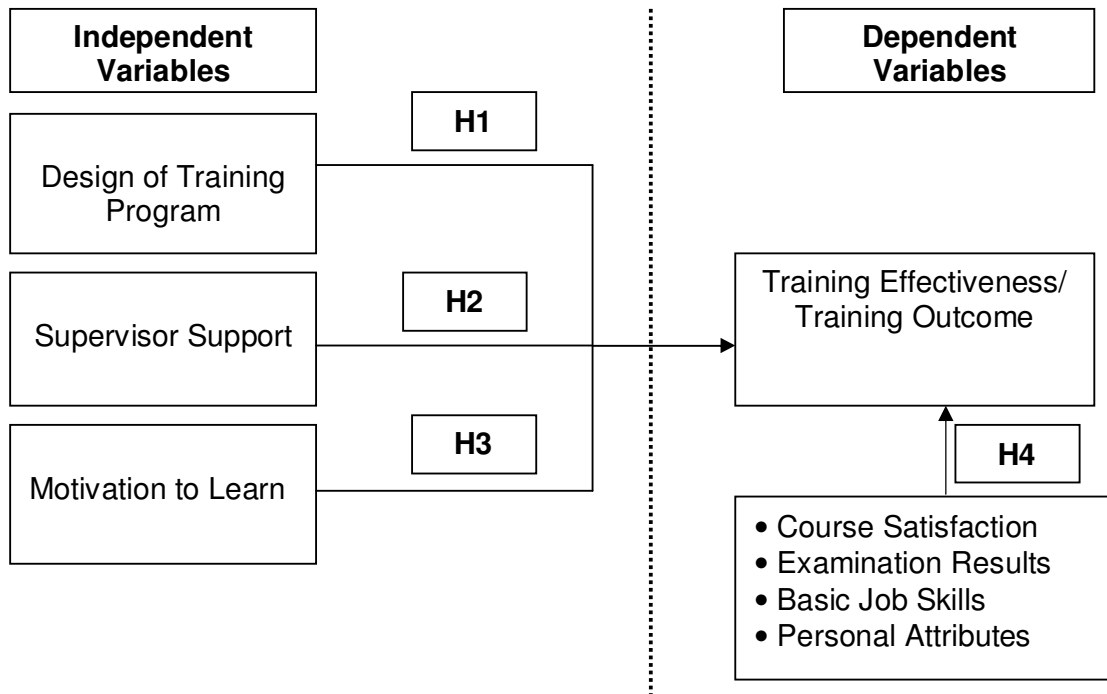
Figure 2.2: Research Framework of the Relationships between Design of Training Program, Instructor Support, Motivation to Learn and the Training Outcomes

2.11   Summary

The literature has demonstrated that transfer of training for work performance is complex and has not provided practitioners with useful applications to deal with the complexities of transfer. In addition, recent research has focused on developing instruments to measure transfer and its antecedent factors in the workplace (Holton et al., 2003).   Research suggests that identifying the individual and situational factors, which influence transfer of training, is important in helping practitioners to know the effects beyond the immediate training course (Kozlowski and Salas, 1997; Mathieu & Martineau, 1997; Rouiller & Goldstein, 1993; Tannenbaum and Yukl, 1992).   Therefore, this study will examine: the trainees' perception of the importance of the design of training program toward training outcomes; the influence of trainees' perception of the importance of the level of support and the encouragement that trainees receive from their supervisors on their levels of performance;

whether the trainees' perception of the importance of the motivation to learn can predicts trainees' readiness to benefit from training that would assist trainees' to maximize the benefits they receive from training program.; whether trainees' perceive that transfer was achieved through course satisfaction; and whether trainees' perceive their work performance improving when they transferred their newly learned knowledge and skills.