Chapter III

Setting of the Research Problem
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SETTING RESEARCH PROBLEM

This chapter delineates the research problem by Establishing the conceptual frame work and definitions. The purpose statement and the objective are conveyed, and the research hypothesis is described. The chapter concludes with the assumptions and limitations of the study. The research purpose is to study the impact of organizational factors viz. Organisational learning, training design & trainer’s effectiveness and individual factors viz. locus of control, Job satisfaction on learning and transfer of training on the job.

3.1 The objectives are:

(i) To assess the reaction of the trainees after the training programme.

(ii) To evaluate the impact of training on learning of trainees.

(iii) To assess the difference in learning of experimental group and control group.

(iv) To study relationship between learning of individual in a training programme and his perception about design of training

(v) To study relationship between learning of individual in a training programme and his perception about trainer’s effectiveness.

(vi) To study the relationship between the job satisfaction and the learning of the trainees.

(vii) To evaluate the impact of level of organisational learning on trainee’s learning in a training programme.

(viii) To assess the impact of locus of control of individual on his learning from a training programme.

(ix) To assess the relationship between organizational learning and transfer of training on the job.
(x) To compare transfer of training on the job in experimental and control group.

3.2 Conceptual framework

The conceptual framework for this study is derived from theories and postulates in previous researches. Figure 3(i) outlines the framework and the hypothesized relationship. The relationship is based on the premise that training enhances the knowledge, skill, attitude of the trainees. And after the end of training Programme, organizations intends to help the individual to transfer his learning on the job.

*Organisation factor*

*Individual Factor*

Organizational Learning

Training Design

Trainer's Effectiveness

Job Satisfaction

Locus of Control

![Research Model of Training Effectiveness](image)
3.3 Relationship between various variables

a) Training Design and Learning (A)

The design of training programme have an impact on learning of trainees. The design includes drawing objectives, deciding contents, methodology, choice of trainer, duration and study material. Scherer (1984) Opines that “People learn best when they feel they have control over the pace and depth of the learning process. Therefore, training designer should allow trainees to have input into the pace and time spent on topics. Trainees will attend to things in the environment that are most important to them. Thus the learning events and process should be structured so that the most important things are learning events and materials (Blanchard, Jame, Thacher 1999).

Sequencing of contents is also very important. If topics of discussion do not seem to follow some logic and just come in random succession the learning may be piecemeal and participants may not be able to relate one session to the other. (Saiyadain 2004).

According to Bates (2003) training goals and materials should also be content valid, or closely relevant to the transfer task. Drawing upon identical elements theory (Thorndike & Woodworth, 1901), trainers should keep the responses trainees make consistent from training environment to the job to ensure near transfer. Although content relevance has consistently been a critical cognitive component of instructional design approaches (Clark & Voogel, 1985), it has only in the last decade been empirically examined as a correlate with transfer outcomes (Holton et al., 2000; Lim & Morris, 2006; Rodriguez & Gregory, 2005). In their empirical work, Axtell et al. (1997) found that the content validity of the training information was highly correlated to transfer immediately after and at the 1 month mark after training \((r = .61, .45, p < .01, \text{ respectively})\). And content relevance emerged as the primary factor in predicting trainee perceptions of successful transfer in a cross-sectional transfer study of Thai managers (Yamnill & McLean, 2005).

Burke, Hutchins(2007) in integrative literature review contemplated that trainer must see a close relationship between training content and work tasks to transfer
skills to the work setting, thus underscoring the utility of needs assessment in identifying appropriate training content.

Learning interventions should be designed to provide adequate practice and feedback to enhance long-term maintenance and application of skills (Salas, Rozell, Mullen, & Driskell, 1999). In empirical studies, several authors found that cognitive or mental rehearsal and behavioral practice strategies during training are positively correlated with transfer (Ford & Kraiger, 1995; Holladay & Quinones, 2003; Warr & Allan, 1998). Research by Lee and Kahnweiler (2000), using a posttest only control group design \( (n = 130) \), found that providing participants with feedback, reinforcement, and remediation opportunities for learning mastery resulted in significantly higher transfer scores on a work task. In an extensive meta-analysis \( (n = 8,980) \), Donovan and Radosevich (1999) noted considerable support for distributed practice (i.e., taking breaks when practicing applying trained skills) for increasing learning, although measures for its impact on transfer were minimal.

Active learning involves trainees in course material through carefully constructed activities (Myers & Jones, 1993; Silberman, 1998; Silberman & Auerbach, 2006), compared to passive instructional methods such as lecture. Active learning is thought to maintain the adult attention span (Midendorf & Kalisdh, 1996; Stuart & Rutherford, 1978), a likely precursor of transfer. In a meta-analysis of 95 studies of health and safety training methods, Burke et al. (2006) found that including active training methods (such as behavioral modeling, feedback, and dialogue) increased learning and decreased negative outcomes (such as injuries). In another study, the results of several experiments involving measures of retention of information at the end of a course indicated that discussion-based techniques were superior to lecture only (McKeachie, Pintrich, Lin, & Smith, 1987).

b) Trainer's Effectiveness and Learning (B)

Trainer is a friend-philosopher-guide of trainees. Effectiveness of trainer will have direct impact on the learning of individuals. A trainer is a craftsperson at work. Intent on the utility and elegance of the result, he or she also varies the
pace to go with the learners’ best pace (Lynton & Pareek 2000). A study by Stermerding (1961) showed indirect influence of the trainer on group development. Another study to examine the effects of the training interventions on the pattern of the group behavior specifically on its normative behaviour by Psathas and Hardert (1966) showed that trainer’s interventions influenced what members should or ought to do and his view constitutes what is appropriate group behaviour. Trainer's interventions were consistently fit into four normative categories: analyzing group interaction or process, feelings, feeding, and acceptance concerns.

Lynton & Pareek (2000) advocates that trainer must be open to continuous and thoughtful analysis by the training group of such matters as the effectiveness of his own role, the value of the activities he has helped to plan, and trouble spots in the activities that need to be reduced or eliminated through new planning. Without such session-by-session evaluation, even the best of trainers will do a poor job.

In a study of training professional’s knowledge of empirical transfer research findings (Hutchins & Burke, 2007), transfer knowledge was significantly associated with trainer’s education level (r = .21, p < .05), training certification (r = .19, p < .05), and job level (r = .20, p < .05), indicating trainers with a higher level of education or certification and how occupied a higher level in the organization were more knowledgeable of research-based transfer findings.

c) Job Satisfaction and Learning from a Training course (C)

Empirical studies of relationship between job satisfaction and Transfer of training couldn’t be traced but indirectly studies related to motivation give insight about job satisfaction and transfer and transfer of training. Job satisfaction is an intrinsic component of motivation. However, learning is another training outcome identified by Noe (1986) that can be influenced by the career and job attitudes. Noe and Schmitt (1986) found a significant relationship between job involvement and other training outcomes such as motivation to learn and to transfer. These results not only presume that individuals with more positive
attitudes toward their job are more likely to learn the training material, but are also more likely to transfer it to the job (Holton, 2005).

Shipton et al. (2002) believe that workplace learning occurs through a dynamic interaction between formal and informal learning. They feel that formal learning stimulates informal learning and that informal learning often leads to participating in more structured learning activities. The two types of learning complement each other and lead to further improvements and innovations. Leslie et al. (1998) revealed that workplace learning does not occur for its own sake, but rather as a means of achieving organizational and individual goals. Organizational goals include increased worker participation in decision-making and expanded job responsibilities. Individual goals include the need for personal achievement and development (pride in quality workmanship, sense of contribution to a greater endeavor), need for recognition and acceptance (sense of belonging to a social group, esteem gained from recognition), and financial needs (financial security, advancement in terms of income and earning potential).

For many individuals the benefits of achieving personal goals are mostly psychological, and the psychological benefits are far more satisfying than financial rewards. The organizations with the greatest harmony between organizational and individual goals are those that are sensitive to individuals and provide them with the resources and opportunities for learning and achievement. Businesses that have made learning, education, and development a priority have seen it pay off through greater profitability and increased worker job satisfaction (Filipczak, 1989; Leslie et al., 1998; Mulraney and Turner, 2001).

There is a need to study the role of occupational satisfaction, affective and utility reactions and the importance of learning for enhancing training transfer to the workplace. The results will reinforce the increasing awareness of the need to understand training effectiveness more broadly. In order to remain competitive in the global business environment, companies must pay attention to transferring learning from the training context to the work context (Cascio, 2000; Dowling and Welch, 2005).
The intrinsic components of motivation have also been linked to training outcomes. Although research has found influences for both extrinsic and intrinsic factors on transfer (Rouiller & Goldstein, 1993; Santos & Stuart, 2003; Taylor, Russ-Eft, & Chan, 2005; Tracey, Tannenbaum, & Kavanagh, 1995), findings appear to favor intrinsic factors. For example, in Facteau et al. (1995) trainees who perceived intrinsic reasons to attend training reported higher levels of motivation to attend and learn.

Kontoghiorghes (2001) found that intrinsic variables such as a sense of recognition were found to be more influential on the retention of training \((r = .34)\) compared to extrinsic factors such as pay \((r = -.07)\) and promotions \((r = .05)\). Training transfer is also influenced by job and career variables in that trainees who rated high on these variables tended to perceive more potential benefits from a training intervention to enhance their current or future job performance (Clark et al., 1993; Facteau et al., 1995; Kontoghiorghes, 2002).

Job satisfaction can be influenced by a variety of factors, e.g. the quality of one's relationship with their supervisor, the quality of the physical environment in which they work, degree of fulfilment in their work, etc. Pidd (2004) found that trainees who identified with workplace groups (described as employee and managers) reported higher transfer than those who did not have an affiliation or identification with work members or the organization. More specifically, learners' degree of organization commitment, evidenced by \(r = .45\) in Colquitt et al. (2000) and an impressive \(r = .61\) in Kontoghiorghes (2004), produces an interested learner who wants to gain and use new knowledge at work. No studies could be traced in particular which finds the relationship between job satisfaction and Training effectiveness.

d) **Locus of Control and Learning from a Training course (D)**

Trainability of individual has an impact on learning of trainees in a training programme. Locus of control, an individual trait influences the learning and transfer of training. Not many empirical studies on LOC and its impact on training effectiveness could be found in literature review. Burke, Hutchins (2007) in integrative literature review on training effectiveness found that there are not
many concrete researchers on the impact of locus of control on training effectiveness.

Spector (1982) suggested that because locus of control is a personality characteristic that influences beliefs about the ability to improve skills, it should be an important determinant of individual trainability. Internals may exert greater effort towards collecting relevant information in a training situation than Externals. Employees who have an internal locus of control are likely to be highly motivated to succeed in a training program because they believe that mastering the job skills is under their control and within their capabilities. They are more likely to accept feedback during training and to take action to correct deficiencies. They show higher levels of job and career involvement than do employees with an external locus of control.

A study by Broedling (1975) supports the link between locus of control and effort-performance expectancies. Here, internals were more likely to believe that performance was contingent on their personal effort than externals. Applied to a training situation, the results of this study suggest that internals may exert greater effort toward collecting relevant knowledge and skills in a training situation than externals because they believe mastering the program content is under their personal control.

Trainees with an internal locus of control are more likely to act upon feedback regarding their skill strengths and weakness than externals; that is, internals are more likely to exhibit high levels of motivation to learn in a training program. Internals may doubt the accuracy of negative feedback (Stone, Gueutal, & McIntosh 1984).

e) Organizational Learning and Learning of Trainee (E)/Transfer of Training (F)

In the literature reviewed on organisational learning and its impact on transfer of training on the job. No empirical study could be traced on effect of organisational learning on learning of an individual in a training programme. Organisational culture influences the learning and sharing of knowledge and skill amongst the employees. In a learning organisation, the individuals after returning
from training are encouraged to transfer the training on the job. The pre-training environment (Quinones, 1995) and the post-training workplace environment appears to play a particularly important role. Supervisory support for training and organisational support (in the form of formal policy and practices relating to the training) have been shown to influence transfer (Burke and Baldwin, 1999). Workplace social and peer (coworker) support for the training can also influence transfer (Facteau, Dobbins, Russel, Ladd and Kudisch, 1995).

Richman-Hirsch (2001) found trainees who perceived a supportive transfer climate were more likely to use goals to support transfer of skills from a customer service skills training than those that perceived an unsupportive transfer climate. Transfer climate also was found to help explain the relationship between organizational learning culture and perceived innovation (Bates & Khasawneh, 2005), indicating that climate influences other learning dimensions outside of training programs.

Although a few researchers have found mixed findings for the role of supervisory support in positively influencing transfer (Awoniyi, Griego, & Morgan, 2002; Chiaburu & Marinova, 2005; van der Klink, Gielen, & Nauta, 2001), the role of supervisors in influencing and supporting trainee transfer has been widely supported in both empirical and qualitative studies (Brinkerhoff & Montesino, 1995; Burke & Baldwin, 1999; Clarke, 2002). Foxon (1997) found that trainees' perception of managerial support for using skills on the job correlates with increased report of transfer ($r = .36$, $p > .001$). Researchers have identified manager supportive behaviors such as discussing new learning, participating in training, providing encouragement and coaching to trainees about use of new knowledge and skills on the job as salient contributors to positive transfer (McSherry & Taylor, 1994; Smith-Jentsch, Salas, & Brannick, 2001; Tannenbaum, Smith-Jentsch, & Behson, 1998). Lim and Johnson (2002) identified that discussions with supervisors on using new learning, supervisor's involvement in training, and positive feedback from supervisors were forms of support most recognized by trainees as positively influencing their transfer of learning.
Burke, Hutchins (2007) in their integrative literature review pointed out that several researchers have undertaken the challenge of validating comprehensive models of transfer (Holton et al., 2000; Kontoghiorghes, 2004; Tracey & Tews, 2005), thus providing evidence that transfer is affected by multilevel variables (Kozlowski & Salas, 1997). A common theme in current work is the need to view transfer from a systemic (rather than linear) multilevel perspective and to incorporate variables that have been found to have consistently strong relationships with transfer, such as informal learning practices (Enos et al., 2003) and organizational learning culture (Bates & Khasawneh, 2005), to better represent the challenge of transforming learning to performance.

3.4 Conceptual Definition

Training: Short-term process utilizing a systematic and organized procedure by which non-managerial personnel acquire technical knowledge and skills for the definite purpose of performing their present job to the standards set for them.

Learning: learning is defined as a relatively permanent change in cognition occurring as a result of experience.

Training Transfer: It is effective application, generalisability and maintenance of new knowledge, skill and abilities to the workplace, as a result of undertaking an education strategy.

Locus of Control: Rotter (1966) defined locus of control as a generalized expectancy of previewed internal or external control or the degree to which an individual previews events as being control upon his or her own behaviour or own relatively permanent characteristics, which are assumed to be more or less stable under varying condition. Individuals who believe that they can influence outcomes through their own abilities, efforts, skills and characteristics are designated as internal orientation (internals). Those who preview that outcomes are contingent upon external focus such as luck, chance and fate and powerful others or are of the belief that events are unpredictable because of the many complexities in the environment are designated as of external orientation.
Job Satisfaction: Job satisfaction is a condition where employees perceive that their abilities competence and values are put to use in the organization and if they review both. Rewards and further opportunities from the organization, based on their perceived abilities and performance.

Organizational Learning: Organisational learning consists of four major constructs: knowledge acquisition, information, distribution, information interpretation, and organisational memory (Huber 1991).

Training Evaluation: The systematic investigation of whether a training program resulted in knowledge, skills, or affective changes in learners. Gathering of information in order to make a value judgment about the program, such as necessary changes or the possible cessation of the program. Williams (1976) defines evaluation as the assessment of value or worth. Harper & Bell (1982) refer to the planned collection, collation and analysis of information to enable judgments about value and worth. However, as Williams (1976) observes, value is a rather vague concept, and this has contributed to the different interpretations of the term evaluation.

Training Need Analysis: It is a process by which proper organisational training need is assessed through a research. Questionnaire is distributed amongst the members of organisation and training requirements are ascertained to eliminate performance problem.

Objective: It is a statement describing the knowledge or skills that the trainee is to acquire as a result of the training. Setting objective helps us to pinpoint exactly where we are going. The objectives provides a record of conditions that existed prior to doing the training, it also provides a basis for evaluation of the training.

Trainer: Person who conducts training sessions and creates an environment in the class room which is conducive for learning. He becomes the role model. He is
knowledgeable, articulated, experienced and knows the training methods to engage the trainees.

Training Design: Training design means design the training program which includes drawing the objectives of training, decides about the content as per the organisational and individual needs. Training design also includes deciding about the training method, duration and trainer.

Validation: Validation is defined in terms of internal and external validation. Internal validation deals with a series of tests and assessments designed to ascertain whether a training programme has achieved the specified objectives. External validation is a series of tests designed to ascertain whether the objectives of an internally valid programme are realistically based on an accurate initial identification of training needs in relation to the criteria of effectiveness adopted by the organisation.

Training Effectiveness: Training effectiveness is the study of the variables that likely influence training outcomes at different stages (i.e., before, during, and after) of the training process. These effectiveness variables have the potential to increase or decrease the likelihood of successful training outcomes and are typically studied in three broad categories: individual, training, and organizational characteristics.
3.5 Hypotheses

**Organizational Factor**
- Organizational Learning
  - Training Design
    - Trainer's Effectiveness
      - Individual Factor
        - Learning
          - Transfer

**Hypotheses**
- $H_2$
- $H_3$
- $H_4$
- $H_5$
- $H_6$/$H_7$

Fig 3 (ii): Proposed Model of Training Effectiveness
Hypotheses

Following Hypotheses were tested in the study:

H1: Training will lead to significant increase in the knowledge of trainees.

H2: Organisational learning increases the learning of individual from a training programme.

H3: Learning of Trainees in the training programme is directly proportional to design of training.

H4: Learning of trainees in the training programme is directly proportional to trainer’s effectiveness.

H5: Job satisfaction enhances the learning of trainees in the training programme.

H6: Trainees with higher internal locus of control will learn more in the training programme.

H7: Trainees with higher external locus of control will learn more in the training programme.

H8: Transfer of training by experimental group is significantly higher than that of control group.

H9: Organisational learning enhances the transfer of training on the job.