Chapter-4

Review of Earlier Studies

4.0 Introduction

This chapter reviews the studies that have been conducted in respect of both Training Evaluation and Emotional Intelligence. The chapter is organised in the following sequence: The first part reviews the studies carried out on the evaluation of training effectiveness in organisational context. The second part is devoted to studies on effective evaluation of the management development programmes. In third part, the review presents studies on developing emotional intelligence in individuals and organisations as well. Measurement of EI is the focus of review in fourth part. The fifth part presents a brief review of studies conducted in the Indian context.

4.1 Studies on Evaluation of Training Effectiveness

Training function has three phases: Pre-training phase, Training phase and Post-training phase. The post-training phase is taken up in this part. The crux of the post training phase is the evaluation of training. The basic purpose of Training Evaluation (TE) is to improve the quality and quantity of training, trainees, trainers etc. Following is the brief description of the studies on TE that have been carried out in the past.

David L Korb (1956) noted that training could be measured with respect to three sets of criteria. These are: In-course evaluation of participants’ progress, Impact on the participants after training and finally the Impact on the organisation.

R P Lynton and Udai Pareek (1967) recommended training evaluation under three broad phases called the Pre-Training, Training and Post-training phase.
Different tests and instruments were made use of for conducting evaluation in each phase.

Peter Warr (1969) had, for evaluating organisational training, recommended the CIPO framework. He observed that for comprehensive evaluation of training four types of evaluation had to be conducted. According to him, context evaluation, input evaluation, process evaluation and outcome evaluation are to be done for having an idea about the overall impact of training.

Donald L Kirkpatrick (1970) evaluated a training programme for supervisors and foremen at two levels i.e. Reaction and Learning level with the help of pre- and post-tests.

A C Hamblin (1974) classified evaluation into five levels of cause-and-effect chain i.e. Reaction, Learning, Job-behaviour, Organisational improvement and Ultimate value. According to him, evaluation objectives are linked up with training objectives at each of the five stages.

Donald L Kirkpatrick (1976) opined that four stages of training evaluation i.e. Reaction level, Learning level, Behavioural level and Result level should be considered for measuring the effectiveness of a training programme. Reaction level measures what the participants thought and felt about the training and the Learning level evaluation quantifies the resulting increase in knowledge or capability. Behavioural level gives an account of the extent of behaviour and capability improvement and implementation/application whereas the Result level measures the overall effects on the business or environment resulting from the trainee's performance.

Hogarth (1977) had adopted a distinct methodology in his research on evaluation by using a sandwich training course spread over a period of two and
a half years. His study aimed at assessing the effectiveness of training in different circumstances involving managers, trainers and a control group. Impact of the training on learning and job-behaviour formed part of the study.

4.2 Studies on Evaluation of the Management Development Programmes

Any type of training programmes can be evaluated for the purpose of quality improvement. The MDPs are also evaluated for their effectiveness, though evaluating the management programmes in an objective manner is quite challenging. The following evaluation studies were conducted in the area of Management and Supervisory Development Programmes.

Dr. Norman Maier (1961) of the Survey Research Centre of the University of Michigan adapted a scientific approach to evaluate on-the-job behaviour of a human-relations training programme. He made use of experimental and control group and a before-and-after measure of on-the-job performance. The data was also obtained from the trainees’ subordinates. The attitude and opinion survey instruments were designed by the Survey Research Centre.

Alves and Hardy (1963) evaluated the overall effectiveness of training by critically examining:

- attitudes and perceptions of subordinates of trained supervisors measured through Multi-Relational Sociometric survey;
- the feelings of trainees themselves by use of questionnaire;
- the feelings of the trainees’ Supervisors - with the help of questionnaires as to whether changes in trainees’ behaviour had occurred as a result of training.

Underwood (1965) used a novel method of assessing Laboratory Training Method by instructing a set of observers (selected by trainees) to report any changes they perceived in the trainees or controllers’ characteristic behaviour.
patterns. The period of observation covered the fifteen weeks of the course and extended fifteen weeks beyond the end of the course.

Malouf (1966) assessed changes resulting from participation in a one week’s Managerial Grid Program by giving trainees a set of questions before, immediately after and five months after the completion of the Programme. Questions were also sent to trainees’ bosses and subordinates. The interesting finding was that changes were more apparent to trainees’ subordinates than to their bosses.

Abbatielo, A. A. (1967) studied the impact of a 17 day supervisory training course on attitudinal change. The research instrument was a word-association test requiring trainees to rate a given input on a graphic 3 dimensional scale i.e.:

- Evaluation (Good-Bad);
- Activity (Active-Passive);
- Potency (Weak-Strong).

The tests were administered before and after training.

Aston and Gustavson (1970) carried out a unique evaluation experiment spontaneously devised by the course participants during a two-week residential management seminar. Two of the members:

- kept a detailed participant observers’ record and
- distributed a questionnaire to other course members eliciting their views about the contents and also developed a socio-metric measure.

It was revealed that the participants from whom other course members learnt, did not themselves learn much. This study shows the stance of an evaluator during training / learning.
Mahoney (1970) in his research used a pre-and post-test of knowledge, case problems and an attitude scale and compared it with a control group to evaluate a one-week training programme for managers.

4.3 Studies on Emotional Intelligence and Emotional Competence

The following major studies were carried out in the area of Emotional Intelligence, Social skills and Personal competencies which are the essential competencies / qualities of a leader:

Walter Mischel (1960s), a psychologist at Stanford University, distributed marshmallows to the children and tested for their individual “ability to delay gratification”. In this experiment, the ability to delay gratification was seen as a master skill, a triumph of the reasoning brain over the impulsive one. He observed that this master skill was a part of Emotional Intelligence. The marshmallow experiment established that EI matters more than anything else in determining success in life.

David McClelland (1973) argued that traditional aptitude, school grades etc. did not predict how well people would perform on the job or whether they would succeed in life. Instead, he proposed, after doing his experiments, that a set of specified competencies including empathy, self-discipline and initiative distinguished the most successful people from the average ones.

Howard Gardner (1983), while presenting his theory of multiple intelligences, concluded that there were more types of intelligence than traditional Linguistic and Mathematical intelligences. According to his theory, Interpersonal and Intrapersonal intelligences are the most important ones that any successful leader will always have in abundance.

Weatherhead School of Management at Case Western Reserve University (1990s) studied the level of EI in their MBA students and they observed that
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The retention level of the learned competencies was quite high even 2 to 3 years after completing the MBA course.

Martin Seligman (1995) developed and presented a construct that he calls “Learned Optimism”. It refers to the causal attributions people make when confronted with failures or setbacks. In research at MetLife, Seligman and his colleagues found that the optimistic professionals were much more successful than the others. He observed that optimism was an important aspect of EI.

Cooper and Sawaf (1998) carried out a number of studies and opined that in positions of leadership, EQ was absolutely crucial. Emotional & interpersonal ineptitude in leaders lowers everyone’s performance.

McClelland (1998), while studying the leaders in 30 different organisations found that the most powerful leadership differentiators were self-confidence, achievement drive, developing others, adaptability and influence. As a result of this study Johnson & Johnson Consumer Companies enhanced their selection & performance management practices in several ways and enhanced the emotional competency of the organisation & the employees.

David McClelland (1998), while applying “tipping point analysis to competencies”, observed that an individual already having some EI competencies at a level close to the “tipping point” – that level of competency which is sufficient to become outstanding – should make a learning goal to develop those very competencies to the tipping point level or more for achieving success as a leader/manager.

Goleman (2000) et. al of the Consortium for Research on EI in Organisations have enumerated several points to illustrate how much EI contributes to the bottom line in any work organisation. They opine that an emotionally
intelligent organisation is generally an excellent organisation with high profitability.

Dunning (2002) found that the EI skills were essential, not optional, for the leader in the new millennium. He says that Relational Communication & Conflict Management are the two most important aspects of present-day leadership.

Goleman, Boyatzis and McKee (2002), while researching the connection between Leaders' Styles and their level of EI, conclude that there are six distinct styles – Visionary, Coaching, Affiliative, Democratic, Pacesetting and Commanding – of leadership. First four styles are known as resonant styles and the last two i.e. Pacesetting and Commanding styles are the dissonant ones. Their research results show that the leaders who use styles with a positive emotional impact see decidedly better financial returns than those who do not. Moreover, the leaders with best results do not practice just one particular style in all situations. But one important thing is that the dissonant styles, if applied, must be applied with caution and sufficient preparation.

4.4 Studies on Measurement of EI

Everybody is interested to know whether EI / EQ can be measured as objectively as IQ. Following is the brief account of the EI measurement techniques that were experimented and used earlier:

The experts at AIT and Essi Systems Inc. (1996) made a statistically reliable instrument for mapping individual EQ strengths and vulnerabilities and extensively researched and applied it in the USA, Canada and UK. The trade name of this instrument is EQMap. It can assess individual EQ profile quantitatively and pictorially and motivate any person to improve and succeed. EQMap is a self scoring instrument and it has in its “scoring grid” specific 21 factors covering total five areas of EI.
Mayer, Salovey and Caruso (1997), while developing and using an ability based EI assessment model, opine that by testing a person’s abilities on each of the four branches of EI (i.e. Perceiving, Using, Understanding and Managing) it generates individual scores for each of the branches as well as a total score. This test is known as MSCEIT or Mayer-Salovey-Caruso Emotional Intelligence Test which tests for one’s attunement to Social norms. Individual with higher scores indicates higher overlap between his/her individual answers/responses and those provided by a worldwide sample of respondents. MSCEIT is actually based on a series of emotion-based problem-solving items decided upon by these three experts.

Richard Boyatzis, Daniel Goleman et al (1999), while doing extensive and intensive research on EI related concepts as well as its measuring yardsticks, found out a solid instrument, which they named ECI – 1.0 (Emotional Competence Inventory version 1.0), covering total 20 EI competencies under four clusters. The clusters are Self Awareness, Self Management, Social Awareness and Relationship Management. This is a multi-rater instrument for finding out the competencies of an individual and is highly reliable & valid. By this instrument one can decide as to what is the level of various competencies & clusters of an individual. But according to this model, Goleman says the idea of an overall EI is meaningless, because of the fact that some of the competences are conflicting and overlapping in nature.

Fabio Sala (2001) conducted EI Training Programmes for two groups of participants. Group-1 consisted of 20 participants from a Brazilian consumer retail organization and Group-2 of 19 participants from a large U.S. Govt. accounting organization. In both the cases, participants’ emotional competencies where measured twice – once before training and another time after training. The time gap between the two measurements in case of 1st Group was 8 months and that in case of the 2nd Group was 14 months. For both
the groups the programme (Mastering Emotional Intelligence Programme or MEI) was conducted for total 5 days’ duration, but in a phased manner – the three phases being: “Building Awareness” (2 days), “Deciding to Change” (2 days) and “Practicing and Mastering” (1 day). In both the cases the improvement in average ECI scores (as per Goleman Model) was found after the training intervention. For first group, on average T2 scores were 11% more than T1 scores and for 2nd group, average T2 scores were 24% more than the T1 scores. Finally, the MEI programme was found effective in improving EI of the participants. But it is always difficult to isolate the impact of the training intervention versus that of other variables that might have contributed to the higher ECI scores.

Boyatzis, Goleman (2002) and their colleagues at Haygroup, USA while researching and revising their EI measuring instrument ECI – 1.0, observed that the total competencies should be reduced to 18 nos. from the existing 20 nos. They finalized the revised version of Emotional Competence Inventory as ECI–2.0. It is a multi-rater instrument/questionnaire having total 72 questions covering 18 EI competencies forming four clusters. For any individual each EI competency is finally calculated on a five-point Likert scale. For the assessment of EI it is one of the best models/tools available.

Emily A Sterrett (2003), a psychologist has established a tool for assessing EI which is based on 360 degree evaluation including self-assessment. She uses a self assessment questionnaire and a leadership assessment checklist both using the 5-point scale for response to be given by the self, peer, boss, junior, customer etc.

K V Petrides et al (2004) conducted several studies in order to develop a EI measurement tool of high quality. This is a trait-based model for EI assessment generally known as Trait Emotional Self-Efficacy. The exact instrument –
Trait EI Questionnaire or TEIQue – is of self-report type having total 153 questions covering a total of 15 EI related facets. By using this instrument one can know about his/her emotional competencies and go for self improvement.

Reuven Bar-on (2006), a psychologist posits that EI develops over time and that it can be improved through training, programming and therapy. The Bar-on EQ assessment model is a mixed model which is known as Emotional-Social Intelligence or ESI. The Bar-on instrument for EI measurement known as EQ-i is a self report questionnaire that provides an estimate of one’s Emotional and Social Intelligence.

4.5 Studies Conducted in Indian Context
A no. of studies on Training Evaluation and Emotional Intelligence were carried out in India. Some major studies that were held in Indian organisations / institutions are mentioned below:

S K Roy (1980s) of IIM, Bangalore, while evaluating a Supervisory training programme at Ahmedabad Textile Industry’s Research Association (ATIRA). observed that the training should be evaluated against the internal criteria measures of trainee reaction and learning. These two levels of evaluation were done through open-ended interview and subject-matter tests respectively.

B R Virmani and Premila Seth (1985) suggested that the evaluation of a number of items at various phases are necessary. According to them, one has to cover the areas of Context evaluation, Input evaluation, Reaction level evaluation, Learning level evaluation, Job-improvement plan, On-the-job evaluation, Follow-up & transfer for completing the cycle of assessing the training effectiveness. They gave a concept of Learning Index(LI) for presenting a quantitative account of the benefits in terms of learning from any training programme. According to them LI is defined as follows:
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\[ LI = \frac{Post-training score(\%) - Pre-training score(\%)}{100 - Pre-training score(\%)} \times 100 \]

Dalip Singh (1996) compared the personality characteristics – that form the core of emotional agenda – of Indian managers working in public and private sectors respectively. The results revealed a lot of differences in EI between private sector managers and PSU managers.

P V S Sharma (1998) et al of Steel Authority of India Limited introduced Systematic Training Audit as a method of Training Impact Evaluation. They observed that the three systems viz. Auditing, Writing Standards and Networking of Trainers formed a triad of quality improvement system in training. The benefits of the triad of training accrued to SAIL were:

- Continuous improvement of effectiveness of training;
- Linkage of training with needs of the organisation and its employees;
- Development of professional expertise;
- Development of procedure manuals and trainer manuals.

N. K. Chadha (2001), a professor of psychology in the University of Delhi, found out a comparatively simple technique of calculating an overall EQ of an individual. He observed that the “Behavioural Event Interviewing through his structured self-report questionnaire” was an objective tool for EQ measurement. The respondents were required to give their quick and honest behavioural response to some framed work-related situations. By adding the marks (Pre-decided marks are allotted to various possible responses against each question/situation) obtained against all the 15 situations, the overall EQ score for an individual was calculated.

Mansi (2002) of Delhi University, while studying the relationship between EI and decision making ability among Indian managers, found no significant
relation between EI and decision making for the entire sample. The study had two objectives – to determine to what extent emotional intelligence affects decision making among managers and to establish the relationship between EI and decision making, if any. A total of 220 managers of an apex financial institution were taken as the sample for the study. The measure developed by Daniel Goleman was used to assess their EI. To measure the decision-making variable, a questionnaire developed by the Psychology Department of Delhi University was administered. The data were analysed through SPSS package and the results showed no significant co-relation between EI and the decision making ability.

Regina Roberts (2002) of the University of Delhi, in her study on the EQ of the MNC executives posted in India, opined that the high EQ leads to low burnout and high conflict resolution capability of the executives. The specific objectives of the study were – to study the relationship between EI and Burnout and to study the relationship between EI and conflict resolution styles. The sample was drawn from an America-based multi-national company. The subjects included their executives posted in India. EQ was measured with the help of the instrument developed by Prof. N K Chadha of Delhi University. Burnout was measured with the help of the Maslach Burnout Inventory(MBI) and Conflict Resolution Styles (CRS) were measured with the help of CRS constructed and standardised by S P Robbins. After collecting data from the willing respondents, analysis was done using t-test. The results showed that high EQ lead to low Burnout and better conflict resolution capability.

Roopsmita Rajkhowa (2002) of Delhi University carried out a study on the EI of the IAS officers and found that the most of the Administrative service officers had average level EI. The objectives of the study were to make a profile of the EQ levels of the IAS officers and to compare the EQ of the younger officers and that of the older ones. The sample consisted of 60 IAS
officers belonging to the Assam cadre. The sample was further divided into
two groups on the basis of age. The tool used for the study was a structured
questionnaire (EI test developed by Prof. Chadha). The findings showed that
very few officers had high or below average level of EQ and most of them had
average level of EQ. It also revealed insignificant correlation between EI and
age.

Dalip Singh (2003) carried out a research in Indian context to test the
hypothesis that different professions may require different levels of EI. He
concluded that all professions require EI. But some might require more EI than
others. He divided the professions into 3 categories – one needing extremely
high E.I, the 2nd requiring high level EI and the third category that needed
average EI. He also found that different professions might need different levels
of specific EI competencies for the achievement of success.

Dalip Singh (2003) found that the leaders needed higher amount of EI because
nature of their job that called for interacting with a large number of people,
empathising and understanding them. He along with Prof. N K Chadha of
Delhi University found an instrument for measuring the Emotional Quotient.
As per their construct EI was divided into three psychological dimensions such
as emotional competency, emotional maturity and emotional sensitivity.
Emotional competency constitutes the capacity to tactfully respond to various
emotional stimuli. Emotional maturity constitutes evaluating emotions of
oneself and others. Emotional sensitivity constitutes understanding threshold
of emotional arousal. Their valid and reliable instrument was a questionnaire
based on “Emotional Event Interviewing” and it contained 15 questions. This
test could find out one’s EQ in a quantified way.
4.6 Conclusion

On the basis of the review of these studies it is evident that there are comprehensive literature support and well laid-out conceptual framework for the training effectiveness evaluation in general as well as the comparatively newer field of Emotional Intelligence. But the literature available so far for evaluating the management programmes is comparatively weak. The existing concepts & methodologies for effectiveness study of the MDPs in general and the Management Development Programmes meant for the development of attitudes and social skills in particular are mostly subjective in nature. Rather the various measurement tools available for the assessment of Emotional Intelligence are much more focused and concrete. There is clear gap in the existing literature on MDP evaluation in respect of its objectivity and quantification. Effectiveness evaluation of the MDPs is crucial for the improvement in quality of the MDPs in terms of their contents and methodology. It is an essential pre-requisite to any Organisational Development effort. Review of research on MDP evaluation indicates that the absence of objectivity and quantification in MDP evaluation needs to be addressed.

There is need for more studies on evaluation of the MDPs so that their evaluation could be carried out in an objective manner. This can then become the basis for designing much better MDP evaluation model. This study attempts to address the existing problem of MDP evaluation by identifying some suitable emotional competency measurement tool and using the same for the effectiveness evaluation of the Management Development Programmes in an objective and quantifiable manner.