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## Problem Solving Design for Emotional Intelligence Training of Middle Managers

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### Abstract

In general, EI (not only emotional perceptions of others, but self-concept, influence, relationships and self-management) is regarded as important for managers. Is it possible to develop EI through competency based EI training in problem-solving design? The purpose of this study was to explore and evaluate a training programme designed to improve the ability of participants to solve working problems related to EI. The participants were 64 middle managers of a production company, banking and investment sectors. This Problem Solving Training Approach employed case studies, group dynamic exercises and a 360 degree questionnaire used as an EI diagnostics tool. Our results suggest that EI components, such as self-concept and self-management, can be improved through the Problem Solving Training Approach. This training design was found to be especially effective for improving self-management as EI competence. Most existing approaches to emotional intelligence training are focused on the emotional perceptions of others. Self-concept, self-management and regulating the emotions of others tends of be overlooked. In our study, the Problem Solving Approach is proposed as a design for EI training and evidence attesting to its effectiveness with regard to self-understanding and emotional regulation was found.

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**Keywords:** Emotional Intelligence; Training; Training Evaluation.

### 1. Introduction

Emotions are necessary in the workplace (Barsade & Gibson, 2007). A number of psychological researchers have suggested that highly effective employees are higher in emotional intelligence (EI) (Daus & Ashkanasy, 2005). Middle manager communicates with employees, with senior managers and with peers, so he must demonstrate high emotional intelligence skills. Although it is might seem

obvious that EI should matter in the workplace and that EI training might be important, there are contradictory opinions expressed in the literature (Daus & Ashkanasy, 2005).

A major limitation of existing EI training programmes is that they do not target the regulation of self-emotions and most of training schemes overlook most aspects of EI. As such, there is considerable space for the development of new approaches focused squarely on the abilities that should matter in the workplace. This paper reports the outcomes of these efforts.

For training purposes, the following components of EI are thought to exist. Firstly, EI includes the ability to perceive emotions in oneself and others (Matthews, Zeidner & Roberts, 2003). Secondly, EI reflects the ability to know the moment of transition from one emotion to another. Thirdly, EI encompasses the ability to handle emotional situations. Can this set of abilities be measured by self-report? There are arguments against the efficacy of self-measurement in EI (Daus & Ashkanasy, 2005). These arguments primarily stem from the fact that most measures of EI have significant overlap with measures of personality traits. Such overlaps might be avoided by focusing on ability-related assessments rather than self-reports (Meyer et al., 2008).

## **2. Problem Statement**

The concept of EI first emerged in the management literature around 2008 with the promise that EI would facilitate more effective organizational management approaches and greater productivity because it would make possible to manage the emotions of employees (Mayer, Roberts, & Barsade, 2008). Requests for EI training courses and workshops increased dramatically and a number of more or less effective EI development programmes appeared shortly thereafter. Training design practitioners usually have limited control over the choice of skills to be trained. The skills that are generally required for job-related training usually fall within the domains of cognitive, interpersonal and psychomotor skills (Arthur, Bennett, Edens, & Bell, 2003).

Interpersonal skills, like sales and customer care skills, management and leadership skills, communication and conflict management skills, are taught in training programmes independent of EI. Internal Human Resource Department assesses training needs and specifies training objectives. Trainers and practitioners are free in developing training design, delivering training style and method, but they are quite limited in setting training objectives. The effectiveness of training often depends on the complexity of skill to be trained and the training methods (Wexley & Latham, 2002). Interpersonal skills are usually considered in the course of EI training, and often are presented in conjunction with conflict management skills. The ability-related approach to the problem of the EI development, especially in the work context, reveals the necessity to consider emotional competence as a set of social skills.

Emotional competence is set of social skills useful for recognizing, interpreting and responding to emotions in oneself and others. These skills enhance our personal, relational and professional performance. As a learned ability grounded in EI, emotional competence enhances our general satisfaction with life. General emotional competence comprises abilities related to understanding oneself (intrapersonal) and others (interpersonal), relating to people (interpersonal), adapting to changing environmental demands (adaptability), and managing emotions (stress management) (Bar-On

& Parker, 2000). Emotional awareness, assertiveness, self-actualization and independence are abilities representative of intrapersonal skills. Empathy, social responsibility and interpersonal relationship abilities are considered interpersonal skills. Adaptability skills include reality testing, flexibility and problem-solving abilities; while stress tolerance and impulse control are abilities that are included among management skills. The structural components of emotional competence (Saarni, 1999) include the following: (a) being conscience of our own emotional states; (b) the ability to recognise and understand the emotions of others; (c) the ability to use a proper vocabulary for expressing emotions; (d) empathy; (e) the ability to understand that inner emotional states do not necessarily correspond external realities; (f) the capacity to manage stressful emotions using self-regulation strategies; (g) the awareness of emotional nature of relations or communications; and (h) the capacity to accept emotional experiences and to develop a feeling of self-efficacy.

Given the possibility of training the above-mentioned social skills and gauging the effectiveness of training programmes, it is important to identify the criteria by which the training will be evaluated. The most popular model of training effectiveness evaluation is the model proposed by Kirkpatrick (1996), consisting of four levels of evaluation: reactions, learning, behaviour and results. The reaction, learning and behaviour criteria are operationalized by way of self-report measures, affective and attitudinal responses to the training programme, cognitive self-reports, performance testing, and supervisor ratings. Usage of Return of Investment (ROI) calculation operationalizes result criteria.

### **3. Research Questions**

On the basis of the issues raised in the preceding sections, this study addressed the following questions:

1. How effective are the specified EI training methods according to the Kirkpatrick model?
2. How should the results of EI training be measured in the workplace?

### **4. Purpose of the Study**

Despite the present high demand for EI trainings schemes, not all training programmes appear to be effective in terms of increasing EI-related behaviours in the workplace. The purpose of the study was to explore and evaluate a training programme, the Problem-Solving Training Approach, designed to improve the ability to solve problems related to EI in the workplace.

### **5. Research Methods**

A group of 64 middle managers (37% female; mean age = 35 years; average years of experience in their current position = 6 years) were assigned to the evaluation process and training. A training needs analysis was conducted with potential participants and their superiors. An interview and questionnaire revealed work-related problems requiring the development of EI. It was found that the biggest issues relating to EI were situations requiring high levels of emotional self-management. A training programme was designed based on the Problem-Solving and Decision-Making Scheme, and included root cause analysis, alternatives, risk assessment, etc. The self-completed training evaluation form

assessed the effectiveness of the training, the results interpreted according to the Kirkpatrick model for Reaction, Learning and Behavior levels. The results were assessed using a 360-degree evaluation, 3 months after training. On the basis of the 360-degree evaluation action plans for future development, we prepared several coaching sessions. The 360-degree evaluation method consists of self-report, evaluation by superior, evaluation of subordinates and comments from peers. Each participant was given the results before training.

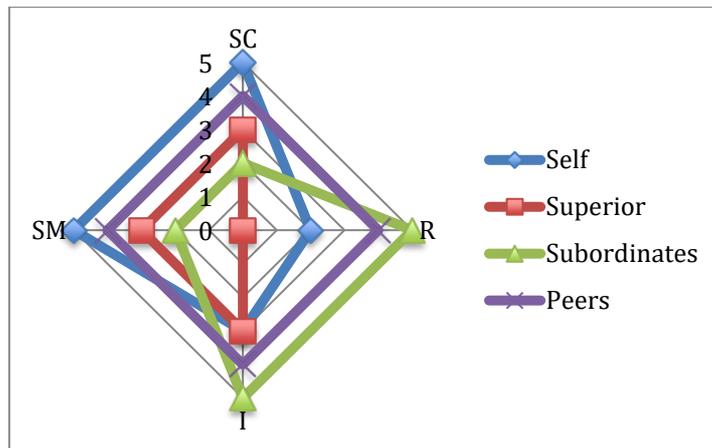


Fig. 1. EI Map for Participant

A 60 item EI in the working place questionnaire was designed. This questionnaire was inclusive of four scales: self-concept, relationship, influence and self-management. Responses were recorded on a 5-point Likert scale (0 = *Strongly Disagree* to 4 = *Strongly Agree*). Short version of the questionnaire for subordinates and competency based interview for superiors were used. The questionnaire also included demographic questions that addressed the respondent's age, gender, job rank and type of occupation. A work experience study was conducted using the developed questionnaire and administered to a sample of 64 participants. Following factor analysis, the results of the reliability study are summarised in Table 1.

**Table 1.** EI questionnaire scales

Subscales	Coefficient
Self-concept	.922
Relationships	.836
Influence	.901
Self-management	.941

## 6. Findings

The first study examines training effectiveness of emotional intelligence within the cognitive scheme of training. A correlation analysis identified how effectively the various elements relate to each other and to the cognitive design of the EI training programme.

**Table 2.** Inter-relationship between various factors of the overall training effectiveness and training design

Variables	R	L	B	C
R	-			
L	0.427**	-		
B	0.504**	0.593**	-	
C	0.291**	0.550**	0.604**	-

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
 (R = Reaction, L = Learning, B = Behavior, C = Cognitive )

The results of the correlation matrix highlight a significant relationship between different factors contributing to overall training effectiveness. A significant small positive relationship exists between reaction and cognitive training design, reaction and learning. A significant medium positive correlation was found for behaviour and reaction, behaviour and learning, and cognitive design and learning. A significant strong positive relationship was observed between behaviour and cognitive design. The existence of a significant association between these various training effectiveness lends itself to inferring that these factors are positively associated with each other and that they make a significant contribution toward overall training effectiveness.

The second study examines the cognitive approach to subscales of emotional intelligence training evaluated by way of the 360 degree tool. A correlation analysis identified how the various EI subscales—self-concept, relations, influence and self-management—related to one another and to the cognitive design of the EI training.

**Table 3.** Inter-relationship between various factors of the overall 360 degree evaluation and cognitive design

Variables	SC	R	I	SM	C
N = 64					
1	-				
2	0.634*	-			
3	0.529	0.450	-		
4	0.742*	0.380	0.520	-	
5	0.980**	0.831*	0.462	0.933**	-

\* . Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above table shows that the cognitive design of the EI training was highly correlated with the self-concept and self-management subscales of EI. This result shows that skills developed during EI training are transferable into work life. The cognitive approach was moderately correlated with the relationship subscale. No significant correlation was found with the influence subscale. The existence of a significant association between the various elements of EI assessment shows that the cognitive approach to EI training is effective. Situations which were considered in the training during group cases and individual assignments motivated the participants to develop skill in exploring emotional situations, solving problems by identifying the root-cause and by way of risk analysis, identifying and selecting alternatives.

It was found that a clear self-concept and an awareness of one’s own emotions are preliminary factors necessary for relationships, and for understanding the emotions of others as well as

management of emotions (Kim, 2016). Notwithstanding, another type of EI training is likely to be required with respect to relationships and the management of tasks in the workplace.

## 7. Conclusion

Concerning the choice of training methods for EI skills and tasks in terms of work-related effective behaviour, our results suggest that problem-solving training design is effective. We highlight the effectiveness of cognitive approaches to problem-solving training in order to develop the self-concept and self-management elements of EI. This finding confirms ideas around the interpersonal and intrapersonal nature of general emotional competence (Bar-On & Parker, 2002). Though our results do not provide information on exactly why a cognitive design of EI training is more effective than others, future research should attempt to identify what attributes of a method impact the effectiveness. Along these lines, future research might consider the effectiveness and efficacy of high-technology training methods, such as computer-based training.

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