Can experiential learning improve emotional intelligence and can that, in turn, improve the work performance of middle managers?

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ABSTRACT

A group of middle managers in the Australian arm of a large Global company participated in a program of experiential leadership training over a period of one year. One aim of the program was increased interpersonal skills and awareness. Change was measured using a mixed quantitative and qualitative longitudinal design. Pre and post-training measures of emotional intelligence were obtained using the EIQ (Dulewicz & Higgs, 2000) and compared with content analysis of journals kept by participants during the program. The dependent variable was measured by pre and post-training measures of work performance. Findings are discussed in terms of their implications for management development as well as for further research.

Keywords: Management Training, Emotional Intelligence, Experiential Learning.
INTRODUCTION

Change scholars suggest that where organisations are out of alignment with their environment the urgency for adjustment leaves little time for extensive participation in decision-making. Consequently, effective organisational change depends on the leadership of executives, who must apply a charismatic style to secure commitment to the new business model in the short term, with the longer-term goal, of encouraging an organisational culture, that strengthens continuing high performance, in the repositioned organisation (Dunphy & Stace, 1990; Rummler & Brache, 1995; Stace & Dunphy, 1996). Development of people management skills is thus of strategic importance. (Pfeffer 1998).

In Australia, organisations spent $4,018.2 millions, gross, on structured training and development, during the 2001 – 2002 financial year (ABS, 2003). It seems reasonable then that training and development, particularly at management level, should be held accountable for the best possible outcomes, both in individual development and in consequent organisational performance. One area where considerable training investment is currently being attracted is emotional intelligence (EI) (Caruso and Salovey, 2004). Although an array of claims have been made by consultants on the importance of EI in leadership, performance and success (eg, Caruso & Salovey, 2004; Goleman, 1995) and the ability to improve EI through training, little empirical evidence is available which can be used to assess the validity of these claims (Jordan & Troth, 2004).

This paper presents the results of an evaluation of the effectiveness of experiential learning, during a leadership development program, in promoting greater emotional intelligence, among a group of managers in the Australian arm of a global engineering company. In addition to contributing to an understanding of how or if EI can be trained, the research also provides information on the link between EI and managerial performance. The research is a component of a larger longitudinal evaluation of the efficacy of the program in achieving its aims. The intention is to pursue excellence in delivery of learning outcomes through evidence-based and reflective practice (Schon, 1983). The researchers also hope to be able to contribute to the body of knowledge on management learning.
Emotional Intelligence

Emotional intelligence was introduced as a concept by Salovey and Mayer (1990) and defined by them as… “ability to monitor one’s own and others emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (Mayer and Salovey, 1993 p.433). This definition has continued to receive empirical support (Jordan, Ashkanasy & Härtel, 2003) and accordingly is adopted in this paper. It is important to note that the construct has not been received without criticism. Becker (2003) for example offers two important criticisms of EI. First he questions the distinction of emotional intelligence from general intelligence directed at emotional phenomena. He cites evidence (Carroll, 1993) indicating that factor analysis of all relevant data collected in the twentieth century failed to reveal any broad mental ability independent of Spearman’s G. (Spearman, 1923). Jordan et al. (2003) respond that some time has elapsed since Carroll’s (1993) analysis, and that there have been advances in understanding the emotional intelligence construct and its potential to inform understanding of intelligence in work settings. They also point out general acceptance of the Mayer and Salovey (1993) definition of the construct among researchers, as step towards its more consistent operationalisation.

Becker’s (2003) second criticism argues that the case for measuring the construct of EI is weak. He cites low reliability across purported measures reported by Davies, Stankov and Roberts (1998). He also notes that factor analysis, performed by the same authors, demonstrated that reliable emotional intelligence items, with the exception of emotional perception, loaded on established personality factors, indicating that, they were functionally indistinguishable. Emotional perception was problematic in seeming to be orthogonal in its relationship to established measures of intelligence. This criticism appears to pose problems for our use of self-report measures in the current study. However Jordan et al. (2003) respond by pointing out that Davies et al. (1998) based their conclusions on early measures of the construct lacking rigour of more recent ones. The measure used in the present study has good psychometric properties and is recommended and distributed by the Australian Council for Educational Research. It was selected as the best available for commercial use.
Experiential Learning

Experiential learning occurs when the subject matches the interests of the learner. It is generally self-initiated at a time when the learner experiences a ‘readiness’ to learn (Rogers, 1969, Rogers & Freiberg, 1994). Rogers (1969) distinguishes it from cognitive or didactic learning, which is more formal in its organisation and more likely to occur in a classroom setting and to be concerned with concepts, theories, models and the like. Experiential learning involves a direct encounter with the phenomenon to be understood. The learner reflectively observes this experience in order to generate abstract concepts or theories that may be tested in new situations. This forms a cyclical process (Kolb, 1976), out of which, learning from problem solving is incorporated into cognitive schema through assimilation or accommodation (Kolb & Fry, 1975). Such learning is likely to impact on the way that an individual construes the world. It is often associated with emotion (Combs, 1982) and contiguous with change (cf. Rogers, 1969), that can produce insight, at a tacit level, not available using didactic approaches. In this paper, the term ‘experiential learning’ is used to describe the approach taken in conducting management development workshops.

Action Learning

Action learning describes an approach to management development pioneered by Revens (1998), in which a small group of managers form a ‘learning set’ to tackle an organisational problem over a period of about six months. Typically membership of the group is drawn from different organisations so that there is a mix of experience, and the problem is one that is unfamiliar. Revens stresses that there should be an element of personal risk attached to failure to solve the problem. Group members learn what they need to, as and when such knowledge becomes essential to success in their projects. The approach to learning has much contemporary currency as an approach to leadership development (Marquardt, 2004; Schaffer, 1991). It is also used in other areas, such as higher education, where it is referred to as ‘problem-based’ learning and ‘student-centred’ learning (Glasgow, 1997). The nature of the learning corresponds closely to the principles of experiential learning, being motivated by a ‘felt need to learn’ and accomplished through reflection on experience. Such habits are referred to as reflective practice (Schon, 1983). The key difference the learning set (group) is
motivated by completion of their project and manages their acquisition of knowledge, as required, without overt facilitation.

The organisation studied is large enough to be able to form teams from across a diverse range of businesses. The problems assigned to teams are framed as projects with agreed outcomes ‘breakthrough goals’ (Schaffer, 1991), that directly relate to business performance. Such project work formed a key component of the leadership development program. It is referred to, in this paper, as ‘action learning’.

**Method**

The organization being studied in this research is the Australian arm of a global organization in the process of transforming its business focus, from engineering, to sales and service. Systematic efforts to effect cultural change offered a naturally occurring field experiment (Dunnette, 1976) in which a management development program was enlisted as a change intervention.

**Sample Selection and demographics**

The sample consistent of thirty-eight middle managers selected by the organisation, for management development, on the basis of being identified as high potential employees during their annual performance evaluation. This means they were regarded, by their supervisors, as capable of working effectively at two levels higher than their present organisational level. Due to attrition of one participant, data were collected from the remaining thirty-seven.

All but three of the participants were male. Their age ranged from 20 to 47 with an average of 35 years. Their educational background ranged from apprentice training, through technical college training, to undergraduate and graduate study at University. Their work experiences also ranged widely but the dominant backgrounds were in electrical engineering or in accounting.

The context of the study was an experiential learning program within the management leadership program of an Australian subsidiary of a multinational engineering firm. A brief description of the overarching program and its experiential component follows.

**Action Learning**

Management development programs in the participating organisation are structured around a core of action learning in which small teams spend about a year engaged in project work negotiated
with top management. The theoretical underpinning for the use of such action learning projects is based in the work of Schaffer (1991). In this approach, teams meet regularly to plan their activities and work collaboratively to achieve “bottom line’ success for the company. Team members gain important, and sometimes tacit, managerial insights during the life of their projects. Among these insights, learning about group and team dynamics is deemed to add to the individual’s leadership skills.

**Experiential Learning.** During the program, participants attended four workshops, devoted to management topics, and spaced approximately three months apart. They were designed to impart important skills and insights that can be employed directly in the project work and equip participants for advancement in management positions. The first of the workshops was experiential and focused on organisational behavior but with the important sub theme of team building. Participants engaged in a number of games and simulations designed to model the dynamics of inter-personal and inter-group problems apt to arise in organisational life.

The hypotheses under investigation in this study were:

**Hypothesis 1:** Pre and post course scores on the EIQ will demonstrate a significant change in emotional intelligence.

**Hypothesis 2:** Qualitative analysis of participants journals kept over the life of the program will indicate change in awareness of emotional issues.

**Hypothesis 3:** Pre and post course work performance indicators will change in a positive direction.

The criterion measures for assessing changes in emotional intelligence were the individual scores on a quantitative instrument, the Emotional Intelligence Questionnaire (EIQ) (Dulewicz & Higgs, 2000) and textual analysis of participants’ entries in their personal journals. These measures are described next.

**Measures**

**Emotional Intelligence Questionnaire (EIQ).** The EIQ is designed to measure self-awareness, emotional resilience, motivation, interpersonal sensitivity, influence, intuitiveness, and conscientiousness as dimensions of emotional intelligence. Subscales show adequate reliability (Cronbach, Alpha = .56 – .77) and good validity when compared with supervisor’s ratings of managers
**Personal Journals.** Participants were invited to maintain personal journals during the life of the program. They were asked to write about their reactions to their learning and, in particular to relate their learning to their day to day experience at work. These journals were collected for analysis at the end of the program.

**Annual Performance Reviews.** Performance review data were obtained immediately prior to the program and, again, after it had finished. Performance review records available pre course included a series of five-point scales related to business performance drivers. Unfortunately, during the year the format of performance review records was changed. The scales were removed, but comments on individual’s performance were retained. This permitted a qualitative comparison between pre and post course performance.

The new form included a four-point global rating scale, which allowed a broad comparison, with aggregated five point scales from the previous reviews. It retained a direct focus on business outcomes for which the individual concerned could be held accountable.

**Procedure**

The pre-course EIQ was completed during the week prior to the first workshop. The second EIQ was administered one week before the final workshop. Thus, the study spanned a total of fifty weeks. Journals were examined and text-scanned for frequency of emotional words or concepts. Occurrence of passages describing self awareness, emotional resilience, motivation, interpersonal sensitivity, interpersonal influence, intuition and conscientiousness (Dulewicz & Higgs, 2000), across time, were noted and their frequency assessed.

Pre and post course management performance data obtained from the company were content analysed for frequency of positive supervisor comments. The nature of performance outcomes described in the reviews was also compared. This quantitative analysis was supported by evidence of subsequent promotions and work assignments as well as by global ratings made by supervisors.

**RESULTS**

A total of 37 usable responses from trainees (one person’s data file was not available at the time of analysis) were obtained. The learning outcomes were assessed by examining the difference
between pre- and post-training EIQ scores and changes across time observed in participants’ Journal entries.

**Pre and post test EIQ Scores**

Prior to undertaking the analysis, data were examined to confirm that they were normally distributed. Missing values were replaced with the series mean, which makes a minor difference to results. ANOVAs were performed on Sum 1, Sum 2 and Sum 3. These are, respectively, the sum of the emotional intelligence components for pre-training, post-training, and observers scores. A significant difference was found between pre and post-training scores (6.8, p = 0.001).

**Table 1 ANOVA results for pre and post test scores on the EIQ.**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>21.843</td>
<td>5</td>
<td>4.369</td>
<td>5.759</td>
</tr>
<tr>
<td>Within Groups</td>
<td>24.274</td>
<td>32</td>
<td>.759</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>46.118</td>
<td>37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Personal Journals**

Content analysis of personal journals enabled triangulation with the quantitative analysis of EIQ scores. Participants displayed increased frequency of emotional words or concepts as well as greater awareness of self and others.

**Pre and post training performance reviews**

Comparison of pre and post course performance data suggests considerable increase in managerial performance outcomes rated by supervisors. This is reinforced by a number of positive work reassignments as well as global performance ratings made by supervisors.
DISCUSSION

This paper reported on a longitudinal field study undertaken to assess the efficacy of experiential learning in enhancing the emotional intelligence of participants. An important design component in the study was a comparison between employee performance ratings immediately prior to commencement and ratings obtained after conclusion. These performance ratings are carried out, on an annual basis, in the form of a ‘dialog’ between the individual and his or her supervisor. The process has important consequences, namely, whether one is identified as a ‘high potential’ manager, assigned to a high profile or developmental role in the company, or get accelerated career progression.

The results indicate a significant change in scores for emotional intelligence following an experiential learning program. Evidence for the change is also provided by an increase in the number of emotion specific words used in journals as well as by increased use of emotion related concepts and constructs. These findings support those of earlier studies, which indicate that it is possible to learn EI techniques and improve EI skills (Dulewicz & Higgs, 2000). The findings also provide additional evidence for the relationship between emotional intelligence and team success observed by Yost and Tucker (2000).

A number of potential limitations are posed by the relatively small sample size (N= 37) of the study. These include not only the generalisability of the results but also the types of analyses that could be conducted. Triangulation of these data with the qualitative data from participants’ journals, however, provides further confidence in the findings. A limitation of the study is the nature and composition of the sample elected from ‘high potential’ candidates who may express the dominant organisational culture and so may be least likely to embrace change. On the other hand, an important strength of this research is that it is grounded in the experience of real practicing managers rather than less experienced students of management.

Journal keeping seems, despite initial difficulty, to have become an important medium for reflective learning. Further research may be directed to understanding the relative efficacy of techniques and approaches to more effectively foster the discipline among participants. Many commented, in their journals, that they regretted not spending more time on their personal reflections.
CONCLUSION

The experiential learning program was successful in achieving change in emotional intelligence. This supports the use of experiential learning about interpersonal and group skills as a medium for developing EQ. The consequent improvement in manager’s work performance supports the idea that EQ is an important organisational skill. The value of these results is limited by the small sample size; a necessary consequence of the organisational level of participants and the cost of such training. However the journal data provides qualitative support for the statistical results. In addition to contributing to an understanding of how or if EI can be trained, the research also provides information on the link between EI and managerial performance. Comparison of pre and post-performance evaluations provided compelling evidence that appropriate methods of training, targeted at high impact capacities, can have a direct effect on management capacities and business outcomes.

REFERENCES


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