

# **The Efficacy of Training in Relational and Behavioural Skills: Links to Emotional Intelligence**

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# The Efficacy of Training in Relational and Behavioural Skills: Links to Emotional Intelligence

## **Abstract:**

Australian organisations continue to offer relational training interventions designed to change employee behaviour within the workplace. However, the success of these programs is often determined through asking supervisors to report on individuals' behavioural changes rather than obtaining proof of their effectiveness. The purpose of this research is to measure the success of training programs offered by a Queensland Public Sector organisation following Kirkpatrick's (1977) model of providing proof of behavioural change after training. In particular, this research measures the emotional intelligence of individuals undertaking these training programs to determine whether emotional intelligence actually increased because of the training. The preliminary findings reveal that a significant increase in the emotional intelligence of individuals occurred after they had completed these training interventions.

(120 words)

**Key Words: Emotional Intelligence; Training**

## **Introduction**

Relational and behavioural training interventions designed to bring about changes in employee behaviour within the workplace are commonplace in Australian organisations. While there is often much anecdotal evidence as to the benefit of these training interventions, proof of actual skill improvements are not always measured. The focus of this research therefore, is to follow the suggestions of Kirkpatrick (1977) who contends that obtaining proof of the success of behavioural training interventions requires three elements. Firstly, participant's skills and behaviour should be measured prior to the commencement of training. Secondly, after the training has been completed, the participant's skills and behaviour should again be measured and compared to the pre-test. Finally, to ensure that any changes occurred as a result of the training interventions, proof should be gathered to show that there are no other factors that could have contributed to the change measured.

This paper presents the preliminary results of assessing the improvement of emotional intelligence skills in a group of employees from the Queensland Department of Main Roads. Each of these employees participated in an in-house training program designed to enhance their relational, behavioural and emotional skills. Participants completed an emotional intelligence measure both at the beginning of the training program, and again after the training had been completed. The preliminary results of these measures show that there was a significant improvement in the emotional intelligence of individuals from the pre-test to the post-test.

## **Emotional Intelligence**

Mayer and Salovey (1997:5) define emotional intelligence as “the ability to perceive accurately, appraise, and express emotion; the ability to access and or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth”. Mayer and Salovey (1997) have continually updated and enhanced this definition since the early 1990’s and have described this definition as the Four-Branch Model of emotional intelligence (Mayer, Salovey, Caruso, & Sitarenios, 2001).

The first of these branches is accurate appraisal and expression of emotion (Mayer & Salovey, 1997). This dimension of emotional intelligence comprises of emotional self-appraisal and gauging the emotions of others. Additionally this branch also includes the ability to perceive false expressions of emotions (Abraham, 1999; Mayer & Salovey, 1997). Just as every individual has a different level of self-awareness, appraisal and emotional expression, the same can be said for each individual’s ability to appraise the emotions expressed by others (Zhou & George, 2003).

The second branch of Mayer and Salovey’s (1997) emotional intelligence model is facilitation of emotions. Facilitation of emotions describes an individual’s ability to generate emotions to facilitate thought (Mayer, 2001). Individuals who have a high level of emotional intelligence are successfully able to alter their own emotions in assisting information processing (Zhou & George, 2003).

The third branch of emotional intelligence is understanding emotions or emotional knowledge (Mayer & Salovey, 1997). This factor highlights an individual’s ability to understand emotions that aid intellectual and interpersonal growth (Jordan, Ashkanasy, & Hartel, 2002). An understanding of emotional knowledge assists individuals to recognize how emotions can blend and also change over time (Mayer, Salovey, & Caruso, 2000). Individuals who have high levels of emotional intelligence understand the causes of emotions, as well as their consequences for themselves and others (Zhou & George, 2003).

Finally, managing or regulating emotions to help in problem solving is the fourth branch of Mayer and Salovey’s (1997) emotional intelligence model. Clearly, unmanaged emotions can compromise effective decision-making (Zhou & George, 2003). The ability to manage emotions entails the ability to regulate and control emotions as well as the ability to influence the emotions of others (Mayer & Salovey, 1997).

## **Emotional Intelligence and Relational and Behavioural Skills**

Mayer and Salovey (1997) have identified that the skills and abilities of the emotional intelligence construct contribute to enhanced relational and behavioural skills of individuals. An example of this can be seen in the work of Martin, Knopoff and Beckman (1998) who report that organisational relationships can be maintained through regulation of emotions. Furthermore, Mann (1999) states that facilitating emotions can actually enhance relationships between organisations and their internal and external clients. The opportunity to measure the link between emotional intelligence and its contribution to relational and behavioural aspects of work thought training within this study will therefore provide further evidence to support and extend existing research.

## **Organisational Background**

During the late 1990's a combination of both internal and external demands saw a change in the way that the Queensland Government sought to conduct their business. The focus had moved from viewing their business focusing on structure and systems (Wheatley, 1992) towards supporting the need for both relational and behavioural change in order to achieve their strategic goals. The Department of Main Roads was no exception to this move for change.

Three specific relational training programs that are now offered to employees within the Department of Main Roads are the Experiential Leadership Development Program (ELDP), Futures in Leadership Program (FIL) and the Journey into Leadership program (JIL). The ELDP is a program targeted at senior members of the Department. The Futures in Leadership Program is offered to staff predominantly across the middle management scales of the organisation. Finally, the Journey into Leadership Program is available to lower classification employees below middle management. The sample for the study outlined in this paper were drawn from participants of the JIL program.

The JIL program has eight core goals. These goals are firstly, to introduce participants to current models of organisational leadership; secondly, to increase participant's self-understanding in an organisational context; encourage self-responsibility, particularly in the areas of relationships with others and the management of self and career; develop human interaction skills, focusing on the individual and group; enhance clarity, direction and harmony in the workplace; assist with the development of a learning culture within the organisation; build networks across work teams, departments and the organisation itself; and finally to accelerate the process of change within the organisation.

The design of the JIL program focuses upon imparting skills through an experiential process (Kolb, 1984). As part of this aim, a series of theories to support the experiential learning process have been incorporated into the program. The purpose of including theory within the program is to assist participants in abstracting meaning and useful generalisations to take away for their own use. The theories incorporated into the JIL program include: self-awareness (Covey, 1990; Goleman, 1995, 1998; Senge, 1990); leadership theory (Wheatley, 1992); personality preferences (Briggs-Myers, 1998); and balancing work and non-work (Bloom, 2001).

## **Measuring the Success Main Roads Training Programs**

The relational and behavioural programs outlined above play an important role in Main Roads employee development. While the journey on each program may be different, the intended outcomes are the same – to foster an understanding of people, relationships and behaviours, and how these behaviours impact upon the work undertaken by individuals within the organisation. However, as is the case in many organisations, these training programs have not as yet been sufficiently evaluated to provide proof of actual changes in individual's behaviour. At present, feedback on the effectiveness of training within Main Roads is anecdotal, coming from peer and managerial feedback.

According to Kirkpatrick (1977), this is the case in many organisations. In general, training effectiveness is gauged from feedback from the individuals who participated in the training program, their peers and supervisors to determine the skill improvements that have occurred. This is the case at present within the Department of Main Roads where managers, supervisors and the participants themselves report the changes in behaviour they have experienced in the workplace, resulting from the training undertaken. Kirkpatrick (1977) contends that these individual responses only provide evidence and that in order to obtain proof of change several additional steps need to be followed.

The first of these is to administer a measure of behaviour before the training program is undertaken. The second step is to then measure the behaviour of individuals after the training program has been completed. Finally, and perhaps the most difficult step in providing proof of changes in behaviour is to prove that any changes that have been measured in behaviour from the pre-test to the post-test are actually due to the content of the training program and not because of other external factors (Kirkpatrick, 1977).

This paper reports the preliminary results of a study that intends to follow the framework proposed by Kirkpatrick (1977) in order to provide proof that improvements in emotional skills have occurred as a result of the content and delivery of the JIL training program. In this present study, steps one and two of Kirkpatrick's (1977) model have been followed, with the third stage currently in progress. The method and preliminary results are presented in the following section.

## **Participants**

The participants in this study were 40 employees of the Queensland Department of Main Roads who attended a four-day relational, behavioural training program over the period February to May 2004. The average age of the respondents was 35.53 years (ranging from 21 to 54 years) with 55% being female. Participation in the study was emphasized as voluntary at all points, with participants incurring no penalties for withdrawing from the study at any time.

## **Emotional Intelligence**

Emotional intelligence was assessed by asking participants to complete the self-reporting section of the Workgroup Emotional Intelligence Profile – Version 6 (WEIP6: Jordan, 2000). A self-reporting measure of emotional intelligence was chosen for two reasons. The first was that more complex measures such as the MSCEIT (Mayer, Salovey, Caruso, & Sitareneos, 2001) were time consuming to administer. The measure employs a 7-point response format ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) with items encouraging reflection on one's own behavior such as, "I am aware of my own feelings when working in a team", and "I am able to describe accurately the way others in the team are feeling". The WEIP6 captures the two dimensions of emotional intelligence: Ability to Deal with Own Emotions (Scale 1: 17 items) and Ability to Deal with Others' Emotions (Scale 2: 12 items) discerned by Jordan et al. (2002). Alpha reliability coefficients of .83 (Self) and .88 (Other) were adequate and the two scales were significantly correlated at  $r = .73, p < .01$ . The WEIP has a test retest reliability of .80 after one week.

Scales 1 and 2 can further be delineated into 5 sub-scales. Scale 1 comprises the sub-scales, Ability to Recognize Own Emotions (Perception) (5 items); Ability to Discuss Own Emotions (Knowledge/Assimilation) (5 items); and Application of Own Emotions to Facilitate Thinking (7 items). Scale 2 comprises the sub-scales Ability to Recognize Others' Emotions (Perception) (4 items,  $\alpha = .73$ ) and Ability to Manage Others' Emotions (8 items). These scales conform to Mayer and Salovey's (1997) description of the emotional intelligence construct (Jordan et al., 2002).

## Procedure

Following the suggestions of Kirkpatrick (1977), participants completed the emotional intelligence measure at two points in time, initially just prior to commencing the relational training intervention and again at the completion of the program. Participants completed the first measure on the first morning of the first day of training, before any course content was discussed. The second iteration of the survey was then completed after the training program was completed at the end of the fourth day.

In order to allow comparison between results of the pre-test and post-test a paired samples t-test was performed. Caution was taken in interpreting the results of this test, due to the possibility of an inflated Type I error (Zimmerman, 1997). As can be seen in the tables of results that follow, only highly significant results were interpreted as meaningful.

## Results

Table 1 shows the means, standard deviations correlations and Cronbach's alpha reliabilities for the WEIP6 scales. As expected, significant positive correlations were found between an individual's ability to deal with their own emotions (Scale 1), ability to deal with others' emotions (Scale 2), and the total WEIP6 scale. The results mirror previous research using this instrument (Jordan et al., 2002).

**Table 1**

<i>Means, standard deviations, and intercorrelations for WEIP-6 scales (n=40)</i>					
	Mean	S.D.	1	2	3
1. Dealing with Own Emotions	78.71	10.52	0.83		
2. Dealing with Others' Emotions	53.14	9.32	0.51**	0.88	
3. WEIP-6 Total	131.85	18.43	0.67**	0.92**	0.91
Figures on the diagonal are Cronbach's alpha reliability coefficients.					
** Correlation is significant at the 0.01 level (2-tailed).					
* Correlation is significant at the 0.05 level (2-tailed).					

A more detailed analysis is provided in Table 2 of the five WEIP-6 subscales, showing the means, standard deviations, correlations and Cronbach's alpha for each of the subscales. Again, as expected, significant positive correlations were found between each of the subscales. This reflects the findings of earlier research (Jordan et al., 2001).

**Table 2**

<i>Means, standard deviations, and intercorrelations for WEIP-6 subscales (n=40)</i>							
	Mean	S.D.	1	2	3	4	5
1. Recognize Own Emotions	25.97	3.92	0.80				
2. Discuss Own Emotions	18.34	5.03	0.77 *	0.81			
3. Own Emotions to Facilitate Thinking	34.40	5.00	0.77*	0.33*	0.71		
4. Recognize Others' Emotions	17.56	3.66	0.70**	0.44**	0.56**	0.73	
5. Manage Others' Emotions	35.58	6.26	0.67**	0.54**	0.54**	0.75**	0.84

Figures on the diagonal are Cronbach's alpha reliability coefficients.

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

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

Table 3 shows the results of a paired samples t-test to test the differences in emotional intelligence following the training. This table reveals a significant change between the pre-test and post-test for each of the WEIP-6 scales. This suggests an improvement in emotional intelligence during the course of the training program.

**Table 3**

<i>Results of paired samples t-test, means, standard deviations for Pre-test, Post-test, and Mean difference for WEIP-6 Scales (n=40)</i>					
	Mean Post-test	Mean Pre-test	Mean Diff.	t	ρ
Dealing with Own Emotions	86.32	78.71	7.60	4.11	0.000
Dealing with Others' Emotions	60.28	53.13	7.14	5.27	0.000
WEIP6 Total	146.59	131.85	14.74	5.11	0.000

To examine this result in more detail, Table 4 further breaks these results down into each of the five subscales. Similar to the results reported in Table 3, this test shows the mean of the post-test, pre-test and the mean difference for the five WEIP-6 subscales, in addition to the t-test value and significance level. The results indicate that there was a significant change in participant's scores in their ability to Discuss Own Emotions, Use their Own Emotions to Facilitate Thinking, Recognize Others' Emotions and Manage Others' Emotions. However, there was no significant change in participants' ability to Recognize their Own Emotions.

**Table 4**

<i>Results of paired samples t-test, means, standard deviations for Pre-test, Post-test, and Mean difference for WEIP-6 Subscales (n=40)</i>					
	Mean Post-test	Mean Pre-test	Mean Diff.	t	$\rho$
Recognize Own Emotions	26.30	25.97	0.33	0.54	0.590
Discuss Own Emotions	22.60	18.34	4.26	5.04	0.000
Own Emotions to Facilitate Thinking	37.42	34.40	3.02	3.44	0.001
Recognize Others' Emotions	19.35	17.56	1.79	3.09	0.004
Manage Others' Emotions	40.93	35.58	5.34	5.37	0.000

## Discussion and Conclusion

In our earlier review of literature we examined the model for assessing the efficacy of training interventions proposed by Kirkpatrick (1977). While assessment of the training program has usually be conducted on an ad hoc basis using anecdotal evidence and this has reinforced the usefulness of the training, there has been no independent assessment of skills pre and post training. The results of the current study provide the first attempt a providing proof of the change in skill levels as a result of the training program.

Table 3 demonstrates significant improvement in overall Emotional Intelligence as well as the two branches of Dealing with Own Emotions and Dealing with Others' Emotions, as measured by the WEIP-6 scale (Jordan, Ashkanasy, Hartel, & Hooper, 2002). Examining the results in more detail, the first scale of Dealing with Own Emotions is made up of the three subscales of ability to Recognize Own Emotions, Discuss Own Emotions, and Use of Own Emotions to Facilitate Thinking. As presented in Table 4, the subscale Recognize Own Emotions did not significantly change over time. This result is somewhat surprising as a part of the subject material that was covered in the training involved improving the participants' self-awareness. A closer inspection of the training material, however, suggests that the focus for the program is on self-awareness in relation to personality whereas the WEIP measures emotional self-awareness. This may account for the result but given the small sample size in this study we approach this explanation cautiously.

The significant change between pre-test and post-test for each of the other subscales suggests that the training intervention was successful in providing proof that skill improvement occurred. In particular, it is significant that the changes on the WEIP reflect the relational behavioural skills that the course is aiming to develop. From Table 4, managing other emotions and being able to discuss your own emotions (assertiveness) came up as producing significant changes.

While this preliminary study provides some confidence in the efficacy of the training program, the next step in the process of proving that the training intervention as recommended by Kirkpatrick (1977) is to show that the changes reported here were due to the content of the training program and not any other external factors. While we are confident

that the procedure for this study which involved measuring emotional intelligence immediately prior to the training commencing and immediately after the training had concluded leaves little room for external factors to play a part, we intend to address this issue more thoroughly. Our strategy for achieving this is extend our study to administer the WEIP-6 measure using a control group and the training participants concurrently for future interactions of the Main Roads intervention program. This strategy is currently underway with results expected to be available by the end of 2004.

## **Limitations**

This paper has presented the preliminary findings of a study examining the efficacy of training in behaviour and relational skills development. There are currently three limitations of this study. First the relatively small sample for this study (n=40) does prevent us from making too many generalisations. As this study is part of an ongoing research project the sample size is increasing monthly and we aim to present more detailed results with an approximate sample size of 200 by the end of 2004. A second limitation is the research design for this study. We are in the process of implementing an experimental design for the next phase of the research to gather some data on a control group. At this stage we will be able to make more significant assertions in relation to the efficacy of the training program when compared to a control group who has not received the training. The results of this study will be available by the end of 2004. The final limitation is the use of a self-report measure. While this is an accepted method for collecting data in this type of research we are considering a supplementary qualitative data collection to triangulate and further support the findings of this study.

## **Implications and Conclusion**

These preliminary results provide a significant implication for managers. Based on the results of this study, managers should be aware that there is a need proof over and above the current anecdotal evidence as to the efficacy of their training interventions. Collection of such evidence allows managers to further align their strategic goals with concrete performance outcomes and prepare training interventions that contribute to these by improving the skills of their employees.

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