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A Preliminary Investigation of the Links Between Interpersonal Skills Training, Team Emotional Intelligence and Team Performance

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Abstract

A debate exists regarding the efficacy of training interventions in emotional intelligence. While some authors claim that emotional intelligence cannot be learned, others argue it can. Despite this ongoing debate, emotional intelligence training is being offered to organisations. These training packages range from simple interpersonal skills training to more emotions focused programs. In this paper, we report our preliminary findings from one study in an overall research project seeking to determine the extent to which training increases team performance and / or emotional intelligence. The results presented in this paper provide evidence that while basic interpersonal skills training improves team performance it does not effect team emotional intelligence.

(108 words)

Key Words: Emotional Intelligence; Interpersonal Skills; Training

Introduction

Over the last decade, the empirical research into emotional intelligence has begun to gain momentum. From its early beginnings with the work of Mayer and Salovey (1990), the construct has gained popularity and is now widely discussed in academic, managerial and consultancy circles (Ciarrochi, Chan, & Caputi, 2000). In particular, the construct of emotional intelligence is currently being highlighted as a tool that organisations can harness to improve individual and team performance (Jordan, Ashkanasy, & Hartel, 2002).

At present organisations are spending millions of dollars on providing emotional intelligence training interventions to improve both the emotional intelligence and performance of their workforces (Cherniss, 2003; Goleman, 2001). However, few of these training interventions are justified on theoretical grounds (Palmer, Walls, Burgess, & Stough, 2001). Furthermore, many of these interventions offered to organisations are little more than interpersonal skills labelled as emotional intelligence training (Jordan, Ashkanasy, Hartel, & Hooper, 2002). As a part of a larger research project examining the links between training, team performance and emotional intelligence, the aim of this paper is to determine the extent to which basic interpersonal skills training increases the performance of work teams and to establish whether these training interventions also increase the team's emotional intelligence.

Emotional Intelligence

From its beginnings in 1990's when the term was first proposed by Salovey and Mayer (1990), emotional intelligence has now become a topic of interest for academics, managers and consultants alike (Ciarrochi et al., 2000; Dulewicz & Higgs, 2000). Jordan, Askanasy and Hartel (2003) maintain that the definition of emotional intelligence proposed by Mayer and Salovey (1997) encapsulates the definitive model of the construct as it provides a sufficient differentiation of emotional intelligence as an ability and traits.

Mayer and Salovey (1997) define emotional intelligence as a combination of four factors: "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 & Salovey, 1997:5). Through exploring each of the four branches of emotional intelligence in turn, it can be seen that each branch focuses upon specific emotional abilities (Mayer, Perkins, Caruso, & Salovey, 2001).

The first of these abilities, the accurate appraisal and expression of emotion incorporates emotional self-appraisal, gauging the emotions of others, and the ability to perceive false expressions of emotions (Mayer & Salovey, 1997). The second branch of Mayer and Salovey's (1997) model is facilitation of emotions that involves the ability of an individual to generate emotions in themselves and others that facilitate thought (Mayer, 2001). In other words, individuals with high levels of emotional intelligence are successfully able to alter their own and others emotions to assist their own information processing (Zhou & George, 2003). Understanding emotions or emotional knowledge is the third branch of Mayer and Salovey's (1997) emotional intelligence model and highlights an individual's ability to aid intellectual and interpersonal growth through understanding their own emotions as well as the emotions of others (Jordan., Ashkanasy, & Hartel, 2002). This ability incorporates emotional knowledge that assists individuals to recognize how emotions can blend together, transition and progress over time and the causes of emotion, as well as the consequences of these emotions on both themselves and others (Mayer, Salovey, & Caruso, 2000; Zhou & George, 2003). Finally, managing or regulating emotions to help in problem solving consists of not only the capability to manage and control your own emotions, but also the ability to influence the emotions of others (Mayer & Salovey, 1997).

Emotional Intelligence and Training

While there has been a debate over definitions of emotional intelligence (Jordan et al., 2003) there is also widespread debate as to the efficacy of emotional intelligence training interventions within organisations (Jordan et al., 2002). At present, there are a wide variety of emotional intelligence training programs on the market that have been produced through commercial ventures, and therefore are subject to commercial-in-confidence considerations. This has meant that outcomes and ideas have not been readily shared within the research community. The training interventions that are

currently available to organisations are said to be producing positive performance outcomes for the organisations that utilise them (Cherniss, 2003). However, these training packages would benefit from a process of open theoretical development, empirical testing and peer review. This process would help to address the concerns raised by researchers as to the validity of the construct and its links to performance improvements (Ciarrochi et al., 2000; Dulewicz & Higgs, 2000; Jordan et al., 2002). It would also assist to resolve the debate over whether emotional intelligence is a crystallised intelligence and can be learned (Davies, Stankov, & Roberts, 1998; Mayer & Salovey, 1997) or a fluid intelligence and therefore cannot be altered over one's life (e.g. Cooper & Sawaf, 1997).

Emotional Intelligence and Performance

Job performance has two aspects. These are task performance and contextual performance behaviours (Borman & Motowidlo, 1993a). Borman, Penner, Allen and Motowidlo (2001:54) differentiate task and contextual performance by stating "task activities vary across jobs, whereas citizenship activities are quite similar across jobs".

Task performance includes two classes of behaviour; the process of producing goods and services from raw organisational materials; and service and maintenance activities that enable the organisation to run both efficiently and effectively (Motowidlo & Van Scotter, 1994; Van Scotter, Motowidlo, & Cross, 2000). According to Conway (1999), task performance behaviours are centred around ability and experience and are principally a function of cognitive ability (Borman et al., 2001). Task performance is mediated by task knowledge (the technical requirements of job performance), task skill (the application of technical knowledge in order to perform tasks efficiently and effectively) and task habits (characteristic responses to tasks that serve to either facilitate or hinder the successful performance of tasks).

Whereas task performance is viewed as a cognitive ability, contextual performance is thought to be a function of personality. Contextual performance consists of five separate factors including; undertaking activities over and above job requirements; persistence in task completion; cooperation with other team members; adhering to organisational procedures, even when inconvenient; and providing support and endorsement to organisational objectives (Borman & Motowidlo, 1993b). Contextual performance is mediated by contextual skill (knowledge concerning both helping and co-ordination, and following organisation rules and procedures), contextual habits (tendencies that can facilitate or hinder the effective performance of contextual behaviours) and contextual knowledge (knowledge of how to ask for help, follow rules and volunteer in organisational situations) (Borman et al., 2001).

In addition to the five core dimensions of contextual performance proposed by Borman and Motowidlo (1993a), Van Scotter and Motowidlo (1996) contend that contextual performance is made up of two separate facets. These are interpersonal facilitation and job dedication. Interpersonal facilitation can be defined as "deliberate acts that improve morale, encourage cooperation, remove barriers to performance, or help co-workers perform their task-oriented job activities" (Van Scotter &

Motowidlo, 1996: 526). Job dedication on the other hand, is concerned with behaviours related to self-discipline. Examples of job dedication are working hard, following organisational rules and regulations, and using one's own initiative to solve work related problems (Van Scotter & Motowidlo, 1996).

The links between emotional intelligence and both contextual and task performance emerge from the relational nature of working in teams. If teams rely on personal interactions to achieve goals (West, 1991) then variables that contribute to better relationship skills will enhance the performance of teams. Mayer and Salovey (1997) identify that the abilities linked to emotional intelligence contribute to enhanced relational skills.

Emotional Intelligence, Training and Performance

The study presented in this paper is a preliminary test of the link between emotional intelligence, training interventions and performance. Specifically, in this study we examined the ability of interpersonal skills training to impact on team performance and emotional intelligence. There is clear evidence that we are moving to more team structures within organizations (West, 1994). There is also evidence that teams outperform individuals as they allow individual strengths to be utilised while individual weaknesses are compensated (Brannick, Salas, & Prince, 1997). In order to create a high level of team performance, individuals within those teams require the ability to work together towards a common goal (West, 1994). According to the research undertaken by Jordan and Troth (2004), emotional intelligence links to team contextual performance as it facilitates individuals' working relationships. Based on this evidence, we propose that the contextual performance facets of interpersonal facilitation and job dedication can be improved through training work teams in interpersonal skills. Therefore, we offer the following hypothesis:

Hypothesis 1: Training work teams in basic interpersonal skills will improve the contextual performance of work teams.

According to Conway (1999), task performance behaviours are centred around ability and experience however when this performance is team based performance the extent to which these abilities and experience emerge are a factor of how well the team interacts (Brannick et al., 1997). Clearly then task performance of teams will depend on the extent to which teams are able to work together. Therefore, we propose that:

Hypothesis 2: Training work teams in basic interpersonal skills will improve the task performance of work teams.

While we propose that interpersonal skills training will increase contextual and task performance, interpersonal skills training is about basic communication, conflict resolution and goal setting. While these skills have links to emotion, they do not include specific emotion focussed interventions. Although some consultants offer this type of training as emotional intelligence training, we consider that training in a range of interpersonal skills will not increase emotional intelligence. In effect we are hypothesising a null hypothesis that training in interpersonal skills will result in no increase in emotional intelligence as this is not emotion focussed training.

Hypothesis 3: Training in basic interpersonal skills will not raise the emotional intelligence of work teams.

While there has been opposition to accepting the null hypothesis (see Greenwald, 1993), Frick (1995) contends that the null hypothesis can in some cases be accepted. Furthermore, by reporting studies where this occurs, it has been argued that future researchers can save time in the same field performing similar investigations and finding the same results (Cortina & Folger, 1998; Frick, 1995).

Research Design

As indicated earlier, the preliminary research findings reported within this paper are part of a wider research project. The project itself takes the form of an experimental research design to be completed in three phases over the next two years. Phase 1 of the study is a replication of research undertaken by Jordan and his colleagues (2002) with university students within a work setting. The preliminary results of this phase are reported within this paper. Phase 2 of the project will then focus upon the design, delivery and measurement of specific team emotional intelligence training interventions. As with the phase 1, emotional intelligence will be measured pre-training, post-training and compared with a control group sample. The final phase of the project will then provide opportunities for control group members to participate in the training interventions offered to the experimental group.

Procedure

This study provided a replication of the research originally undertaken by Jordan and his colleagues (2002) with first year university students. This research however, has utilised employees from a single large public sector organisation and includes performance measures relating to those employees. The training interventions undertaken within this study comprise of a range of interpersonal skills as prescribed by (Dick, 1991).

The training interventions undertaken with the teams were based around the three areas of goal setting, supportive communication and the conflict resolution in teams (Carlopio, Andrewartha, & Armstrong, 1997; Locke & Latham, 1990; Locke, Shaw, Saari, & Latham, 1981; Ruble & Thomas, 1976). These training interventions were disseminated to the teams during of one full day of training, followed two weeks later by a half-day follow up training session. Day one of training was conducted in four separate sections, with the half-day follow up conducted over two sessions. Surveys were distributed for completion by participants at both the initial training day (pre-test) and at the follow-up session two weeks later (post test).

Sample

Sixty-eight employees of a public sector organization participated in the first day of the training program, with 48 returning to the half-day follow up. The age of participants ranged from 18 to 62, with a mean age of 41.6 years; with 57.4% of participants being male. Participants took part in the training interventions outlined above, where they were assigned randomly to 13 teams for the duration of the intervention. Additional work teams are scheduled to participate within the study over the next three months.

Measures

At the beginning of the first training day and after the follow up session, participants were asked to fill in a self-report questionnaire entitled the “Emotions in the Workplace” survey. The self-report questionnaire includes scales measuring emotional intelligence, task and contextual performance and goal setting.

Emotional Intelligence

Emotional intelligence was measured through the use of the Workgroup Emotional Intelligence Profile (WEIP-6) (Jordan et al., 2002). 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 behaviour 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 WEIP:6 captures the two dimensions of emotional intelligence: Ability to Deal with Own Emotions (Scale 1: 19 items) and Ability to Deal with Others’ Emotions (Scale 2: 17 items) discerned by Jordan et al. (2002). Alpha reliability coefficients of .87 (Self) and .90 (Other) were adequate and the two scales were significantly correlated at $r = .77, p < .01$.

Scales 1 and 2 can further be delineated into six sub-scales. Scale 1 comprises the sub-scales, Awareness of Own Emotions (Perception) (5 items, $\alpha = .80$); Ability to Discuss Own Emotions (Knowledge/Assimilation) (5 items, $\alpha = .87$); and Application of Own Emotions to Facilitate Thinking (9 items, $\alpha = .77$). Scale 2 comprises the sub-scales Ability to Recognize Others’ Emotions (Perception) (4 items, $\alpha = .77$); Ability to Detect False Displays of Emotions (5 items, $\alpha = .66$) and Ability to Manage Others’ Emotions (8 items, $\alpha = .85$). These scales conform to Mayer and Salovey’s (1997) description of the emotional intelligence construct (Jordan et al., 2002).

Citizenship Rating Scale

Task and Contextual performance were measured using the 'Citizenship Rating Scale' devised by Motowidlo and Van Scotter (1994; 1996). The measure utilises a 5-point Likert-type scale ranging from 1 (not at all accurate) to 5 (very accurate). The scale consists of two subscales that measure the constructs of Interpersonal Facilitation (scale 1:7 items) with items such as "I praise co-workers when they are successful" and Job Dedication (scale 2:8 items) with items including "I ask for challenging work assignments". Alpha reliability coefficients of each scale were 0.89 (Interpersonal Facilitation) and 0.94 (Job Dedication).

Goal Setting Measure

The goal setting scales that have been included within the survey were selected from Locke and Latham's (1984; 1990) own measure of Goal Setting. The measure again follows a 5-point response format ranging from 1 (almost never) to 5 (almost always) and includes items such as "I get regular feedback indicating how I am performing in relation to my goals" and "my goals serve to limit rather than raise my performance". As the original scale consists of ten subscales contains 45 items, specific scales were chosen according to their relevance to this research. In total six subscales, totalling 26 questions were chosen, including: supervisor support and participation (3 items, $\alpha = 0.82$); goal stress (3 items, $\alpha = 0.68$); goal efficacy (4 items, $\alpha = 0.68$); goal rationale (4 items, $\alpha = 0.78$); goal conflict (8 items, $\alpha = 0.85$); and goal clarity (4 items, $\alpha = 0.67$) (Lee, Bobko, Early, & Locke, 1991; Locke & Latham, 1984).

Task Performance

In addition to the survey items designed to measure task and contextual performance, participants also completed two team exercises designed to assess these constructs. The first performance activity was completed at the beginning of the first day of training with the second completed approximately two weeks later in the half day follow up session. Both activities were based around team survival activities. The first exercise was entitled "Subarctic Survival Situation" (Human Synergistics, 2004) and the second called "Survivor on the Moon" (National Aeronautics and Space Administration, 2004). The two activities follow the same format to enable accurate comparisons to be achieved from time one to time two. On both of these performance measures, a lower score indicates higher performance.

Contextual Performance

In addition to comparing the task performance, each activity was monitored and assessed by three independent raters. The three raters met prior to completing the observation measures and each of the measurement criteria were discussed. The measurement criteria assessed were team process ($\alpha = 0.59$), communication ($\alpha =$

0.77) and functional conflict ($\alpha = 0.62$). During these discussions, parameters were determined for the observations. The observations were then captured on five point Likert-type scales. The agreement of the independent ratings were checked using Cronbach's alpha reliabilities. These averaged 0.96 for team process; 0.90 for communication; and 0.91 for functional conflict.

Results

To test our hypotheses we conducted a preliminary analysis using SPSS. Table 1 presents the pre training means, standard deviations and intercorrelations for the WEIP:6 items used in the Emotions in the Workplace survey. Based on the inter item correlations and an examination of the Cronbach alphas, the measure of emotional intelligence is both valid and reliable.

Table 1

Means, standard deviations, and intercorrelations of WEIP:6 at Time 1 (Pre-test) (n=68)

	Mean	S.D.	1	2	3	4	5	6	7	8	9
1 Awareness of Own Emotions	20.38	4.38	0.80								
2 Ability to Detect Own Emotions	21.25	6.08	0.70**	0.87							
3 Application of Own Emotions to Fair/Unfair Thinking	40.08	6.21	0.37**	0.33**	0.77						
4 ABILITY TO DEAL WITH OWN EMOTIONS	94.05	13.07	0.82**	0.84**	0.74**	0.67					
5 Ability to Recognize the Emotions of Others	18.94	3.88	0.07**	0.07**	0.40**	0.07**	0.77				
6 Ability to Detect False Displays of Emotion	22.2	3.88	0.04*	0.02*	0.31*	0.04*	0.72**	0.68			
7 Ability to Manage Others' Emotional States	37.88	8.48	0.19*	0.18**	0.61**	0.20**	0.68**	0.69**	0.88		
8 ABILITY TO DEAL WITH OTHERS EMOTIONS	78.78	11.73	0.60**	0.73**	0.49**	0.77**	0.64**	0.64**	0.68**	0.80	
9 OVERALL WEIP SCORE	172.81	23.48	0.78**	0.83**	0.60**	0.67**	0.60**	0.78**	0.68**	0.84**	0.83

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.

In addition to analysing the WEIP:6 scales contained within the Emotions in the Workplace Survey, the results of the citizenship rating and goal setting scales were also analysed. Table 4 presents the means, standard deviations and correlations for the citizenship rating scales and the goals setting scales.

Table 2

Means, standard deviations, and intercorrelations of WEIP:6, Citizenship, Goal Setting and CIV at Time 1 (Pre-test) (n=68)

	Mean	S.D.	1	2	3	4	5	6	7	8	9
1 T1_WEIP_Emoional Intelligence	172.81	23.48	0.83								
2 Citizenship- Interpersonal Facilitation	28.40	2.08	0.79**	0.74							
3 Citizenship- Job Devotion	31.11	4.27	0.62**	0.54**	0.67						
4 Goal Setting - Supervisor Support/Participation	11.41	2.00	0.32**	0.24*	0.14	0.68					
5 Goal Setting - Goal Stress	5.58	2.14	-0.17	-0.26*	-0.12	-0.27*	0.67				
6 Goal Setting - Goal Rationale	12.80	3.61	0.38**	0.28*	0.19	0.70**	-0.27*	0.68			
7 Goal Setting - Goal Efficacy	15.11	2.54	0.48**	0.28*	0.30**	0.61**	-0.31*	0.68**	0.77		
8 Goal Setting - Goal Clarity	14.80	2.70	0.38**	0.40**	0.22	0.54**	-0.24	0.68**	0.69**	0.82	
9 Goal Setting - Goal Conflict	19.77	4.88	-0.18	-0.16	-0.09	-0.32**	0.53**	-0.28*	-0.18	-0.32**	0.67

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.

As noted earlier, the performance measures were collected on a team basis. In this preliminary study, we have only undertaken a simple examination of pre and post means as a more detailed analysis would require a larger group sample. The results of

the differences in emotional intelligence and group performance measures between pre and post measures are provided in Table 3.

Table 3

Results of paired samples t-test, means, standard deviations for Pre-test, Post-test, and Mean difference (n=13)

	Post-Test Mean	Pre-Test Mean	Mean Difference	t	P
Emotional Intelligence	174.84	174.48	0.36	0.17	0.87
Group Score	31.23	40.51	-9.28	-5.74	0.000
Team Process	14.24	9.89	4.36	10.20	0.000
Communication	9.96	8.47	1.49	5.94	0.000
Functional Conflict	12.19	10.23	1.96	8.94	0.000

NB: Group Score - lower score indicates higher performance

Discussion

The relationship between emotional intelligence, the citizenship rating scales and the goal setting scales contained within Table 2 have been examined. In particular, there were strong correlations between emotional intelligence and interpersonal facilitation ($r = 0.74, p > .01$), job dedication ($r = 0.52, p > .01$), supervisor support ($r = 0.32, p > .01$), goal rationale ($r = 0.38, p > .01$), goal efficacy ($r = 0.46, p > .01$), and goal clarity ($r = 0.36, p > .01$).

These results also show strong correlations between job dedication and interpersonal facilitation ($r = 0.54, p > .01$); job dedication and goal efficacy ($r = 0.39, p > .01$); and interpersonal facilitation and goal clarity ($r = 0.40, p > .01$). These results reflect previous research. For instance, in their study of 1,136 US Airforce Mechanics, Van Scotter and Motowidlo (1996) observed strong correlations between job dedication, interpersonal facilitation and measures of Expectancy of Task Success (similar to goal efficacy) and Goal Orientation (similar to goal clarity).

In our earlier review of literature we hypothesised that training work teams in basic interpersonal skills would improve the contextual performance of work teams (Jordan & Troth, 2004). Table 3 reveals that there was a significant improvement in the observer ratings of team process (contextual performance) from pre test to post test. Specifically, the results in Table 3 show teams demonstrated significant improvements achieved in both communication and functional conflict between time one and two. Based on these results hypothesis one is supported.

We also hypothesised that training work teams in basic interpersonal skills would improve the task performance of work teams due to it facilitating interactions within work teams. Based on the results in Table 3 the teams demonstrated significant improvements their overall group performance level from pre-test to post-test in the performance exercise. Consequently, hypothesis two is supported.

Although significant improvements in group score, team process, communication and functional conflict were achieved, Table 3 reveals that there was no significant difference in the emotional intelligence of teams from pre-test to post-test. Based on these findings our third hypothesis is also supported. Clearly, while interpersonal skills training has the potential to improve team performance, this is not the result of team being more emotionally intelligent, but rather, a result of the team being able to work together and resolve differences more collaboratively.

Limitations

In this paper we presented the preliminary finding of phase one of a larger study examining the role of emotional intelligence in team training interventions. There are two limitations in the current study, a small sample size (particularly for the groups) and common method variance. As additional data is collected, we will be able to improve our analysis by using correlational analysis and regression and draw more substantial conclusions in relation to the links between interpersonal skills training and emotional intelligence. Despite the small sample size, however, we found evidence to support all three of our hypotheses.

The other limitation to our study was the possibility of common method variance in administering the survey. We overcame this partially by the inclusion of the marker variable as recommended by Lindell and Whitney (2001) however the small size of the sample in this present study prevented the analysis of common method variance. In future studies there we will include additional analysis to account for common method variance.

Implications and Conclusion

There are several implications for these preliminary results. First, this research provides preliminary evidence that simple interpersonal skills training cannot improve emotional intelligence. This then draws the attention of human resource professionals to the importance of ensuring the efficacy of training packages they are offered in relation to emotional intelligence. The findings of this research also contribute to the current emotional intelligence/training debate. Clearly, there are some types of training that do not elevate emotional intelligence. In phase 2 of this research program we will examine the impact of specific emotion focussed interventions on both team performance and the levels of team and individual emotional intelligence.

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