Emotional Intelligence, Diversity, and Group Performance: The Effect of Team Composition on Executive Education Program Outcomes

Michael P. Lillis
Medaille College, michael.p.lillis@medaille.edu

Follow this and additional works at: http://digitalcommons.kennesaw.edu/jee

Part of the Business Commons, and the Education Commons

Recommended Citation
Available at: http://digitalcommons.kennesaw.edu/jee/vol6/iss1/4

This Article is brought to you for free and open access by DigitalCommons@Kennesaw State University. It has been accepted for inclusion in Journal of Executive Education by an authorized administrator of DigitalCommons@Kennesaw State University. For more information, please contact digitalcommons@kennesaw.edu.
EMOTIONAL INTELLIGENCE, DIVERSITY, AND GROUP PERFORMANCE: THE EFFECT OF TEAM COMPOSITION ON EXECUTIVE EDUCATION PROGRAM OUTCOMES

Michael P. Lillis, Medaille College
Frank J. Krzystofiak, State University of New York at Buffalo

Group dynamics play a crucial role in group performance and effectiveness. The notion that people prefer to work with similar others in homogeneous groups is a common observation. Yet studies have revealed that homogeneity doesn’t necessarily translate into optimal group performance. In fact, research on group diversity has been fairly inconsistent; suggest the potential for some kind of underlying moderator variable. Using a sample of executive MBA students, this paper examines how group diversity and emotional intelligence are associated with group performance. We develop an integrative model that posits that the association between group heterogeneity and group performance becomes more positive as group emotional intelligence increases. Patterns of group performance are observed across different levels of group heterogeneity and within and between high and low emotionally intelligent groups. Findings revealed that group emotional intelligence predicts positive performance more strongly in a heterogeneous group than in a homogenous group. Results are discussed in connection with implications for group construction and for research in work group diversity.

Introduction

As part of a strategy for coping with trends towards increased globalization and strongly integrated markets, organizations have adopted work group compositions that possess a broad range of attributes. What's more, it is expected that groups will continue to become more diverse in years to come (Jackson, Joshi & Erhardt 2003; Williams & O’Reilly 1998). These heterogeneous groups bring with them on the one hand some of the more traditional dimensions of differentiation (e.g. age, gender, race, ethnicity, education, etc….) and on the other hand a wide-ranging mix of attributes having situation-specific relevance (functional background, task specific skills, experience, etc….). The challenge for group effectiveness is to capitalize on the larger pool of talent and viewpoints that are available to these heterogeneous groups, especially for non-programmed decision situations. To that end, the primary task of diversity research has been to determine how differences between work group members impact group functioning and ultimately affect group performance.
In a recent review of the work group diversity literature, Knippenberg and Schippers (2007) point out that differences between group members have been shown to have positive as well as negative effects on group performance. This observation is compatible with the *diversity-consensus dilemma* which predicts that increased diversity among group members makes it harder for group members to work together, even though the diversity itself expands the skills that may be helpful in dealing with problem solving (Argote & McGrath, 1993). The question remains however, when does diversity help and when does it hinder group effectiveness? Several researchers have suggested that the inhibiting effects of heterogeneity on group performance is only a short-term phenomenon and that with sufficient time to adjust to age, gender, ethnicity and national differences, diversity enhances team performance. However, inconsistencies across studies suggest the likelihood of some underlying phenomenon. The Knipperberg and Schippers review is central to this investigation not only because it describes the current and increasingly sophisticated conceptualization of diversity within the field, but draws attention to important process issues that potentially trigger inconsistencies in diversity research.

One explanation offered by Knippenberg and Schippers (2007) for such vastly inconsistent results within the diversity field is a preoccupation with “main effects”. Other researchers have come to a similar conclusion regarding the current state of the field. For example, Pitcher and Smith (2001), suggest that such wide-ranging results can be attributed to certain methodological problems, such as a failure to consider the existence of certain intervening (e.g. team process) or moderator (e.g. industry competitive environment) variables. Likewise, Jackson & Joshi (2004) reached similar conclusions and subsequently investigated how organizational contexts can be viewed as possible moderating influences that partially determine whether diversity is likely to be associated with positive or negative consequences. In an attempt to provide an adequate account for the effects of diversity, the primary purpose of this study is to extend previous research on work group diversity by examining the role of a uniquely important moderator variable; *emotional intelligence*. In addition to providing insights as to when diversity may be expected to have positive or negative effects, this focus will serve to illuminate our understanding about certain process issues that underlie the influence of work group diversity on group performance.

**Background**

**Emotional Intelligence.**

Emotional intelligence is a set of abilities that includes the abilities to perceive emotions in the self and in others, use emotions to facilitate performance, understand emotions and emotional knowledge, and regulate emotions in the self and in others (Mayer and Salovey, 1997). Despite a growing appreciation for its impact on managerial practice (Ashkanasy and Daus, 2002), minimal research has been done to investigate the relationship between emotional intelligence and job performance (Cote and Miners, 2006). Of particular interest to the current research are those studies that look at the relationship between emotional intelligence and group performance. One study found that the emotional intelligence of teams was related to customer service measures of team performance (Feyerherm and Rice, 2002). Another study found that the emotional intelligence of teams of students predicts the performance of these teams at the initial
stages of a project (Jordan, Ashkanasy, Hartel & Hooper, 2002). Finally, a study of MBA students found that EI competencies of empathy and achievement orientation were positively related to group performance (Rapisarda, 2002). In each of these studies, emotional intelligence is investigated as an independent variable. From a group diversity standpoint, what’s missing is the consideration of emotional intelligence as a potential moderator of the diversity - group performance relationship.

Dimensions of Diversity.

The focus of the majority of diversity research has been on differences in gender, age, ethnicity, tenure, education, and functional background (Milliken & Martins 1996; Williams & O’Reilly 1998). These dimensions have been further classified into attributes that are less job related (e.g. demographic-related attributes like gender, race/ethnicity, age, etc…) and those attributes that are more job-related (e.g. task-relevant attributes like education or functional background). Although these classifications of diversity type have served as a focal point for diversity research, meta-analyses have failed to find any reliable relationship between these forms of diversity and group performance (see Bowers, Pharmer, & Salas, 2000 and Webber & Donahue, 2001).

In an ongoing attempt to understand the complex pattern of findings regarding how diversity influences group performance, some researchers have examined the impact of group member personality (e.g. Harrison, Price, Gavin, & Florey 2002; Neuman, Wagner & Christiansen, 1999; Neuman & Wright, 1999). For example Barrick, Stewart, Neubert and Mount (1998) and Van Vianen and De Dreu (2001) found that variation in the conscientiousness of team members has a negative influence on performance and group cohesion. In another study, Mohammed and Angell (2003) reported that variability in agreeableness, neuroticism and extraversion have a direct impact on performance, but only for certain types of team tasks. Generally speaking, the balance of research on personality diversity and group performance has reported inconsistent findings, revealing a need for additional research that can address the contingencies that underlie these relationships.

Towards an Integrative Model.

Related to a more general personality framework, measures of emotional intelligence typically include attributes that are similar to those found in omnibus scales of personality (Mayer, Salovey, & Caruso 2000). In light of the variation across studies of personality diversity and workplace performance, we believe that an overarching personality dynamic like emotional intelligence is likely to play an important role in group process, especially as it relates to the performance of heterogeneous groups. Research has shown that cohesiveness tends to be high when group members are similar in age, attitudes, needs, and backgrounds. However, problems arise within groups when emotional antagonisms create frictions between group members, an outcome we might expect in less cohesive, heterogeneous groups. George (2002) suggests that groups that are higher in emotional intelligence are able to devise creative solutions to disagreements and avoid becoming mired in escalating conflicts. To that end, Yang & Mossholder (2004) argue that emotionally intelligent groups have a better awareness of their own and others’ emotions, thereby allowing them to recognize deteriorating emotional conditions that could spill over to personal interrelationships. Consequently, we expect that
emotionally intelligent groups will be more effective at recognizing situations that have the potential for conflict and therefore are better able to deal with these situations in ways that will best facilitate group performance. Moreover, given that the likelihood for conflict would be higher when group members are dissimilar, we expect that heterogeneous groups will display a larger increase in performance level in comparison to their homogeneous counterparts. Thus we expect that the impact of heterogeneity on group performance is attenuated by emotional intelligence such that improvements in EI among diverse groups have a greater impact on group performance than it would for homogeneous groups.

**An Empirical Demonstration**

**Sample.**

Data was collected over a four year period from 98 graduate students enrolled in a 22 month executive MBA program in a large northeastern university. The sample included 28 females and 70 males, with an average age of 40.24 years. The vast majority of subjects, 83%, were Caucasian, while only 8% were African American, 4% Latino/Hispanic, and 5% Asian. Upon gaining entry into the program, students were assigned to 4-6 person groups. Assignments were made so as to provide an equal dispersion of cross functional expertise (accounting/finance, marketing, operations management, engineering and other) within each group. A total of 19 groups were represented within our sample. Demographic information on each subject was collected from university records.

**Measures.**

As part of a course requirement, each subject completed a multi-rater version of the Emotional Competence Inventory (ECI) (Boyatzis & Goleman, 2002). This 74 item questionnaire measures 18 competencies organized into four clusters. The self-awareness cluster includes competencies relating to emotional self-awareness, accurate self-assessment and self-confidence. Social awareness reflects empathy, organizational awareness and service orientation. Self-management is assessed in terms of emotional self-control, transparency, conscientiousness, adaptability, optimism, achievement orientation and initiative. Finally, relationship management is represented by developing others, inspirational leadership, change catalyst, influence, conflict management and teamwork and collaboration. Scores collected and analyzed for each of these 18 competencies included a subject’s self rating and an “others” rating, representing an average of how others (manager, peers, subordinates and others) perceive the subject on each competency. In this investigation, the “others” rating was used as our measure of individual emotional intelligence (EI).

Although emotional intelligence represents an individual-level characteristic, a number of authors have suggested that collective or group emotional intelligence is created through the product of group member interactions, a dynamic that eventually comes to characterize the group as a whole (Yang & Mossholder 2004). Consistent with that assumption, group level emotional intelligence has been operationalized in a variety of ways, including: as aggregates (e.g., the mean) (Rapisarda, 2002); as a threshold above which group members must score (Huy 1999); as the team leader’s emotional
intelligence (Feyerherm and Rice, 2002) or perhaps as the highest EI score among a group. Like Jordon, Ashkanasy, Hartel, & Hooper (2002), however, we agree that an average group emotional intelligence is a reasonable indicator of emotional intelligence as a shared group property. Further, given that higher levels of EI are more likely to elicit a particular response, groups above the 75th percentile of EI scores were classified as high in emotional intelligence, all others were classified as low. Further, with a relatively small standard deviation among EI scores (SD = .18) in our sample, the existing dispersion pattern makes it difficult to split the sample any other way (e.g., a split at the 50th percentile or a high, medium, and low group categorization.)

Diversity was defined by within-group variations in age, sex and race. For the age dimension, group standard deviations in excess of 6 years of age were considered to represent a wide enough dispersion of age within a group to resemble a heterogeneous mix. Groups with variation in sex or race among its members were also considered to be diverse. The extent of group heterogeneity is represented by the number of dimensions that were diverse. Accordingly, heterogeneity is measured along a continuum, ranging from 0 (less heterogeneous) to 3 (more heterogeneous). For the purpose of conducting group comparisons, groups with a heterogeneity rating of 0 or 1 were defined as homogeneous, while groups with a heterogeneity rating of 2 or 3 were considered to be heterogeneous.

Group heterogeneity ratings are found in Table 1. As seen in the table, homogenous groups have minimal levels of diversity and contain: 1) no diversity in race (all group members were Caucasian); 2) narrow limits in age range (SD < 6 yrs.); and 3) either no variations in gender or only a small variation (2 groups contained no females, 3 groups contained just 1 female; and 1 group contained 2 females). Conversely, heterogeneous groups are diverse on at least two of the three dimensions and contained: 1) both males and females; 2) broad or narrow limits in age range; and 3) either no racial diversity or some variations in race between group members (at least 1 or 2 members of a different race).

Table 1. Group Heterogeneity Assessments

<table>
<thead>
<tr>
<th>Members</th>
<th>Age</th>
<th>Sex</th>
<th>Race</th>
<th>Heterogeneity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Not Diverse</td>
<td>Not Diverse</td>
<td>Not Diverse</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Not Diverse</td>
<td>Not Diverse</td>
<td>Not Diverse</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Not Diverse</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Not Diverse</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Not Diverse</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Not Diverse</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 1 - continued  Group Heterogeneity Assessments

<table>
<thead>
<tr>
<th>Members</th>
<th>Age</th>
<th>Sex</th>
<th>Race</th>
<th>Heterogeneity</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Diverse</td>
<td>Diverse</td>
<td>Not Diverse</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Not Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Diverse</td>
<td>Diverse</td>
<td>Diverse</td>
<td>3</td>
</tr>
</tbody>
</table>

The dependent variable, group performance, was derived from an average of course grades in two executive MBA courses: Organizational Behavior and Strategic Management. For each of these two courses, final grades were predominately based on group performance scores for a variety of group-based activities conducted throughout the duration of each course. Overall group performance was obtained by taking the average of both course grades for each member in the group and then calculating a group average. Transcript information was collected from university records.

Results

**Moderating Effect of Emotional Intelligence.**

This study examined how emotional intelligence, is likely to affect the relationship between group heterogeneity and group performance. As seen in Figure 1, heterogeneous groups are more noticeably impacted by emotional intelligence. Specifically, as emotional intelligence increases, heterogeneous groups experience greater gains in their performance level compared to their homogeneous counterparts. Therefore, although both groups experience increased performance levels, heterogeneous groups are more likely to benefit from higher levels of emotional intelligence within the group.
To further analyze this pattern of results, differences in grade point average were observed across each of the 18 EI competencies. Table 2 reveals differences in the average GPA for high and low group competency levels and between heterogeneous and homogeneous groups. From this we see that certain competencies have a large impact on group performance. Further, each heterogeneity category is differentially impacted by group member competencies. In particular, performance improvements within heterogeneous groups tended to be greatly facilitated by high levels of self-confidence (.20), influence (.12), service orientation (.08), and conflict management (.07). Similarly, although to a lesser extent, homogeneous groups are also positively impacted by group self-confidence (.07) and service orientation (.07). Additionally, these groups also benefit from high levels of adaptability (.07) and developing others (.07).

It’s interesting to note that unlike their homogeneous counterparts, heterogeneous groups benefit greatly from high group competency in conflict management and influence. We surmise that heterogeneous groups that are high in these dimensions are likely to be able to minimize conflict and therefore can take full advantage of the wide-ranging mix of attributes that come with a diverse array of people. Groups high in conflict management encourage debate and open discussion, handling disagreement in ways that foster new insights, thereby allowing the group to do a better job of reaping the benefits of their collective wisdom. Furthermore, we anticipate that with higher levels of influence, these group members view consensus building as critical in their ability to persuade one another. As a result, they work hard to try and understand each others positions, showing tremendous empathy and tact in their approach to group problem solving.
Table 2. GPA Performance for High/Low Group Competency by Heterogeneity

<table>
<thead>
<tr>
<th></th>
<th>Homogeneous</th>
<th></th>
<th>Heterogeneous</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Competence</td>
<td>Low Competence</td>
<td>Diff</td>
<td>High Competence</td>
</tr>
<tr>
<td>Self-Awareness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Awareness</td>
<td>3.801</td>
<td>3.785</td>
<td>0.02</td>
<td>3.720</td>
</tr>
<tr>
<td>Accurate Self-Assessment</td>
<td>3.818</td>
<td>3.773</td>
<td>0.04</td>
<td>3.658</td>
</tr>
<tr>
<td>Self-Confidence</td>
<td>3.824</td>
<td>3.752</td>
<td>0.07</td>
<td>3.876</td>
</tr>
<tr>
<td>Self-Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Control</td>
<td>3.818</td>
<td>3.773</td>
<td>0.04</td>
<td>3.658</td>
</tr>
<tr>
<td>Transparency</td>
<td>3.818</td>
<td>3.773</td>
<td>0.04</td>
<td>3.731</td>
</tr>
<tr>
<td>Adaptability</td>
<td>3.824</td>
<td>3.752</td>
<td>0.07</td>
<td>3.702</td>
</tr>
<tr>
<td>Achievement Orientation</td>
<td>3.768</td>
<td>3.798</td>
<td>-0.03</td>
<td>3.717</td>
</tr>
<tr>
<td>Initiative</td>
<td>3.779</td>
<td>3.792</td>
<td>-0.01</td>
<td>3.736</td>
</tr>
<tr>
<td>Optimism</td>
<td>3.818</td>
<td>3.773</td>
<td>0.04</td>
<td>3.738</td>
</tr>
<tr>
<td>Social Awareness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>3.818</td>
<td>3.773</td>
<td>0.04</td>
<td>3.730</td>
</tr>
<tr>
<td>Organizational Awareness</td>
<td>3.779</td>
<td>3.797</td>
<td>-0.02</td>
<td>3.634</td>
</tr>
<tr>
<td>Service Orientation</td>
<td>3.824</td>
<td>3.752</td>
<td>0.07</td>
<td>3.770</td>
</tr>
<tr>
<td>Relationship Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing Others</td>
<td>3.823</td>
<td>3.753</td>
<td>0.07</td>
<td>3.737</td>
</tr>
<tr>
<td>Inspirational Leadership</td>
<td>3.818</td>
<td>3.773</td>
<td>0.04</td>
<td>3.726</td>
</tr>
<tr>
<td>Change Catalyst</td>
<td>3.818</td>
<td>3.773</td>
<td>0.04</td>
<td>3.692</td>
</tr>
<tr>
<td>Influence</td>
<td>3.779</td>
<td>3.797</td>
<td>-0.02</td>
<td>3.807</td>
</tr>
<tr>
<td>Conflict Management</td>
<td>3.801</td>
<td>3.785</td>
<td>0.02</td>
<td>3.755</td>
</tr>
<tr>
<td>Teamwork</td>
<td>3.751</td>
<td>3.807</td>
<td>-0.06</td>
<td>3.704</td>
</tr>
</tbody>
</table>

Another interesting finding relates to the magnitude of the effects of self-confidence. As seen in Figure 2, both groups performed better when their members were highly self-confident. This is especially true for heterogeneous groups, who showed a sizeable improvement in their GPA. This finding suggests that heterogeneous groups that are high in this competency have a clear advantage. Specifically, we believe that self-confidence
gives the heterogeneous group member the requisite self-assurance for taking on the tough challenge of integrating the eclectic mix of ideas and personalities that comes with increased levels of heterogeneity. Moreover, this competency gives a group member the strength to voice their opinions, staying unfazed by opposition or intimidation. As discussed in the decision-making literature, such traits are vital to the decision quality of diverse groups.

![Figure 2. Average Course GPA for Homogeneous and Heterogeneous Groups by Low/High Self-Confidence](image)

To further explore the relationship between the 18 emotional intelligence competencies and the group-based dependent variable, correlations were observed for the total sample and for both heterogeneity conditions (homogeneous/heterogeneous). As seen in Table III, emotional intelligence by itself has a weaker association with the dependent variable for homogeneous groups than for heterogeneous groups. Given that the dependent variable is a two courses average whose grades are predominately determined by group performance, it’s clear that heterogeneous groups are more likely to benefit from higher levels of emotional intelligence within the group.

Reliabilities, means, standard deviations, and inter-correlations for the emotional intelligence measures across the two heterogeneity conditions were obtained. As seen in Table 4, each of the heterogeneity manipulations demonstrated acceptable reliabilities. Internal consistency reliability coefficients ranged from .562 to .907. Although an irregularity was found in the inter-item correlations between self-control and initiative (−.262), all other significant inter-item correlations were as expected and in the predicted direction.
<table>
<thead>
<tr>
<th>Measure</th>
<th>All Subjects (n=100)</th>
<th>Subjects in Homogeneous Groups (n=70)</th>
<th>Subjects in Heterogeneous Groups (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Awareness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Awareness</td>
<td>.142</td>
<td>.055</td>
<td>.340</td>
</tr>
<tr>
<td>Accurate Self-Assessment</td>
<td>.079</td>
<td>-.039</td>
<td>.325</td>
</tr>
<tr>
<td>Self-Confidence</td>
<td>.242*</td>
<td>.213</td>
<td>.315</td>
</tr>
<tr>
<td><strong>Self-Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Control</td>
<td>.225*</td>
<td>.117</td>
<td>.439*</td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>.198</td>
<td>.123</td>
<td>.424*</td>
</tr>
<tr>
<td>Adaptability</td>
<td>.153</td>
<td>.054</td>
<td>.367*</td>
</tr>
<tr>
<td>Achievement Orientation</td>
<td>.230*</td>
<td>.135</td>
<td>.459</td>
</tr>
<tr>
<td>Initiative</td>
<td>.166</td>
<td>.146</td>
<td>.207</td>
</tr>
<tr>
<td>Optimism</td>
<td>.129</td>
<td>.001</td>
<td>.368*</td>
</tr>
<tr>
<td><strong>Social Awareness</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>.185</td>
<td>.034</td>
<td>.500**</td>
</tr>
<tr>
<td>Organizational Awareness</td>
<td>.184</td>
<td>.055</td>
<td>.462*</td>
</tr>
<tr>
<td>Service Orientation</td>
<td>.117</td>
<td>-.015</td>
<td>.431*</td>
</tr>
<tr>
<td><strong>Relationship Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing Others</td>
<td>.309**</td>
<td>.203</td>
<td>.556**</td>
</tr>
<tr>
<td>Inspirational Leadership</td>
<td>.281**</td>
<td>.169</td>
<td>.551**</td>
</tr>
<tr>
<td>Change Catalyst</td>
<td>.223*</td>
<td>.139</td>
<td>.460*</td>
</tr>
<tr>
<td>Influence</td>
<td>.258*</td>
<td>.124</td>
<td>.581**</td>
</tr>
<tr>
<td>Conflict Management</td>
<td>.287**</td>
<td>.270*</td>
<td>.341</td>
</tr>
<tr>
<td>Teamwork</td>
<td>.210*</td>
<td>.148</td>
<td>.344</td>
</tr>
<tr>
<td><strong>Overall Emotional Intelligence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.240</td>
<td>.121</td>
<td>.485**</td>
</tr>
</tbody>
</table>

2-tailed significance: ** p<.01, * p<.05
Table 4. Reliabilities, Means, Standard Deviations, and Inter-correlations for EI Measures

<table>
<thead>
<tr>
<th>EI Dimension</th>
<th>Alpha</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Awareness</strong></td>
<td>0.794</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homogeneous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Awareness</td>
<td>2.863</td>
<td>.305</td>
<td>.781**</td>
<td>.410*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Accurate Self-Assessment</td>
<td>3.017</td>
<td>.309</td>
<td>-</td>
<td>.471**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-Confidence</td>
<td>3.790</td>
<td>.226</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Heterogeneous</td>
<td>0.700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Awareness</td>
<td>2.853</td>
<td>.298</td>
<td>.656**</td>
<td>.288**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Accurate Self-Assessment</td>
<td>2.953</td>
<td>.273</td>
<td>-</td>
<td>.348**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-Confidence</td>
<td>3.765</td>
<td>.242</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Self-Management</strong></td>
<td>0.894</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homogeneous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Control</td>
<td>3.107</td>
<td>.370</td>
<td>.545**</td>
<td>.702**</td>
<td>.501**</td>
<td>.234</td>
<td>.805**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>3.057</td>
<td>.300</td>
<td>-</td>
<td>.702**</td>
<td>.654**</td>
<td>.297</td>
<td>.743**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>3.743</td>
<td>.227</td>
<td>-</td>
<td>.728**</td>
<td>.508**</td>
<td>.870**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement Orientation</td>
<td>3.087</td>
<td>.227</td>
<td>-</td>
<td>.661**</td>
<td>.704**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td>3.703</td>
<td>.214</td>
<td>-</td>
<td>.449*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>3.270</td>
<td>.339</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterogeneous</td>
<td>0.754</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Control</td>
<td>3.012</td>
<td>.363</td>
<td>.234</td>
<td>.442**</td>
<td>.245*</td>
<td>.262*</td>
<td>.647**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trustworthiness</td>
<td>3.051</td>
<td>.297</td>
<td>-</td>
<td>.345**</td>
<td>.433**</td>
<td>.355**</td>
<td>.526**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>3.731</td>
<td>.165</td>
<td>-</td>
<td>.516**</td>
<td>.376**</td>
<td>.612**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement Orientation</td>
<td>3.043</td>
<td>.221</td>
<td>-</td>
<td>.492**</td>
<td>.528**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td>3.685</td>
<td>.183</td>
<td>-</td>
<td>.228</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimism</td>
<td>3.212</td>
<td>.248</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Awareness</strong></td>
<td>0.756</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homogeneous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>3.747</td>
<td>.245</td>
<td>.574**</td>
<td>.446*</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Organizational Awareness</td>
<td>3.140</td>
<td>.291</td>
<td>-</td>
<td>.534**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Service Orientation</td>
<td>3.830</td>
<td>.199</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Heterogeneous</td>
<td>0.562</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>3.737</td>
<td>.208</td>
<td>.362**</td>
<td>.341**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Organizational Awareness</td>
<td>3.028</td>
<td>.209</td>
<td>-</td>
<td>.266**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Service Orientation</td>
<td>3.816</td>
<td>.166</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Relationship Management</strong></td>
<td>0.907</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homogeneous</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing Others</td>
<td>3.007</td>
<td>.310</td>
<td>.680**</td>
<td>.684**</td>
<td>.632**</td>
<td>.348</td>
<td>.778**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspirational Leadership</td>
<td>2.990</td>
<td>.380</td>
<td>-</td>
<td>.677**</td>
<td>.801**</td>
<td>.539**</td>
<td>.717**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Catalyst</td>
<td>2.823</td>
<td>.283</td>
<td>-</td>
<td>.648**</td>
<td>.555**</td>
<td>.483**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence</td>
<td>3.000</td>
<td>.370</td>
<td>-</td>
<td>.543**</td>
<td>.700**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict Management</td>
<td>3.640</td>
<td>.321</td>
<td>-</td>
<td>.486**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td>3.143</td>
<td>.331</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterogeneous</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing Others</td>
<td>2.928</td>
<td>.299</td>
<td>.705**</td>
<td>.514**</td>
<td>.377**</td>
<td>.384**</td>
<td>.437**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspirational Leadership</td>
<td>2.924</td>
<td>.343</td>
<td>-</td>
<td>.629**</td>
<td>.676**</td>
<td>.445**</td>
<td>.608**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Catalyst</td>
<td>2.807</td>
<td>.276</td>
<td>-</td>
<td>.414**</td>
<td>.517**</td>
<td>.476**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence</td>
<td>2.960</td>
<td>.309</td>
<td>-</td>
<td>.479**</td>
<td>.605**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict Management</td>
<td>3.625</td>
<td>.215</td>
<td>-</td>
<td>.490**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td>3.094</td>
<td>.288</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2-tailed significance: ** p<.01, * p<.05
Conclusions and Implications

Despite the volume of studies investigating the link between heterogeneity and group performance, there has been little progress made in understanding what mechanisms underlie such a relationship. In the present study, we report case studies of groups in an executive education setting in order to illuminate the impact of emotional intelligence on the heterogeneity-group performance relationship. Consistent with our predictions, results showed that as group emotional intelligence improves, the resulting increases in group performance are larger among more heterogeneous groups. In addition, this investigation also revealed that three group-level competencies play a big part in the success of diverse groups: conflict management, influence and self-confidence.

Understanding the emotional intelligence abilities of groups and the individual competencies upon which they are based provides a framework for drawing inferences about the relationship between group diversity and group performance. The case studies described here help to support inferences about the cognitive and social processes that help to explain group behavior and have significant implications for the group member selection process. For example, results from this study reveal that higher performing groups are those that are represented by a heterogeneous mix of self-confident individuals who have the conviction that is essential for taking on divergent views. An optimal group composition would therefore require a diverse blend of individuals, each with a relatively strong sense of their self worth.

Clearly, research of this kind provides a useful way of thinking about and summing-up much of what is observed and experienced at the group-level in an executive education program, as well as group based activities within organizations. When reduced to a catch-all that is used to explain everything, however, emotional intelligence is limited in its application. But used descriptively as a summary term directing attention to patterned competencies which require explanation, the emotional intelligence notion has a useful role to play in group analysis.

Research to advance the perspective on emotional intelligence outlined here might take several directions. First, additional comparative case studies of the kind described here can be used to further evaluate, refine and extend our thoughts regarding an integrative model. Secondly, a broader definition of diversity that includes a variety of internal, external and organizational dimensions would help to strengthen our assertions. Finally, any claim as to the benefits of emotional intelligence is limited to the extent that the performance of heterogeneous groups rarely exceeded that of their homogeneous equivalent. In this investigation, higher levels of EI only serve to reduce the magnitude of the advantage that was held by homogeneous groups. Perhaps a different group performance measure would do a better job of a capturing the totality of the performance-enhancing effects of diversity within groups.
References


