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Peer Evaluations Influence Self-Assessment of Emotional Intelligence

Elizabeth R. Uhl
Melissa J. Glorioso
U.S. Army Research Institute

LTC Anthony P. Randall
Maneuver Center of Excellence

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Department of the Army
Deputy Chief of Staff, G1

Authorized and approved:

MICHELLE L. ZBYLUT, Ph.D.
Director

Technical reviews by

Celeste Sanders, U.S. Army Research Institute
Ava Santos, U.S. Army Research Institute

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NOTE: The findings in this Technical Report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.
Emotional intelligence is an important leadership skill; research has demonstrated that emotional intelligence is related to leadership effectiveness (Koh & O’Higgins, 2018). The current research examined how receiving peer feedback on emotional intelligence influenced one’s self-assessment of emotional intelligence in a junior leadership course. The findings suggest that individuals who received peer feedback on their emotional intelligence changed their self-assessment less over time compared to individuals who did not receive peer feedback. However, when the individuals who received peer feedback did change their self-assessment, they were likely to change their self-assessment to be more in line with how their peers assessed them. Peer assessments of emotional intelligence were also examined as a predictor of course outcomes and, though peer assessments and course outcomes were significantly correlated, emotional intelligence did not predict course outcomes beyond traditional peer assessments.
Peer Evaluations Influence Self-Assessment of Emotional Intelligence

Elizabeth R. Uhl
Melissa J. Glorioso
U.S. Army Research Institute

LTC Anthony P. Randall
Maneuver Center of Excellence

Fort Benning Research Unit
Jennifer S. Tucker, Chief

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PEER EVALUATIONS INFLUENCE SELF-ASSESSMENT OF EMOTIONAL INTELLIGENCE

EXECUTIVE SUMMARY

Research Requirement:

The current research examined the effects of individuals completing and receiving feedback on an emotional intelligence-focused peer assessment on self-assessments of emotional intelligence. This research also examined emotional intelligence peer assessments as a predictor of course outcomes.

Procedure:

Half of the Officer Candidates (OCs) who agreed to participate in this research completed an emotional intelligence peer assessment and self-assessment on two occasions during Officer Candidate School while the other half of the participants completed only the self-assessment on both occasions. Changes in self-assessments over time were examined for the peer assessment group and the self-assessment only group. Further, the relationships between peer and self-assessments of emotional intelligence with course outcomes were examined.

Findings:

Individuals who received feedback from their peers’ assessments of their emotional intelligence changed their self-assessment less over time, compared to individuals who did not receive peer feedback. However, those who did change their self-assessment after receiving peer feedback, tended to make changes that were in line with the peer feedback they received. Further, peer assessments of emotional intelligence were significantly correlated with course outcome measures, though these assessments did not contribute above and beyond the traditional peer assessments used in the course.

Utilization and Dissemination of Findings:

The findings described in this report were briefed to the Officer Candidate School. These findings suggest that emotional intelligence is an important component in peer assessments of leadership. Though peer assessments of emotional intelligence did not add to the predictive validity of traditional peer assessments, emotional intelligence could be an area for formative assessment and development.
PEER EVALUATIONS INFLUENCE SELF-ASSESSMENT OF EMOTIONAL INTELLIGENCE

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Introduction

The U.S. Army defines leadership as “the process of influencing people by providing purpose, direction, and motivation to accomplish the mission and improve the organization” (U.S. Department of the Army, 2019, p. 1-13). The U.S. Army understands that leadership is a skill that can be developed, especially with opportunities to practice leadership and receive meaningful feedback (U.S. Department of the Army, 2019).

The attributes and competencies expected of Army leaders are described in the Leader Requirements Model (LRM, U.S. Department of the Army, 2019). Leader attributes describe what leaders should be and know. The three leader attributes are character, presence, and intellect. Each leader attribute includes several sub-attributes (see Figure 1). Leader competencies describe what leaders should do. The three leader competencies are leads, develops, and achieves. Each leader competency includes sub-competencies (see Figure 1).

Figure 1

U.S. Army Leader Requirements Model
Several of the sub-attributes and sub-competencies identified in the LRM overlap with the emotional intelligence (EI) competencies identified by Goleman, et al. (2002; see Table 1), including empathy, developing others, and self-confidence. EI is “the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p. 189). Sewell (2009) compared the LRM with Goleman et al.’s model of EI and concluded that emotional and interpersonal components of the LRM have considerable parallels with the EI competencies described in Goleman et al.’s model. Taylor-Clark (2015) conducted an extensive crosswalk of EI competencies and the LRM. It is important to note that there is not a one-to-one mapping of EI competencies to LRM attributes and competencies. Rather, there is a one-to-many mapping. For example, the EI competency empathy obviously maps to the LRM attribute of empathy, but it also maps to the LRM competencies builds trust and leads others. Additionally, the EI competency adaptability maps to the LRM competencies and attributes resilience, mental agility, innovation, and leads others. See Taylor-Clark (2015) for the full cross-walk.

Table 1

<table>
<thead>
<tr>
<th>Personal Competence</th>
<th>Social Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-Awareness</strong></td>
<td><strong>Social Awareness</strong></td>
</tr>
<tr>
<td>• Emotional Self-awareness</td>
<td>• Empathy</td>
</tr>
<tr>
<td>• Accurate Self-assessment</td>
<td>• Organizational Awareness</td>
</tr>
<tr>
<td></td>
<td>• Service</td>
</tr>
<tr>
<td><strong>Self-Management</strong></td>
<td><strong>Relationship Management</strong></td>
</tr>
<tr>
<td>• Emotional self-control</td>
<td>• Inspirational leadership</td>
</tr>
<tr>
<td>• Transparency</td>
<td>• Influence</td>
</tr>
<tr>
<td>• Adaptability</td>
<td>• Developing Others</td>
</tr>
<tr>
<td>• Achievement</td>
<td>• Change Catalyst</td>
</tr>
<tr>
<td>• Initiative</td>
<td>• Conflict Management</td>
</tr>
<tr>
<td>• Optimism</td>
<td>• Teamwork and Collaboration</td>
</tr>
</tbody>
</table>

**EI and Leadership**

Though EI has not been formally identified as a leader competency by the Army, emotional intelligence’s many competencies overlap with many of the attributes and competencies in the LRM (Hilmes, 2015). For example, ad hoc efforts to assess and provide feedback on EI exist, such as the Character Development Instructor Course at the Maneuver Center of Excellence, Fort Benning, GA (see Randall et al., 2019).

Additionally, researchers have argued that EI is an important component of successful leadership (e.g., Goleman et al., 2002; Sewell, 2009). For example, Rosete and Ciarrachi (2005) found that scores on an ability-based measure of EI were significantly correlated with manager ratings of leadership effectiveness. Furthermore, Koh and O’Higgins (2018) found significant
correlations between self-ratings of EI and measures of perceived and actual leadership
effectiveness, and, in a meta-analysis examining the relationship between EI and leadership
behaviors (Harms & Credé, 2010), EI was positively correlated with measures of
transformational leadership.

Self and Peer Assessment of EI

Emotional intelligence is considered a malleable skill, but in order to focus on EI for self-
development, individuals need to receive meaningful feedback on their EI (Goleman et al.,
2002). For feedback to be meaningful, it should be timely, sufficiently detailed, appropriate, and
actionable (Gibbs & Simpson, 2005). Peer feedback, in particular, can offer an effective and
efficient alternative to instructor feedback. Instructors often manage a large number of students,
which can make providing one-on-one feedback difficult. When broken into small groups (e.g.,
squads), peers can provide feedback to those with whom they work closely. There are other
potential advantages of peer assessments – for example, peers, especially in an Army training
environment, often see each other in a much wider variety of contexts than their instructors and
can share observations an instructor might miss.

Researchers have suggested that peer assessments can support self-assessments (Black et
al., 2003; Reinholz, 2016). There are two broad mechanisms through which this can happen: 1)
the act of assessing others helps an individual realize what good performance looks like, and 2)
receiving feedback from others can inform an individual’s self-assessment (Liu & Carless,
2006). However, research that has included self and peer assessments has typically sought to use
both peer and self-assessments to achieve fairness (for example, in the context of group projects
where not all individuals have contributed equally) and accuracy in the assessment, rather than
examine the impact that receiving peer feedback has on one’s self-assessment (Dochy et al.,
1999). To date little research has examined the effects of peer assessments on self-assessments,
and no research has examined the effects of peers’ assessments of EI on self-assessments of EI.

The current research examined the effects of peer assessments of EI on self-assessments
of EI in a leadership course. The relationships between self and peer assessments of EI and
course outcomes were also examined.

Hypothesis 1: Individuals who are assessed by their peers and receive peer assessment
feedback will be more likely to change their self-assessments over time than individuals who do
not receive peer assessment feedback.

Hypothesis 2: Peer assessments of an individual’s EI will be positively correlated with
the individual’s course outcomes, such as leadership scores and final course scores.

Method

Participants

Participants were recruited from four classes of the Officer Candidate School. In total,
339 U.S. Army Officer Candidates (OCs) completed the assessments at both time points (during
the first three weeks of the course and during the last three weeks of the course).
Measures

*Emotional Intelligence Self- and Peer-Assessment*

Raters were asked to rate each of their three assigned peers and themselves on each of the 17 EI competencies (see Table 1) on a five-point scale, where 1 = low and 5 = high. The assessment sheets also included the definitions of each competency for easy reference. Scores on the self and peer assessments could range from 17 to 85.

Course Outcomes

Course outcome data were available for one OCS class (N = 118). These data included grades on two field leadership opportunities, one garrison leadership opportunity, order of merit points, and scores on the OCS peer assessments. Each Soldier performed as a squad leader during a field exercise on two occasions. Leadership performance was graded for each field exercise by instructors, and field leadership scores were assigned out of 330 points. Additionally, each candidate served in a garrison leadership position for one week during the course, and leadership performance was graded by instructors resulting in a garrison leadership score out of 330 points. Order of merit points were based on an individual’s overall score in the course. Finally, the traditional OCS peer assessment included two squad-level assessments. For each assessment, individuals ranked the other members of their squad from one (highest overall performer in their squad) to n-1 (where n is the number of members in the squad), without including themselves in the ranking. A peer assessment grade out of 20 points was then calculated based on how squad members ranked each other. The “traditional” peer assessment grade is a component of the course and is not related to the EI peer assessment.

Procedure

OCs were divided into groups by platoon. Groups were either asked to complete an EI self-assessment on two occasions during OCS [Self-Assessment Only (SAO) group] or to complete EI self- and peer assessments [Peer Assessment (PA) group]. Individuals in the PA group received feedback from their peers right after the assessments were completed and were able to compare it to their self-assessment. The first assessments (T1) were completed in the first three weeks of the 12-week course, and the second assessments (T2) were completed in the final three weeks of the course. All OCs completed the traditional peer assessment at three points during the course (e.g., beginning, middle, and end).

Results

Changes in Self-Assessments over Time

There was not a significant difference between groups on the self-assessments at Time 1 (PA: M = 66.30, SD = 6.95, SAO: M = 66.29, SD = 7.23; t (562) = -.02, p = .89) or Time 2 (PA: M = 67.43, SD = 7.85, SAO: M = 67.86, SD= 8.35; t (339) = .43, p = .55). Overall, self-assessment scores increased slightly from Time 1 (M = 66.22, SD = 7.13) to Time 2 (M = 67.59, SD = 8.07), t (338) = -.383, p < .001. Examining change scores for the Peer Assessment group (PA; M = 1.21, SD = 6.15) and the Self-Assessment Only group (SAO; M = 1.60, SD = 7.22)
showed no significant difference ($t (337) = -.53, p = .60$). However, simple change scores (i.e., Time 2 score subtracted from Time 1 score) do not necessarily reflect the volatility of the ratings over time. When change scores were transformed into their absolute value (indicating the degree but not the direction of change), SAO ($M = 5.85, SD = 4.49$) scores changed more than PA scores ($M = 4.04, SD = 4.79$), $t (337) = 3.50, p = .001$. See Table 2.

**Table 2**

EI Self-Assessment Scores by Time and Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Time 1 average EI self-assessment score</th>
<th>Time 2 average EI self-assessment score</th>
<th>Average change score</th>
<th>Absolute Value Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Assessment</td>
<td>66.30 (6.95)</td>
<td>67.43 (7.85)</td>
<td>1.21 (6.15)</td>
<td>4.04 (4.79)</td>
</tr>
<tr>
<td>Self-Assessment Only</td>
<td>66.29 (7.23)</td>
<td>67.86 (8.35)</td>
<td>1.60 (7.22)</td>
<td>5.85 (4.49)</td>
</tr>
</tbody>
</table>

$^* p < .01.$

**Type of Change over Time**

To further examine how self-assessments changed over time, change scores were recoded to represent whether the individuals’ self-assessment scores went up by 1 or more points, went down one or more points, or did not change from Time 1 to Time 2 (see Table 3). Type of change varied by group ($X^2 (2) = 47.85, p < .001$), notably, 34.3% of individuals in the PA group did not change their self-assessments over time, compared to 2.9% of individuals in the SAO group.

**Table 3**

Change Over Time by Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Scores went down (rated self lower at T2)</th>
<th>No Change</th>
<th>Scores went up (rated self higher at T2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Assessment</td>
<td>24.4%</td>
<td>34.3%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Self-Assessment Only</td>
<td>35.5%</td>
<td>2.9%</td>
<td>61.6%</td>
</tr>
</tbody>
</table>

**Relation between Peer and Self-Assessment**

The correlation between self and peer assessments increased from Time 1 ($r = .16, p = .007$) to Time 2 ($r = .21, p < .001$). Exploratory analyses were conducted to examine the impact of peer assessments on the type of change in self-assessments. For these analyses, self and peer scores at Time 1 were compared and any difference between self and peer scores was counted as
a difference between scores. Almost half of the individuals who rated themselves lower than their peers rated themselves higher at Time 2 (48.7%) while a little over a third of the individuals who rated themselves higher than their peers rated themselves lower at Time 2 (38.0%), $X^2(2) = 13.19, p = .001$, see Table 4.

Table 4

_Type of Change over Time Within Peer Assessment Group_

<table>
<thead>
<tr>
<th>Group</th>
<th>Scores went down (rated self lower at T2)</th>
<th>No Change</th>
<th>Scores went up (rated self higher at T2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Self Lower than Peers at T1</td>
<td>16.8%</td>
<td>34.5%</td>
<td>48.7%</td>
</tr>
<tr>
<td>Rated Self Higher than Peers at T1</td>
<td>38.0%</td>
<td>34.2%</td>
<td>27.8%</td>
</tr>
</tbody>
</table>

_Correlation of EI Peer and Self-Assessments with Course Outcomes_

Course outcome data were available for one OCS class ($n = 118$, of whom 64 completed the EI peer assessment). For this subgroup, the correlations between peer assessments and course outcomes were examined (see Table 5). Course outcomes included scores on field and garrison leadership events, the traditional OCS squad-level peer assessments, and Order of Merit List (OML) scores, which represented one’s final standing in OCS. As can be seen in Table 4, EI self-assessments were not significantly related to any course outcomes, while the EI and squad peer assessments were significantly related to field leadership 1 scores, garrison leadership scores, and OML scores. EI peer assessment scores were also significantly and positively related to traditional squad peer assessment scores.
Table 5

Correlation of EI Peer and Self-Assessments with Course Outcomes

<table>
<thead>
<tr>
<th></th>
<th>EI SA (Ave)</th>
<th>EI PA (Ave)</th>
<th>Traditional SQ PA (Ave)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI PA (Ave)</td>
<td>.19**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ PA (Ave)</td>
<td>.07</td>
<td>.43**</td>
<td></td>
</tr>
<tr>
<td>Field Leadership 1</td>
<td>.13</td>
<td>.30*</td>
<td>.32**</td>
</tr>
<tr>
<td>Field Leadership 2</td>
<td>-.04</td>
<td>-.02</td>
<td>.08</td>
</tr>
<tr>
<td>Garrison Leadership</td>
<td>.11</td>
<td>.29*</td>
<td>.25**</td>
</tr>
<tr>
<td>OML</td>
<td>.03</td>
<td>.38**</td>
<td>.56**</td>
</tr>
</tbody>
</table>

Note. EI PA = Emotional Intelligence Peer Assessment; EI SA = Emotional Intelligence Self-Assessment; SQ PA = Traditional Squad Peer Assessment; Ave = average.
* p < .05, ** p < .01.

EI and Squad Peer Assessments as Predictors of Course Outcomes

EI and squad peer assessments were entered into a regression analysis to examine the relative predictive validity for OML scores (see Table 6). Squad peer assessments were a significant predictor of OML scores, but EI peer assessments did not add predictive validity beyond the squad peer assessments, $F(1, 62) = 30.11, p < .001$. The results were similar for field leadership scores and garrison leadership scores.

Table 6

Regression model with EI and Squad Peer Assessments as Predictors of OML

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>β</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>617.22**</td>
<td></td>
<td>49.27</td>
</tr>
<tr>
<td>Squad PA</td>
<td>8.77**</td>
<td>.51</td>
<td>1.97</td>
</tr>
<tr>
<td>EI PA</td>
<td>0.96</td>
<td>.15</td>
<td>0.76</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.33</td>
<td></td>
</tr>
</tbody>
</table>

** p < .01.

Discussion

This research examined the effects of individuals completing and receiving feedback on an emotional intelligence-focused peer assessment on self-assessments of emotional intelligence. This research also examined emotional intelligence peer assessments as a predictor of course outcomes. Two hypotheses were examined: 1) individuals who are assessed by their peers and receive peer assessment feedback will be more likely to change their self-assessments over time than individuals who do not receive peer assessment feedback, and 2) peer assessments of an
individual’s EI will be positively correlated with the individual’s course outcomes, such as leadership scores and final course scores.

Contrary to the first hypothesis, only 65.7% of individuals who received peer feedback (PA group) changed their self-assessments at Time 2, while 97.1% of individuals who did not receive peer feedback (SAO group) changed their self-assessments at Time 2. There are several possible reasons why fewer individuals in the PA group changed their self-assessments. On the one hand, it might be that feedback from their peers reinforced their self-assessments. On the other hand, early in the course, they may not trust their peers’ abilities to rate them accurately. However, among those who received peer feedback and changed their self-assessment from Time 1 to Time 2, the change at Time 2 was typically consistent with the peer feedback they received. That is, most of the individuals who rated themselves higher than their peers at Time 1 rated themselves lower at Time 2 and most of the individuals who rated themselves lower than their peers at Time 2 rated themselves higher at Time 2. These findings suggest that peer feedback might affect one’s self-assessments, and that EI peer assessments could be a useful tool for individual development.

Consistent with the second hypothesis, both traditional and EI peer assessments were correlated with course outcomes. Though EI and traditional peer assessment scores were correlated with scores on the first field leadership exercise, the garrison leadership exercise, and the OML, neither EI nor traditional peer assessment scores were related to scores on the second field leadership exercise. It is unclear why this is the case. This could be due to the somewhat reduced variability in scores during the second field leadership exercise. EI peer assessment scores were also significantly and positively related to traditional peer assessment scores, though EI peer assessments did not predict course outcomes beyond the traditional squad peer assessment scores. Self-assessment of EI was not significantly correlated with course outcomes. This suggests that one’s emotional intelligence is related to performance in this leadership course and how peers rate one another, but individuals may not have accurate self-awareness of their EI. Therefore, EI could be an important area for individual development. It could be useful to incorporate peer assessments of EI into leadership courses as a source of formative feedback. This may be especially useful in courses in which instructors have limited time and tools for providing individualized feedback.

One limitation of the current study was that emotional intelligence was only considered at two points in the course. It would be interesting to examine the impact of focusing on emotional intelligence throughout the course or even throughout one’s Army career. In the current study, OCs were given limited guidance on how to use the EI feedback they received or how to try to improve their EI. Future research could examine how best to use data from peer and self-assessments for individual development.
References


