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Relationship between Iranian EFL learners' emotional intelligence and their performance on cloze test

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Abstract

To contribute further to the investigation of the impact of individual differences in language test performance, this study probes the relationship between foreign language learners' emotional intelligence (EI) and their performance on cloze tests. For the purpose of this study, 82 intermediate EFL learners were selected from the University of Zanjan. Schutte Emotional Intelligence Scale (SEIS, Schutte et.al, 1998) was used to assess emotional intelligence and its components based on Mayer and Salovey's view (1990), namely, appraisal of emotions in the self (AES), appraisal of emotions in others (AEO), emotional expression (EE), emotional regulation of the self (ERS), emotional regulation of others (ERO), and utilization of emotions for problem solving (UEPS). The results indicated no statistically significant relationship between EI and cloze test performance. Out of six components of EI, ERS and AES were found to be positively significantly associated with cloze test performance. As to gender differences in emotional intelligence, EI was not associated with gender. However, two components of EI, namely, ERS and ERO, differed significantly between males and females. Results also demonstrated that males' performance on cloze test was significantly better than females' performance. Discussions underscored the importance of incorporating programs for enhancing emotional intelligence related skills at schools and universities.

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Keywords: Emotional Intelligence; Emotional Regulation of the Self; Appraisal of Emotions in Self; Cloze Test; EFL Learners

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1. Introduction

Tests are considered as an inseparable part of teaching and learning and their significant contribution to the educational process cannot be overlooked. On the one hand, they represent the effectiveness of teaching methods or instructions; on the other hand, they are used to assess learners’ knowledge, that is, they “reflect learning” (Black & Wiliam, 1998). According to Alderson and Wall (1993) tests affect what goes on in the classroom, the educational system and society as a whole. Language tests like other tests play an influential role in English Language Teaching (ELT) milieu.

In spite of numerous attempts for developing “alternatives” (Brown, 2004) in assessment, tests are widely used as main tools for assessing learners’ language knowledge. In Kubiszyn and Borich (2003) words “test use is more likely to increase than decrease in the foreseeable future” (p.11). Besides, test results are used for making decisions about individuals; hence they affect individuals’ lives in terms of financial, social, and educational aspects. Shohamy (2001) called for the need to the investigation of tests and pointed out that testing must be continuously examined and this examination of testing must be done with care because tests are used for making high-stake decisions. Bachman and Palmer (1996) believe that test takers can be affected by three aspects of test taking procedure: “1) the experience of taking and in some cases, of preparing for the tests, 2) the feedback they receive about their performance on the tests, and 3) the decisions that may be made about them on the bases of their test scores” (p. 31). Thus, it is essential that factors influencing test performance be taken into account.

There are various factors that affect language test performance. In order to identify these factors, Bachman (2000) classified related research about factors affecting performance on language tests into three areas: “characteristics of the testing procedures, characteristics of the test takers themselves and the process and strategies used by test takers in response to test tasks” (p.51). The aim of the present study is to contribute further to the new array of research into individual differences in language test performance.

According to Krashen (1981, as cited in Pishghadam, 2009) “learning a second language seems to be difficult, demanding, and full of stress for learners, especially for adults, because learners have to speak in another language which is not their mother tongue, make lots of mistakes and may face setbacks” (p. 40). Then, in second/foreign language classrooms, learners tackle different psychological factors that influence their learning and, consequently, their performance on language tests. Among psychological factors, Emotional Intelligence (EI) seems to play a crucial role in performance on cloze tests. Thus, the issue has been put under investigation in this article.

2. Literature review

The last two decades can be regarded as a prosperous time for the emergence and conceptual development of emotional intelligence. The concept of EI and its theory as it is used in today literature has been developed by John Mayer and Peter Salovey in 1990.

These authors examined the relationship between intelligence and emotions while for years (1900-1969) these two fields were considered separate areas and studied separately. In other words, emotions were considered as an impediment to true thinking while logic was superior to feelings. Mayer and Salovey (1990) held a different view and focused on the influential role of emotions in life. They regarded “emotions as a useful source of information that helps one to make sense of and navigate the social environment” (as cited in Salovey & Grewal, 2005, p.281). In their theory, they in fact made a connection between the fields of emotion and intelligence. They initially in 1990, defined emotional intelligence as “the ability to monitor one’s own and other’s feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (Mayer & Salovey, 1990, p.189). Later in 1997, these authors refined their definition of EI and proposed the following definition:
Emotional intelligence is the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive, appraise, and express emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth (Mayer & Salovey, 1997, p.10).

In their recent definition they asserted that individuals with high level of EI are skilled in four areas: perceiving emotions, using emotions to facilitate thought, understanding emotions and managing emotions.

Although researchers and psychologists wrote articles about EI and investigated its potential influence on life, the public was unaware of the concept until Goleman (1995) introduced the concept of EI to the public. Goleman’s contribution to the conceptual development of EI is twofold; on the one hand, he explored the idea that success in life does not only depend on IQ but also on several intelligences and on the control of emotion. He remarked that intelligence accounts for only 20% of the total success and the rest i.e. 80% goes for emotional and social intelligences and that EI unlike IQ is not fixed and can be learned through training much faster than IQ. These notions were promising for those with low IQ. And on the other hand, he stressed that whole person possess two minds: rational and emotional mind. According to him emotional mind is the basis of our activities and that rational mind works upon it (Goleman, 1995).

Recently EI has been of great interest to researchers and educational psychologists. Multitude of studies related EI to different fields such as academic achievement (Parker, et al., 2004), work setting (Carmeli, 2003), cognitive tasks (Shuttes, Schuetplez, & Malouf, 2001), and foreign language learning (Pishghadam, 2009). Other studies by Fer (2004) and Ghanizadeh and Moafian (2009) examined the role of emotional intelligence in teaching. These studies provide evidence that emotional intelligence can enhance the quality of teaching and learning. However, the relationship between EI and cloze test performance has not been taken into account.

Thus, to shed light on the impact of individual differences in language test performance, the present study probes the relationship between EI and cloze test performance. Specifically, the present study aims to find out which components of EI based on Mayer and Salovey’s original emotional intelligence model, can predict cloze test performance. As a second objective, the researchers attempted to examine the moderating effect of gender on EI and cloze test performance. To this end, answers to the following questions were explored in the present study:

- Is there any significant relationship between emotional intelligence and cloze test performance among intermediate EFL learners?
- Is there any significant relationship between components of EI based on Mayer and Salovey's view (1990) and cloze test performance among intermediate EFL learners?
- Is there any significant difference between EI and its components among intermediate EFL learners based on gender?
- Is there any significant difference between females and males performance on cloze tests among intermediate EFL learners?

And the following null hypotheses were formulated:

- $H_01$: There is no significant relationship between emotional intelligence and cloze test performance among intermediate EFL learners.
- $H_02$: There is no significant relationship between components of EI based on Mayer and Salovey's (1990) view and cloze test performance among intermediate EFL learners.
- $H_03$: There is no significant difference between EI and its components among intermediate EFL learners based on gender.
3. Methodology

3.1. Participants

The population of this study consisted of 123 university students. They all were studying English Language Translation at the University of Zanjan. For the purpose of this study, 86 intermediate students (58 females and 28 males) were selected via a standard test (Nelson English Language Test). Their age ranged from 20 to 31 (M = 21.95 and SD = 1.67). At the end of data collection, four participants – 3 females and 1 male – excluded from the study because three of them had not completed 15 items of emotional intelligence test and one of them had not answered cloze test. So the final sample consisted of 82 intermediate EFL learners (55 females and 27 males).

3.2. Instruments

In the present study, Schutte Emotional Intelligence Scale (Schutte, et al., 1998) and Nelson cloze test were used to gather required information about EFL learners’ level of emotional intelligence and their performance on cloze test, respectively. Schutte Emotional Intelligence Scale (EIS) consisted of 33 items, Based on Mayer and Salovey's theory, EIS encompasses six components of emotional intelligence (EI), namely, appraisal of emotions in self (AES), appraisal of emotions in others (AEO), emotional expression (EE), emotional regulation of the self (ERS), emotional regulation of others (ERO), and utilization of emotions for problem solving (UEPS). This test is scored according to a Likert-type scale of five points ranging from (1=strongly disagree, to 5=strongly agree). Nelson cloze test consisted of 41 multiple choice items presented in three separate cloze passages. In order to have a homogenous group, researchers used English language proficiency test, as well.

3.2.1 Reliability and validity of EIS

With regard to the reliability of Emotional Intelligence Scale, Cronbach's alphas were reported ranging from .84 to .90, which indicates high internal consistency (Shutte, et al., 1998; Saklofske, Austin, & Miniski, 2003). In a sample of 28 college students Shutte et.al (1998) examined the test-retest reliability of EIS after two weeks, its reliability was found to be r(28)=78. With regard to the reliability of the Farsi version of the test, in a sample of 135 college students, Besharat (2007), as mentioned in Besharat et al. (2010), reported a Cronbach's alpha of .88. According to Pallant's guidelines (2007) it is an acceptable internal consistency. In this paper, the internal consistency was employed. Internal consistency refers to “the degree to which the items that make up the scale ‘hang together’” (Pallant, 2007, p. 95). The Cronbach's alpha formula was used to estimate the internal consistency of Emotional Intelligence Scale. The results are shown in Table 1. The alpha value of EIS was .821 which indicates a high reliability. The alpha value for components of EIS ranged from .452 to .784.

<table>
<thead>
<tr>
<th>Table 1. Cronbach’s alpha value for EI and components of EIS test</th>
<th>N of items</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>33</td>
<td>.821</td>
</tr>
<tr>
<td>ERS</td>
<td>8</td>
<td>.784</td>
</tr>
<tr>
<td>EE</td>
<td>2</td>
<td>.452</td>
</tr>
<tr>
<td>ERO</td>
<td>5</td>
<td>.623</td>
</tr>
<tr>
<td>AEO</td>
<td>7</td>
<td>.767</td>
</tr>
<tr>
<td>AES</td>
<td>2</td>
<td>.691</td>
</tr>
<tr>
<td>UEPS</td>
<td>4</td>
<td>.735</td>
</tr>
</tbody>
</table>
In the present study, content validity of emotional intelligence test was accounted for. To ensure the content validity of the test, the researcher asked two field experts to confirm the content validity of the test. They strongly confirmed the appropriateness of the test in terms of subject matter and measuring emotional intelligence of the learners.

### 3.2.2 Nelson cloze test

To collect required information about the subjects’ performance on cloze tests, Nelson multiple-choice cloze test was used. It consisted of three passages including 300 words with 33 words deleted from the text. As Brown (2004) states “a reading passage with 150 to 300 words” (p.8) is an appropriate cloze test with sufficient length to measure learners’ language ability.

Before administering the research cloze test, it was piloted with 18 intermediate EFL learners so as to ensure that the test is appropriate for the level of research participants. In addition, topic familiarity of the passages was taken into account so that the topic familiarity of some participants would not affect the test results. Then, the test was given to the participants of the study. The descriptive statistics of Nelson test is presented in Table 2 below.

<table>
<thead>
<tr>
<th>Cloze test</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>83</td>
<td>12.00</td>
<td>29.00</td>
<td>22.04</td>
<td>3.66</td>
</tr>
</tbody>
</table>

### 3.3. Procedures

In this study in order to obtain required information; three questionnaires including Schutte Emotional Intelligence Scale (2000), English language Proficiency Test, and Nelson cloze test were used. The questionnaires were administered in two sessions. In the first session, participants were asked to complete English language Test. It took about 40 minutes. They were asked to code their answer sheet and use the same code in the second session.

In the second session, the cloze test and the emotional intelligence test were administered and the participants were asked to use the same code they had used in the first session. Then Intermediate learners among participants were selected and their scores on cloze test and Emotional intelligence were compared and analyzed.

### 4. Results

Initially, descriptive statistics were computed for all instruments employed in the present study. The results of descriptive statistics for continuous variables, namely, emotional intelligence and cloze test are displayed in Table 3.

<table>
<thead>
<tr>
<th>variables</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloze test</td>
<td>22.04</td>
<td>3.66</td>
<td>82</td>
</tr>
<tr>
<td>EI</td>
<td>1264.3</td>
<td>113.06</td>
<td>82</td>
</tr>
</tbody>
</table>

The main focus of the present study was the examination of the relationship between emotional intelligence (as measured by EIS) and cloze test (as measured by Nelson Cloze Test). In order to determine the strength and the direction of the relationship between these two variables, a Spearman rank order correlation coefficient was used. According to Pallant (2007) “Spearman correlation is appropriate in psychology research where ordinal level ratings (e.g. Likert scale) approximate interval level scaling” (p.123). Table 4 shows the results of the analysis.
As indicated by the table above, the relationship between emotional intelligence (as measured by EIS) and cloze test (as measured by Nelson Cloze Test) did not prove statistically significant \( r = -.02, n = 82, \text{sig} = .86, p < .05 \). By the same token, it is evident from Table 4 that the relationships between EE, ERO, AEO and UEPS did not turn out to be significant at the level of .05 (\( \text{sig} = .687, \text{sig} = .273, \text{sig} = .146, \text{sig} = .770 \), respectively, \( p < .05 \)).

However, a significant positive relationship was found between AES and cloze test \( r = .30, n = 82, \text{sig} = .005, p < .05 \). This correlation coefficient indicates a moderate relationship between AES and cloze test as suggested guideline by Cohen (1988, as cited in Pallant, 2007). Also the two variables accounted for 9% of shared variance \( (.30 \times .30 \times 100 = 9) \).

Also, the relationship between ERS and cloze test, as illustrated in Table 4, was significant \( r = .09, n = 82, \text{sig} = .03, p < .05 \), although the relation was very small as rated by Cohen (1988). With respect to the direction of relationship, a positive relationship existed between the two variables.

To test the third null hypothesis (there is no significant difference between the level of emotional intelligence for male and female participants), an Independent-samples t-test was run. The results of the analyses are reported in Table 5 below. As indicated by the results in the table, the difference between male (\( M = 114.22, \text{SD} = 8.38 \)) and female [(\( M = 132.42, \text{SD} = 137.94 \); \( t (80) = -.683, \text{p} = .497 \)] subjects' EI did not reach statistical significance.

An independent-samples t-test was conducted to explore any significant difference between the mean scores of males and females on components of emotional intelligence. The results of the analysis are presented in Table 6.
Table 6. Gender differences in components of EI

<table>
<thead>
<tr>
<th>Variables</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.87</td>
<td>.35</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>5.58</td>
<td>.02</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-0.02</td>
<td>.99</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.178</td>
<td>.67</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>3.64</td>
<td>.06</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>1.06</td>
<td>.30</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.119</td>
<td>.73</td>
</tr>
</tbody>
</table>

As indicated by the results in the table above, the difference between male and female subjects' mean scores on ERS [(M1 = 25.03, SD1 = 3.22; M2 = 28.09, SD2 = 2.45; t(80) = -.4.75, p = .000] and ERO [(M1 = 13.55, SD1 = 2.45; M2 = 15.36, SD2 = 1.98; t(80) = -.3.581, p = .001)] proved statistically significant. The effect size for gender on ERS (eta square = 0.21) was large according to Cohen's (1988) rating. This means that gender accounted for 21% of the variance for ERS. This was found to be 13% (eta square = .13) for ERO. The male and female subjects' mean scores on the other components of EI did not attain statistical significance.

An independent-samples t-test was employed to investigate any significant difference between the means of two groups (males and females on cloze test). The results revealed a significant difference between the male and female subjects in this regard [(M1 = 23.25, SD1 = 4.34); M2 = 21.46, SD2 = 3.16; t(81) = 2.137, p = .036]. Table 7 presents the t-test results. Gender variable accounted for 5% of the variance for cloze test performance (eta square = .05).

Table 7. T-test for independent samples of cloze test and gender

<table>
<thead>
<tr>
<th>Cloze test</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>1.72</td>
<td>.19</td>
</tr>
</tbody>
</table>
5. Discussion

As the findings of the present study reveal, EFL learners' emotional intelligence has no significant relationship with their performance on cloze test. Consequently, the first null hypothesis stating that there is no significant relationship between EFL learners' emotional intelligence and their performance on cloze test was supported. This finding is in line with findings of previous studies by Shipley, Jackson and Segrest (2009) and Shahmohamadi and Hasanzadeh (2011), who found no significant relationship between emotional intelligence, academic achievement and foreign language learning, respectively. This also confirms findings by Pishghadam and Tabataba'ian (2011) indicating that emotional intelligence as measured by EQ-I, is not associated with cloze test performance. The finding conflicts with Low and Nelson (2004), who found a relationship between EI and test performance. This finding is also in contrast with previous studies (e.g. Pishghadam, 2009; Skuordi and Rahimi, 2010) indicating that EI was positively associated with foreign language learning and acquiring vocabulary knowledge, respectively. This might be related to the instrument used to measure EI.

The results also indicated a significant positive relationship between the two components of EI, namely, AES and ERS, and cloze test performance. Accordingly, the second null hypothesis claiming no significant relationship between components of EI, that is, ERS, AES, AEO, EE, ERO, and UEPS and cloze test performance was rejected. The results of coefficient determination revealed that 9% of variances in cloze test performance can be accounted by AES. This finding is in line with previous studies (Pishghadam, 2009, Pishghadam and Ghonsouli, 2008) indicating that some components of EI (as measured by EQ-i) were correlated with foreign language learning.

As Goleman (1996) declared “students who are emotionally competent recognize and manage their own feelings, recognize and respond appropriately to the feeling of others, tolerate frustration, and are less impulsive and more focused, and concentrate better”. Furthermore, he argued that emotionally intelligent students tend to find rational solutions to problems. Hence, it can be inferred that improving skills related to emotional intelligence among EFL learners can enhance their performance on cloze tests. Since successful completion of cloze tests requires test takers to activate their prior knowledge and make use of their linguistic expectancies, background experience, and some strategic competences, being capable in components of EI might help test takers to fully concentrate and make use of their potential capabilities and activate their prior knowledge to complete the deleted words.

The results also reflected no significant difference between the EI of males and females. However, there was significant difference between two components of EI, namely, ERS and ERO, between males and females. As a result, the third null hypothesis claiming no significant difference between males and females in terms of their EI and its components was rejected. This finding is consistent with previous studies (Goleman, 1998; Gürol, Özerca, & Yalçın, 2010; Hopkins and Bilimoria, 2008; Ishak, Jdaitawi, & Mustafa, 2011) indicating no significant difference between the level of emotional intelligence of males and that of females. While it is in contrast with the findings reported by Mayer, Caruso, and Salovey (1999), and Mandell and Pherwani (2003), demonstrating that the level of emotional intelligence differed in males and females. The findings also signified that there is a significance difference between males' and females' performance on cloze test. Thus, the fourth null hypothesis stating no difference between males and females in terms of their performance on cloze test was rejected. The results revealed that males perform better than females in cloze tests. Results confirm Lin and Wu (2003) view that males perform better than females on cloze test. This finding is not in accordance with Sharafi and Barati (2011)'s finding that there is no difference between the performance of males and females on culturally familiar cloze test.

6. Conclusion and implications

The present study was conducted to investigate the relationship between EI and cloze test performance among intermediate EFL learners. In other words, the present study aimed to explain whether EI as a psychological factor can be accounted for the differences on cloze test performance on the part of EFL learners with the same language
abilities. From the results of the present study, it can be concluded that no correlation exist between EI and cloze test performance. However, the results revealed that some components of EI namely, ERS and AES were significantly associated with EFL learners' performance on cloze test. In other words, it can be concluded that students who are skilled in recognizing their own emotions and regulating their own emotions, are able successfully to cope with negative emotions related to test taking, to manage those emotions, and as a result concentrate better on the test task. According to Bachman (2000) test takers affective schemata might impede or facilitate language use or language test performance, fostering these skills might aid EFL learners to comprehend the whole text and concentrate better on it.

Results concerning the third question of the study (gender differences in EI) indicated that there is no difference between males’ and females’ EI. However, they are different in ERS and ERO. And no significant difference in other components was found. In addition, results relating to the fourth question of the study revealed that males and females differed in terms of cloze test performance. Males outperformed females on cloze test.

The present study has several implications for the teachers and test developers. As the results show cloze test performance is affected by different components of EI as well as gender effect. Therefore, teachers must be cautious when using cloze tests for assessing learners' language knowledge.

Furthermore, teachers must be aware of these differences among their students so that they do not rely on the results of one assessment method instead, they make use of multiple procedures or different test formats for assessing learners' actual knowledge so that students who are skilled in one of these components are neither advantaged nor disadvantaged.

References


