The Relationship between Emotional Intelligence and Reading Comprehension of Iranian EFL Learners

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Abstract: This study investigated the relationship between reading comprehension and emotional intelligence (EI). In addition, the present study focuses on different components of EI and different correlations that they may have with reading comprehension. To do so, PET (2011) as proficiency test was given to 72 upper-intermediate EFL learners majoring in English Translation at Zanjan University. From among them, 50 learners constituted the participants of the study. Then, the researcher administered the Bar-On’s (1995) Emotional Quotient Inventory and a reading comprehension test to the participants to investigate any relationship between EI and reading. These administrations also led to investigating the possible relationship between different components of EI and reading. Pearson correlation coefficient revealed a significant relationship between EI and reading comprehension (r= .68). Similarly, a significant correlation was found between EI subscales and reading comprehension (r=.71). The findings of this study can lead EFL teachers and language planners to think of effective and sensitive instruction methodologies and materials through identifying and understanding students’ significant individual differences. As findings show, emotional intelligence is one of the various aspects of the individual differences whose fostering can assist students in adapting to the environmental demands and pressures of the college environment.

Index Terms: emotional intelligence, reading comprehension, EFL learners

INTRODUCTION

Educators and researchers in the field of second or foreign language learning and teaching have long been concerned with the role that different factors can play in the process of second or foreign language learning. These factors range from language background, affective factors, cultural variables, to personal differences and cognitive factors. According to Bachman (1990), the role of these factors along with the interaction among them constitutes the core of the argument in language proficiency.

One of the influential factors in second or foreign language learning is personal differences. These differences can be in form of affective factors, cognitive factors, learning styles and strategies, and so forth. One issue which makes people different from each other is related to their intelligence preferences (Ehrman, 2003). The traditional notion of intelligence as measured by IQ testing is far too limited, and there is not just one way to be intelligent, but many ways (Gardner, 1983). Emotional intelligence has been proposed as one type of intelligence affecting the learning ability (Akbari & Hosseini, 2008; Fahim & Pishghadam, 2007).

Emotional Intelligence (EI) is about intelligent use of emotions and utilizing the power or information contained in emotion to make effective decisions (Ciarrochi & Mayer, 2007). The Emotional Intelligence (EI) concept argues that Intelligence Quotient (IQ), or conventional intelligence, is too narrow and that there are wider areas of EI that dictate how successful we are. Psychologists and linguists have also become interested in this type of intelligence to figure out the rela-
tionship between EI and English learning skills and strategies (Ciarrochi & Mayer, 2007). In this particular study, the reading comprehension skill is taken into consideration.

Reading is considered a significant life skill, and the lack of reading comprehension influences the learner’s academic advances. Reading comprehension is one of the main purposes of EFL/ESL teaching learning (Anderson & Pearson, 2004). Razi (2010) states that reading comprehension is significant for learners who consider English as a foreign language; thus, there is a little chance to speak English in their daily lives. Reading is an interactive process combining top-down and bottom-up processing; as a result, it is very important for students to use appropriate reading strategies to increase their comprehension (Barnett, 1989). Reading comprehension requires the integration and application of multiple strategies or skills. According to Farrell (2001), students can get a lot of advantages from learning reading strategies. So, these strategies can be taught. Yang (2006) stated that employing reading comprehension strategies help readers get enough skill in comprehension of materials.

In a study done by Abdolrezapour and Tavakoli (2012), it was shown that there was a positive relationship between EI and reading comprehension, and as the subjects were treated in a way to improve their EI, their reading comprehension was improved, too. In another study by Motallebzadeh and Ganjali (2011), the same results were obtained, and subjects’ reading comprehension improved due to improvement in their EI. Considering the importance of emotional intelligence and reading comprehension in foreign language learning, the purpose of the present study is to determine whether EI, as an interpersonal skill and innate potential, has any relationship with reading comprehension or not.

METHOD

Participants
To start the experiment, 72 EFL learners studying English translation at Zanjan University were invited to the study. These students were selected because they had received the basic courses in reading comprehension. The participants’ English language learning background ranged from 1 to 3 years at different English language institutes before they enter the university. After sitting for a Preliminary English Test (PET, 2011), 50 learners (30 females and 20 males) out of the initial candidates who were evaluated as upper-intermediate learners (scores between 37 and 47) were recruited as the final participants of the study. Their ages ranged from 19 to 25. The researcher used convenience (opportunity) sampling in her study to select the initial participants since it seemed difficult to find samples from different universities and she also had access to the Zanjan University.

Instruments
Three instruments were employed in this study; for measuring students’ language proficiency, the PET (2011) was used. The Bar-On Emotional Quotient Inventory (EQ-I) was used for measuring participants’ EI. In addition, the researcher employed a reading comprehension test for measuring participants’ reading comprehension proficiency.

Preliminary English Test (PET)
A proficiency PET (Appendix C) was administered to make sure that the learners were homogenous with respect to their language proficiency. A sample of Preliminary English Test was extracted from Preliminary English Test 5 of Cambridge ESOL Examinations published by Cambridge University Press (PET, 2011) and administered to the participants in order to determine the learners’ overall proficiency level in general. This test included the following four sections: reading, listening, speaking, and writing.

Emotional Intelligence Questionnaire
In order to measure the participants’ emotional intelligence, Bar-On’s EQ-I was administered. Bar-On’s EI test (appendix A) is a self-report questionnaire which was designed by Bar-On in 1980s, to measure socially and emotionally intelligent behavior. The original version of the test included 133 questions, but through later attempts Bar-On reduced its size dramatically so that the modified version comprised only 117 questions. Due to the fact that some questions were found
irrelevant to Iranian context, through discussing the questionnaire items with EI and TEFL experts, 29 items were selected as the questionnaire items for this study. The validity of the questionnaire was confirmed by an EI expert. With respect to its wide use in the Iranian context, this 29-item version of the questionnaire was employed as the principal means of gathering data on EI of the participants of the current study. The researcher read all the items to the students in order to make sure that the items were understandable to the students. Wherever there was a problem, the researcher explained it to the students. It is worth noting that each of the items on the questionnaire is related to one of the 5 composite scales that comprise 15 subscales of emotional intelligence.

These scales and subscales are:

1) Intrapersonal skills (comprising subscales of Self-Regard, Emotional Self-Awareness, Assertiveness, Independence, and Self-Actualization)
2) Interpersonal skills (encompassing subscales of Empathy, Social Responsibility, and Interpersonal Relationship)
3) Stress Management (consisting of subscales of Stress Tolerance and Impulse Control)
4) Adaptability (including subscales of Reality-Testing, Flexibility, and Problem-Solving)
5) General Mood (being composed of subscales of Optimism and Happiness)

All the questions were scored on a five-point Likert-type scale ranging from 'strongly agree' to 'strongly disagree' following the questionnaire designer’s lead. Samouei (2003, as cited in Alavinia, 2011) found that this test did have sufficient reliability and validity indices in Iranian context. Based on her findings, the reported Cronbach’s alpha coefficient for the questionnaire equaled 0.93, and the reliability index gained through odd-even, split-half method was 0.88. In another study, Abdolmanafi et al. (2014) found the reliability (Cronbach’s alpha) index of 0.82 for the EI questionnaire

Reading Comprehension Test

Participants’ reading comprehension ability was evaluated through a reading comprehension test developed by the researcher herself (appendix B). The test consisted of five passages followed by 50 questions in a multiple choice format. The participants were supposed to read the passages and answer the questions following each text in 30 minutes on their answer sheets.

Since the test was devised, rather than adopted, it needed to be checked for reliability, validity, and feasibility. For having an index of reliability, and also checking the feasibility of the test, the test needed to be piloted before being used in the main study. Since the test items were not independent, and there were cloze passages, dictation, and reading sections included in the test, as Bachman (1990) suggested, it was more preferable to measure the reliability for stability rather than internal consistency. To pilot the test, the same test was given two times to 16 upper-intermediate students of a language institute in Zanjan, who were similar to the target group, at a two week interval. The two sets of obtained scores were compared, and a Pearson correlation of 0.82, which is acceptable, was obtained. As for the feasibility, the students did not have any problem with facets of the test rubric, namely, time allocation, instructions, and test organization. The test was feasible. For the purpose of ascertaining validity, the reading comprehension test was checked through panel discussion with TEFL experts. The panel verified the validity of the test.

The Design of the Study

To find answers for research questions of this study quantitative data was collected. The primary aim of this study was to investigate if there is a relationship between EI in general and L2 reading comprehension or not. The second aim of the study was to check for any relationship between EI components and students' reading comprehension. Adopting a correlation single-shot design, the researcher analyzed the data gathered from the questionnaire and reading comprehension test to explain the relationship between EI, EI components, and L2 reading comprehension among Iranian upper-intermediate EFL learners. Therefore, the variables of this study were emotional intelligence, reading comprehension, and different components of emotional intelligence. The reading test consisted of five passages followed by 50 questions in a multiple choice format. The emotional intelligence questionnaire had 30 questions in a Likert scale format ranging from completely false to completely true.
**Procedure**

To begin the research, the participants of this study were chosen from among a population of 72 students from the Zanjan University. After administering the test of language proficiency (PET, 2011), 50 students, 30 females and 20 males, were considered homogenous members based on their scores falling one standard deviation above and below the mean.

In the next session, the Bar-On EI test (1997) was used to assess the participants’ emotional intelligence. The EI questionnaire has been reported to be both valid and reliable (Fahim & Pishghadam, 2007). The validity of the used instrument was confirmed by two Ph.D. experts in TEFL as well. As to the reliability, the instrument was piloted on a sample of 20 students, similar to the target group, from the Zanjan University. This questionnaire had the Cronbach’s Alpha reliability of .84 which shows high reliability index. This was a 29-item self-report inventory, where respondents indicated on a 5-point Likert scale (1 = “completely wrong or not true of me”; 5 = “completely true”) how representative the statements were for them. Standard scores were calculated, in accordance with EI-scores, with a mean score of 100 and a standard deviation of 15. Test scores included a Total EI-score. In addition, the EQ-i also contained some scales that assessed response style and validity: Positive Impression scale, Negative Impression scale, Omission Rate, and Inconsistency Index. In accordance with Bar-On EQ-I technical manual (pp.41-42), EQ-I profiles with an Inconsistency Index score higher than 12, an Omission Rate higher than 6% and scores of 130 or more on the Positive and Negative Impression Scale were considered invalid. Protocols containing a response of “2 "(Seldom true of me) or “1” (Very seldom or Not true of me) on item 30 "I responded openly and honestly to the above sentences”, thus rendering the results invalid, and they were also left out of our analysis.

The participants were given 15 minutes to answer the 30 items, and they were assured that their answers would remain confidential. The participants were also asked to answer the items honestly and not to leave any item blank. The next day, the reading comprehension test was given to the participants in order to test their reading comprehension ability. The validity of the instrument was confirmed by two Ph.D. holders in TEFL. As to the reliability, the instrument was piloted on a sample of 20 students, similar to the target group, from the Zanjan University. The reliability of the test calculated by KR-21 formula was found to be .81 which shows high reliability index. The students had 40 minutes to answer the items in a multiple choice format. The maximum number of this test was fifty, one mark for each question.

**Data Analysis**

Descriptive analysis of the PET used as the homogeneity test is provided in chapter four. EI questionnaires were initially scored and analyzed based on the guidelines provided by Bar-On (1997), and then the total EI scores and the scores of the EI’s five major subscales (intrapersonal, interpersonal, stress management, adaptability, and general mood) were computed. The next step was transforming the raw scores into the standard ones using the direction provided in the instrument’s manual. Then, reading comprehension scores were calculated, and a comparison was drawn by applying the Pearson product-moment correlation (i.e., a measure of association) between two continuous variables—reading comprehension scores and EI scores. Then, the mean scores for each subscale of EI were drawn out, and they were compared with reading comprehension scores to see if there is any correlation between EI subscales and reading comprehension and if it is significant or not. Finally, the data was analyzed: 1) to determine the degree to which EI correlates with reading comprehension; 2) to determine the degree to which the five EI components correlate with reading comprehension. All the information obtained from the questionnaire and reading test was entered into the SPSS (version 17 statistical program).

**RESULTS**

**Result of Language Proficiency Test (PET)**

In order to have homogenized participants in terms of their general English language proficiency, the PET was administered. The descriptive statistics for the PET are displayed in Table 1.

Table 4.1

*The Descriptive Statistics of the PET*
Table 1 above shows the descriptive statistics of the PET test. As it can be seen in table 1 above, the mean and the standard deviation of the population were 45.14 and 6.22, respectively. From among the population, 50 learners were considered homogenous members based on their scores on PET falling one standard deviation above and below the mean and constituted the participants of the study.

**Restatement of the First Research Question and Null Hypothesis**

RQ1: Does emotional intelligence (EI) have any statistically significant relationship with reading comprehension?

Based on above research question, the following null-hypothesis was formulated:

NH1: Emotional intelligence (EI) has not any statistically significant relationship with reading comprehension.

**Result of the First Research Question**

To test the first hypothesis which focuses on the correlation between EI and students’ reading comprehension, the reading comprehension test and the EI questionnaire were given to the participants. The questionnaire, including twenty nine questions, was used to measure participants’ EI. The descriptive statistics for the questionnaire and reading comprehension test are presented in Table 2.

**Table 4.2 Descriptive Statistics for EI and Reading Comprehension**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire</td>
<td>48</td>
<td>4.31</td>
<td>.25028</td>
<td>.06070</td>
</tr>
<tr>
<td>Reading</td>
<td>49</td>
<td>38</td>
<td>.15269</td>
<td>.03703</td>
</tr>
</tbody>
</table>

To test the hypothesis, the correlational analysis of the scores using the Pearson product-moment coefficient was applied. Table 3 presents the correlation between Bar-On’s EI and reading-comprehension scores for the total sample.

**Table 4.3 Correlation between EI and Reading Comprehension**

<table>
<thead>
<tr>
<th>EI</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>50</td>
</tr>
</tbody>
</table>
As Table 4.3 above shows, there was a strong correlation between participants’ EI and their reading comprehension scores which was also statistically significant, $r(50) = .68$, $P < .05$. The Bar-On EI questionnaire (1997) was used to assess emotional intelligence. Therefore, the researcher rejects the null hypothesis that there is no statistically significant relationship between participants’ EI and reading comprehension.

**Restatement of the second research question and null Hypothesis**

**RQ2:** Do different components of emotional intelligence (EI) have any statistically significant relationship with reading comprehension?

**NH2:** Different components of emotional intelligence (EI) have not any statistically significant relationship with reading comprehension.

**Results for the Second Research Question**

The second null hypothesis was concerned with the correlation between EI sub-scales and reading comprehension scores. The five components of the EI questionnaire were taken into account and correlated with the reading comprehension scores separately. The descriptive statistics of the five components is presented in Table 4.

Table 4.4 (Descriptive Statistics for Students’ Answer to Five Components)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra</td>
<td>48</td>
<td>2.9855</td>
<td>.28126</td>
<td>.08480</td>
</tr>
<tr>
<td>Inter</td>
<td>50</td>
<td>2.8691</td>
<td>.15909</td>
<td>.04797</td>
</tr>
<tr>
<td>SM</td>
<td>49</td>
<td>4.02</td>
<td>.31101</td>
<td>.0654</td>
</tr>
<tr>
<td>Adapt</td>
<td>49</td>
<td>2.8</td>
<td>.18457</td>
<td>6.025</td>
</tr>
<tr>
<td>Mood</td>
<td>50</td>
<td>4.61</td>
<td>.2458</td>
<td>.07455</td>
</tr>
</tbody>
</table>

As it can be seen in Table 4.4 above, the mean scores for the intrapersonal, interpersonal, stress management, adaptability, and mood components were 2.98, 2.86, 4.02, 2.8, and 4.61, respectively.

Table 4.5 (The Pearson Correlation between Reading Comprehension, and EI Subscales)

<table>
<thead>
<tr>
<th></th>
<th>Total EI</th>
<th>Intra</th>
<th>Inter</th>
<th>SM</th>
<th>Adapt</th>
<th>Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Pearson correlation</td>
<td>68.2</td>
<td>22.48</td>
<td>18.8</td>
<td>56.2</td>
<td>40.40</td>
</tr>
<tr>
<td>Sig(two tailed)</td>
<td>0.049</td>
<td>.599</td>
<td>.1576</td>
<td>.0598</td>
<td>.1886</td>
<td>.036</td>
</tr>
</tbody>
</table>

*Note:* Intra. = Intrapersonal, Inter. = Interpersonal, SM = Stress Management, Adapt. = Adaptability

The overall average for the EI total scores ($r = .68$) was rated high when correlated with reading comprehension. That is, this result shows a high relationship between the two variables. However, reading comprehension and interpersonal relationships ($r = .22$) had low correlation, and intrapersonal abilities had yet a slightly lower correlation with reading comprehension ($r = .18$).
The same result was found between stress management and reading-comprehension scores ($r = .56$). Adaptability skills were found to be weakly correlated with reading comprehension ($r = .33$), and general mood abilities showed the highest correlation ($r = .71$).

As the results show, general mood—as a subscale of EI—is significantly correlated with reading comprehension while the other subscales are not. Pearson correlation coefficient value related to the relationship between EI and reading comprehension equaled 0.68 which was significant (Sig. 2-tailed: 0.00<0.05). This means that there is a significant relationship between EI and reading comprehension. In much the same way, the Pearson Correlation between Reading Comprehension and EI Subscales indicated there is a significant correlation between EI subscales and reading comprehension ($r= .71$).

As the results have indicated, there is a significant correlation between EI subscales and reading comprehension ($r= .71$) which implies the rejection of the second null hypothesis.

**Discussion**

The researcher aimed at investigating the possible relationship between the emotional intelligence (EI) and the reading comprehension. Moreover, she was eager to find the relationship between the components of the emotional intelligence (EI) and the reading comprehension. Considering the analysis of the results presented in chapter 4, it is now possible to consider the research questions in light of empirical evidence and compare and contrast the present study with the similar ones to make the results more meaningful.

Before judging the findings, it is necessary to state that these findings are consistent with the theoretical position of Jensen (1998) that intelligence bears no causal relationship to achievement, not the other way around. That is, from a theoretical perspective, the construct of intelligence is not expected to precede and influence the development of academic achievement because “school learning itself is demanding” (Jensen, 1998, p.279). The study’s findings suggest that educators should be aware of the impact intelligence has on foreign language learning. Student intelligence needs to be developed in order to facilitate reading comprehension. Teachers can improve students’ intelligence by using the ideas of Buschkuehl and Jaeggi (2010), who believe that “intelligence can be improved by training on working memory and using some executive functions” (p. 267). The result of the first research question is in line with the findings of Bryant (2007) in which a strong relationship between emotional intelligence and reading comprehension in high-school students with learning disabilities was found. The findings of Abdolrezapour and Tavakolli (2012) and Hamidi and Khatib (2016) are in line with the result of this study. Results of their study indicated that the participants with higher EI showed greater achievement in reading comprehension. Ghabanchi and Rastegar’s (2014) findings support the findings of the present research by finding high relationship between reading comprehension and emotional intelligence.

**CONCLUSION**

Gardner (1983) assert that language is a means of communication which transfers the speakers' or writers' ideas through different channels, including words, pictures, and so forth to the audience. Communication includes linguistic factors, intrapersonal mechanisms, and interpersonal skills. This idea inspired the researcher to conduct the study considering the relationship between emotional intelligence and reading comprehension.

The findings of this study revealed that there was a significant relationship between emotional intelligence components and Iranian EFL learners' academic performance on reading. Emotional Intelligence is the capacity to perceive emotion to enhance thinking. To achieve better performance in an academic setting, students should foster a good relationship with their peers and to cope with stressful and threatening classroom situations. Therefore, it seems to be natural that emotional intelligence can play a pivotal role in academic achievement of university students. It was concluded that Emotional Intelligence has a significant relationship with learning receptive skills such as reading comprehension, and individuals with higher EI are usually successful. The conclusion was based on Likert scale which was analyzed by SPSS.

Although reading comprehension proficiency was relatively associated with several dimensions of EI (stress man-
agement, general mood, adaptability, interpersonal, and intrapersonal, the correlation was significant only for general mood. The total EI and some of its subscales were found to be strong predictors of reading comprehension ($r = .68$). It is no wonder, though, that these subscales have a correlation with comprehension proficiency because learning a language is a communicative task in nature, and the ability to communicate and learn a language, knowing emotions, and being able to control them play a significant role. In essence, the main outcome of this research was that the relationship between EI and reading comprehension proficiency is stronger than the relationship between the components of EI and reading-comprehension proficiency. Although the amount of correlation is significant here, it cannot be generalized to all EFL learners because gender difference and other proficiency levels were not considered in this research.

Considering the psychological factors related to English language classes in EFL contexts, the existence of a relationship between second language reading and emotional intelligence was expected as claimed by Gardner (1983). Krashen (1982) believes that reading a second language appears to be difficult, challenging, and stressful for the learners, especially for adults who have to read another language other than their mother tongue, and it may lead to making lots of mistakes and facing problems. Taking the social interpersonal interactions involved in this process into account can be useful in improving the learners’ language abilities in the sense that learners will have more opportunities to negotiate and interact with one another.

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