Relationship between Intercultural Competence and Reading Skills among EAP Students
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ABSTRACT
This article reports a study investigating the existence of any statistically significant correlation between intercultural competence and reading comprehension ability among EAP university students. The participants of the study were about 120 participants (male = 50, female = 70, mean age = 26.85). In so doing, first of all, the Persian translation of intercultural sensitivity questionnaire was used. Moreover, to provide evidence for the dependent variable of this study, that is, reading comprehension, specialized readings (Academic Medical standardized readings) which were related to the aspects of medical texts were given to the students. Based on Pearson product moment correlation, it was found that there was a strong positive correlation between Intercultural competence and reading comprehension ability, indicating that individual's performance on Academic readings comprehension got better with respect to higher Intercultural competence. It was also found that there was a significant positive correlation between variable-specific IC and performance on Academic reading comprehension.

Keywords
Intercultural competence, Reading comprehension, EAP.

Introduction
Intercultural competence
Intercultural competence is a fundamental concept in language learning studies. Benet (2011) defines intercultural competence as a set of cognitive, affective, and behavioral skills and specifications that supports influential and proper interaction in different cultural contexts. Intercultural competence makes possible dominant perspective for deeply connecting together initial concepts for interacting across both international and domestic differences. According to this view, philosopher Maxine Green (1988, as cited in Benet, 2011) recommends to recognize our status in “a world lived in common with others.”

According to Neuliep (2006) intercultural competence enables an individual to predict beliefs, attitudes, values and behavior of others and interact with people from other cultures more effectively. Applying such perspective, intercultural competence consists of four dimensions: knowledge component (how much one knows about the culture of others), affective (one’s motivation to interact with others from different cultures), psychomotor (the actual enactment of the knowledge and affective components), and including a fourth contextual component (situational features in which intercultural communication takes place).

Reading Comprehension
Reading which is one of the most complex skill that mankind has developed, has been studied from various perspectives by different scholars. Reading specialists have given much thought to the nature of reading and have evolved in literature some fairly comprehensive statements. The reading specialists, orientation in general is a psychological one, or derived from the psychological discipline through school of education. It is centered on the individual who reads. The linguist’s orientation is toward the language which is being read rather than toward the individual who reads. The sociologist is interested in the effect of reading upon a culture, and so as another vantage point from which to make his analysis of reading (Staiger, 1956).

Understanding the meaning of a text or comprehension is the most important component of reading skill; in fact reading and comprehension are integrated and reading without comprehension is not reading at all but, as Pressey, et.al., (1959) refer, verbalism. So the basic task in reading is to discover the meaning intended by the author that is a good comprehension is the end result of reading. Harris (1945) believed that in reading a reader must be able to recognize the printed symbols, to move his eyes effectively across the page, to read the reasonable speed, and to comprehend what he reads.

Comprehension may be said to occur when the internal representations are matched (Trabasso, 1972). Wardhaugh (1969) summing up his views in a definition of reading remarks that when a person reads for comprehending a text, he is attempting to discover the meaning of what he is reading by using the visual clues of spelling, his knowledge of probabilities of occurrence his textual pragmatic knowledge, and his syntactic and semantic competence to give a meaningful interpretation to the text. Reading is not a passive process in which the reader first recognizes what is on the page and then interprets it, a process in which a stage of decoding precedes a stage of involvement in reading. Reading is an active process, in which the reader must make an active contribution by drawing upon and using concurrently various abilities that he has acquired.

Reading comprehension according to Bond, et.l. (1984), has also been defined as the recognition of printed or symbols which serve as stimuli to the recall of meaning built up through the reader’s past experience.

Intercultural Competence and Reading Comprehension Ability
There are many factors that have potential to bias the reading comprehension ability and there is a high correlation between them such as: motivation, background knowledge, language proficiency, level of student’s IQ, knowledge of
vocabulary. These variables show their importance on reading comprehension ability. However, the role of intercultural competence on reading comprehension ability cannot be ignored but there are very few studies, especially in Iran, which have dealt with the correlation between intercultural competence and reading comprehension ability. It is believed that intercultural competence is necessary for reading comprehension ability, and student’s knowledge of the culture in target language make their motivation in promoting their position and also help them to comprehend better.

In a research on Target (l2) culture and second language reading (l2) Barnitz (1986) proposed that comprehension is reviewed to support the claim that second language reading is an interactive process, involving the interrelationship of cultural schemata and discourse structure. Studies on content schemata include investigations of It is a well-documented fact that native language reading comprehension involves the role of knowledge of the world and knowledge of native text structure (Langer & Smith-Burke, 1982; Spiro, Bruce, & Brewer, 1980). It is a well-documented fact that native language reading comprehension involves the role of knowledge of the world and knowledge of native text structure (Langer & Smith-Burke, 1982; Spiro, Bruce, & Brewer, 1980).

Reading is a complex interactive, hypothesis-generating psycholinguistic process which is tied intimately to the reader’s language proficiency. While there are basic similarities in the fluent reading process in various languages (Goodman &Goodman, 1978; Hudelson, 1981), it is natural to expect that nonnative language proficiency or language differences may influence reading and learning to read a second language. Likewise, specific linguistic and cultural differences can affect learning to read, especially because differences exist in orthographies (Barnitz, 1982; Kavanagh &Venenzky, 1980; Taylor & Taylor, 1983), morphology (Greene, 1981), syntax (Cowan, 1976), and discourse (Carrell, 1984b; Kaplan, 1983).

Elster (2003) maintained that the interpretation and performance on religious reading practices are culturally and historically defined. This study describes and analyzes religious reading practices as a means of investigating socio-culturally situated literacies and intercultural communication. Understanding how we read religious texts will be part of understanding how we live in the world of the 21st century. The growing visibility of Christian and Muslim ideologies and their relationship to political agendas, including the use of Biblical and Koranic texts in speeches by international leaders, highlights the importance of understanding religious reading practices.

Ramirez (2012) categorizes cultural background knowledge used by Latino students as they read history texts. The analysis revealed that participants made a large amount of connections attributed to their cultural experiential knowledge. The study also suggests that reading ability does not limit the amount and quality of connections students make to their culture.

English for Academic Purpose (EAP)

Benesche (1999) suggest that EAP course is formed on the cognitive and linguistic demands of the target situation and teaching specific purposes. She maintains that EAP provides informed and focused instruction based on need analysis. In her view, the goal of EAP is to offer the most appropriate tasks and genres for academic courses so they can be taught more effectively to EAP students. Benesche explains that critical EAP considers students as active participants, engages them in activities in class and encourages them to change those activities according to new conditions they face in future. Critical EAP encourages students to actively take part in the workplace, life and other situations.

Hamp-Lyons (2001, p.126) defines EAP as an educational approach with different belief about TESOL compared to General English. EAP begins with the learner and the situation, whereas General English begins with the language.

Hyland (2006) describes EAP as an approach based on theory and research which involves syllabus design, need analysis, and materials developments.

According to Hamp-Lyons, many EAP courses focus more on reading and writing, while general English Courses focus on speaking and listening. General English courses teach learners conversational and social genres of the language, while EAP courses tend to teach formal, academic genres.

Reading for Academic purposes (EAP)

Jordan (1997) describes reading for academic purposes as a multi-dimensional subject. He maintains that in reading for academic purposes, students deal with subject content of the text and its language, which both involve comprehension.

Krishner, Wexler and Spector-Cohen (1992) suggest that in a university setting where the medium of instruction and communication is not English and students are required to read content-course bibliographies in English, the goal of the foreign language reading comprehension course is to provide students with the skills and strategies to meet this need. In such a setting, the English reading course is often compulsory and courses are presented in various content area and various proficiency levels. Pointing out the fact that readers engage in reading to gain information. Hudson (1991) suggests that purpose of reading is considered as a central concern of ESP, and purpose of the reading does not reside in a text, but reside in the interaction between language learners relationship and the learning task.

Intercultural competence in EAP courses

Uso-Juan (2006) asserts that learner’s background knowledge of L2 culture and English language proficiency contribute to EAP reading comprehension. The higher the participant’s background knowledge of host culture or English language proficiency, the better their EAP reading comprehension will be. Al-Isa (2006) suggests material developer should be aware of the schema theory for recommending materials for reading instruction. According to reading researchers, unfamiliar content of a text, whether cultural or topic-related, has an effect on reading comprehension. Then it seems this fact must be considered as a criterion in the selection in reading material and also in the evaluation of reading comprehension. Conceptualizing the content is not a context-free process. When taking into account information about the students, goals, and objectives, teachers need to determine which aspects of ESP learning will be included, emphasized, integrated, and used as a core of the course to address students’ needs and expectations. There may be different ways of conceptualizing the content. Teachers can focus on developing "basic skills", communicative competence, intercultural competence, vocabulary awareness, etc. For example, an English for Academic Purposes (EAP) course for Iranian high school students who are going to participate in a foreign exchange program can be conceptualized around L2 culture.

Method
Participants

The participants comprising the population of this study were 120 graduate Microbiology students of Islamic Azad University (70 female and 50 male) by convenience sampling. These students considered as EAP learner( non _English major)
The age range was 22 to 30 years old. They passed General English Course and Specialized Medical Text’s Course. Based on the box-and-whisker plots of IC questionnaire and Reading comprehension scores just eight participants were dropped out as outliers. Consequently, 112 students out of 120 were considered for the final sample and eight outliers were excluded.

**Instruments**

**Our measurement contained two different sections**

In the first section, the intercultural sensitivity questionnaire which is related to the aspects of second or foreign language society was given to students. This questionnaire included 24 questions in 5 factors for majoring intercultural sensitivity, they were ranging from strongly agree to strongly disagree and titles of which were introducing oneself, verbal pattern, non-verbal communication, time and space pattern and personal relations.

In this study, the researchers considered every one of these factors as a variable-specific IC, and all the five variable -specific kinds of intercultural sensitivity together are considered as the overall intercultural sensitivity. This questionnaire was designed by United States Association by Chen and Starosta and translated by Amir-Bashiri (2013). It helped in acquiring important information on participant’s attitudes toward target culture and the degree of cultural awareness of subjects. The persian translation of Iranian version of the intercultural sensitivity questionnaire, includs5 factors. These five factors comprise the items: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness. For making sure about the reliability of the questionnaire, it was pilot-tested and the rate of Cronbach’s alpha was calculated. After, they filled in the questionnaire, they had a short break.

**Table 1. Cronbach’s alpha reliability of IC questionnaire in current survey**

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Number of Questions</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercultural competence sensitivity</td>
<td>24</td>
<td>879</td>
</tr>
<tr>
<td>Interaction Engagement</td>
<td>7</td>
<td>595</td>
</tr>
<tr>
<td>Respect for Cultural Differences</td>
<td>6</td>
<td>701</td>
</tr>
<tr>
<td>Interaction Confidence</td>
<td>5</td>
<td>764</td>
</tr>
<tr>
<td>Interaction Enjoyment</td>
<td>3</td>
<td>613</td>
</tr>
<tr>
<td>Interaction Attentiveness</td>
<td>3</td>
<td>502</td>
</tr>
</tbody>
</table>

In The second section, Specialized readings (Academic Medical standardized readings) which are related to the aspects of medical text were given to students, these 2 passages (readings) consist of 4 multiple choice questions can be seen in, and 1 passage consists of 5 multiple choice questions, with a total numbers of 13. In order to measuring the readabilities of readings and making sure about the difficulty level of these contents, the readabilities of them were calculated through the use of Fog Index Formula. There were totally three readings passages with different readability which indicates as follows. And also, for making sure about the reliability of these readings was calculated thorough K-R21 formula.

**Procedure**

A total number of 120 Azad university students who have passed General English Course and Specialized Medical Text’s Course took part in this study. Participants were of both sexes and were selected from convenience sampling, from Faculty of Microbiology, Azad University on different days. It was mentioned that, 120 students answered the questions but responses of 112 students were reliable to examine (male = 47, female = 65, mean age = 26.85).

In the first section, the students were given a brief description about the intercultural sensitivity questionnaire. Then the questionnaire was distributed among the participants with a deadline of 30 minutes. This questionnaire was compounded from two separated part, the first part propounded the demographic questions which related to respondent’s qualifications: age, sex, and the second part, is intercultural sensitivity questionnaire. In the second section, academic readings were distributed among them with a deadline of 30 minutes. Specialized readings (Academic Medical standardized readings) which were related to the aspects of medical text were given to students.

**Results**

As the aim of the study was to investigate the relationship between intercultural competence and reading comprehension among EAP students of university.

The first result indicated that there was strong significant correlation between IC and reading comprehension. The second result related to the survey of variable-specific IC which demonstrated one variable of IC including interaction attentiveness was not in relation with reading comprehension. This indicated that another two variables of IC including interaction enjoyment and respect for cultural differences, were in a very low correlation with reading comprehension. And also indicated that other two variables of IC including interaction engagement, interaction confidence were in strong significant correlation with reading comprehension. The last result indicated that gender did not affect the relationship between intercultural competence and reading comprehension ability.

**Table 2. The result of testing hypotheses**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Pearson Correlation Coefficient</th>
<th>Spearman ‘rho Correlation Coefficient</th>
<th>Sig</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship between IC and Reading Comprehension</td>
<td>0.52</td>
<td><code>&lt;0.05</code></td>
<td>Negation of HQ</td>
<td></td>
</tr>
<tr>
<td>Relationship between Respect for Cultural Differences and Reading Comprehension</td>
<td>0.247</td>
<td><code>&lt;0.05</code></td>
<td>Negation of HQ</td>
<td></td>
</tr>
<tr>
<td>Relationship between Interaction Confidence and Reading Comprehension</td>
<td>0.379</td>
<td><code>&lt;0.05</code></td>
<td>Negation of HQ</td>
<td></td>
</tr>
<tr>
<td>Relationship between Interaction Engagement and Reading Comprehension</td>
<td><code>_</code></td>
<td>0.359</td>
<td><code>&lt;0.05</code></td>
<td>Negation of HQ</td>
</tr>
<tr>
<td>Relationship between Interaction Enjoyment and Reading Comprehension</td>
<td><code>_</code></td>
<td>0.188</td>
<td><code>&lt;0.05</code></td>
<td>Negation of HQ</td>
</tr>
</tbody>
</table>
**Table:**

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Interaction</th>
<th>Attentiveness and</th>
<th>Reading Comprehension</th>
<th>0.125</th>
<th>0.188</th>
<th>Confirmation</th>
<th>of HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observational</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Table:**

<table>
<thead>
<tr>
<th>Relationship</th>
<th>intercultural competence and reading comprehension (in male)</th>
<th>0.414</th>
<th>-</th>
<th>&lt;0.05</th>
<th>Negation of HQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship</td>
<td>intercultural competence and reading comprehension (in female)</td>
<td>0.344</td>
<td>-</td>
<td>&lt;0.05</td>
<td>Negation of HQ</td>
</tr>
<tr>
<td>Effect of the gender on the relationship between intercultural competence and reading comprehension</td>
<td>0.13</td>
<td>-</td>
<td>0.115</td>
<td>Confirmation of HQ</td>
<td></td>
</tr>
</tbody>
</table>

**Discussion**

The first result of this study indicated that there was a strong high correlation between IC and reading comprehension. Therefore, it could be argued that Microbiology student’s intercultural competence (IC) is closely associated with their reading comprehension ability. This finding confirmed an argument made much earlier in L2 culture and second language reading comprehension by Barnitz (1986). He proposed that comprehension is reviewed to support the claim that second language reading is an interactive process, involving the interrelationship of cultural schemata and discourse structure. Findings of this study also approved the argument made by Ramirez (2012) in the field of cultural background knowledge used in history texts by Latino students. He categorizes cultural background knowledge used by Latino students as they read history texts. The analysis revealed that participants made a large amount of connections attributed to their cultural experiential knowledge. The study also suggests that reading ability does not limit the amount and quality of connections students make to their culture.

The relationship between variable-specific IC and reading comprehension ability was also computed, which resulted in various findings.

About the lack correlation between respect for cultural differences and reading comprehension ability, it seems that the participants of the study respected different cultures but not as well as their own culture, they gave the prior value and respect to their own society and culture, but from different points of view. According to Hammer and Nishida, Wiseman (1996) the situation of the context interaction affects the degree of respect in intercultural communication competence. According to Hawes and Kealey (1981), behavioral effectiveness is the core criterion of intercultural communication and identified seven skills that account for interculturally competent behavior, including display of respect, interaction posture, orientation to knowledge, empathy, self-oriented role behavior, interaction management, and tolerance of ambiguity.

Regarding the significant correlation between interaction confidence and reading comprehension, it seems that participants in the study have sufficient knowledge about culturally different contexts and as a result of that they always feel confident when interacting with people from different cultures. However, today IC is more than just being able to speak the native language of the receiver in the communication process. It is, rather, to know as much as possible about the receiver’s culture in order to increase the efficiency of international communication. This requires knowing the background of the people, where they are grown up, what they care for, how they react and so on. In brief, to cope with people from different cultures requires more than a language.

Concerning the significant correlation between interaction engagement and reading comprehension, it seems that the participants in the study were eager to strike an interaction with people from the host community and, by implication, have positive attitudes toward the target culture. Cook and Selltiz (1995) recognized the necessity for a common ground upon which contact was defined, and sought to understand the characteristics of the contact that produced positive attitude change.

With regard to lack of correlation between interaction enjoyment and reading comprehension, it seems that the participants in the study did not enjoy interacting with people from a culturally different community as well as their own community. It is hypothesized that the more interaction enjoyment students have with host cultures, the more they will learn about the culture and its people, as well as develop the ability to interact with culturally different people. So to create a situation that gives eagerness to members of interaction, the most important issue is to consider them as having equal status in cooperative conditions rather than competitive conditions.

About the lack of significant correlation between IC and interaction attentiveness, it seems that the participants in the study have much less attention toward the target culture. This indicates that there is no significant correlation between these two variables. The lack of correlation between these variables may be attributed to some sociological factors or personal biases arising from ambiguity intolerance. As regards gender, it did not affect the correlation between the IC and reading comprehension ability in EAP among Iranian university students. About the relationship between female/male’s IC and reading comprehension ability, it seems that the differentiation between genders did not affect the relationship between IC and reading comprehension ability. The lack of differences between the sig numbers of relationship between female/male’s IC and reading comprehension in this study showed that the relationship between female’s IC and reading comprehension ability (R=0.414) is slightly higher than the relationship between male’s IC and reading comprehension ability (R=0.311). Intercultural competence of specialists includes acknowledging the diversity of men and women. This means not only taking the differences and variables between genders into account, but also appreciating them within the gender groups. In addition, in an intercultural context gender varies even further, and carries different but also common images and ideas. This diversity between and within the gender groups and the cultural contexts must be taken very seriously, and must be considered in the implementation to avoid stereotyping and intensification of the differences (dramatization). When discussing gender or other differences, one ought to keep in mind that stereotypes are neither assigned (men are like this, women are like that), nor discharged into a seeming neutrality (women aren’t really very different from men).
Conclusion

In summary, this study sought to probe whether there was any significant correlation between overall and variable-specific IC and reading comprehension ability. In this study according to Chen and Starosta’s model all aspects of IC including cognitive, affective and behavioral dimensions were considered. The results showed that there was a significant direct correlation between learner’s IC and their reading comprehension ability. The relationship between variable-specific IC and reading comprehension ability was computed.

In the study there was a strong significant correlation between interaction confidence and reading comprehension, and also in computing the relationship between interaction engagement and reading comprehension the same result was achieved, on the other hand in computing the relationship between respect for cultural differences and reading comprehension ability the lack significant correlation was achieved, also the same result was observed about the relationship between interaction enjoyment and reading comprehension.

And the last correlation between these variables showed that there was not relationship between interaction attentiveness and reading comprehension. This result indicated that, the lack correlation between these variables may be attributed to some sociological factors or personal biases arises from ambiguity intolerance.

Finally, in computing the gender affect the relationship between IC and reading comprehension, it was demonstrated that the gender differentiation did not effect on the relationship between IC and reading comprehension. It should be concerned that, when discussing gender or other differences, one ought to keep in mind that stereotypes are neither assigned (men are like this, women are like that), nor discharged into a seeming neutrality (women aren't really very different from men).