THE RELATIONSHIP AMONG LEVEL OF AMBIGUITY TOLERANCE AND CLOZE TEST PERFORMANCE OF IRANIAN EFL LEARNERS ACROSS GENDER

Nazila Sa’dabadi

Department of English, Science and Research Branch, Islamic Azad University, West Azarbaijan, Iran

ABSTRACT

In the second language classroom, there are many learner variables that instructors should be aware of because of the impact they will have on the success of their students. Among them, the influential variable is tolerance of ambiguity. While ambiguity may be present in learning any subject, there is a remarkable amount of ambiguity when it comes to acquiring a second/foreign language. Thus, this study investigated the relationship between ambiguity tolerance and cloze test performance across gender among intermediate EFL learners. By means of an institutionalized placement test (i.e., Iran Language Institute Placement test), a total of 134 Iranian EFL learners of English, that is, 67 females and 67 males were selected to take part in the study. The participants were within the age range of 15-18 having at least 3 years experience of learning English at the institute. Participants were asked to fill out Ely’s Second Language Tolerance of Ambiguity Questionnaire (SLTAS) translated into Farsi for the ease of comprehension. Having filled out the questionnaire, a cloze test was selected from TOEFL test and administered to them. A series of one-way ANOVA and post hoc comparisons using the Tukey HSD test were used to analyze the obtained data. Results indicated the superiority of male learners over female ones in being more ambiguity tolerant as well as cloze test performance. Moreover, high ambiguity tolerant learners in both groups outperformed in cloze test compared to the other two groups, that is, average and low ambiguity tolerant learners. Teachers in all educational settings including language institutes, and schools will profit from the results which will provide insights on the advantages of improving learners’ level of ambiguity across gender in EFL settings.

KEYWORDS: Ambiguity Tolerance, Cloze Test, Gender

INTRODUCTION

There are many learner variables that instructors should take into account in second language classes because of the effect they have on the success of their students. Thus, these learner variables can help determine the techniques and methods that instructors can apply in the class. Among them, one of the most important variables is tolerance of ambiguity. Ambiguity tolerance (AT) indicates people's personality which can affect many aspects of their life, learning and proficiency of learners (Ely, 1989). Therefore, tolerance of ambiguity plays an important role in various aspects of language performance and learners’ beliefs about learning (Erten & Topkaya, 2009; Ashouri & Fotovatnia, 2010). Although ambiguity is present in learning any subject, it is
more evident when it comes to acquiring a second/foreign language; for some learners this is what makes second language learning exciting, however, for others this same amount of ambiguity makes learning extremely frustrating and unpleasant.

Naiman, Frohlich, Stern, and Todesco (1978) define ambiguous situation by "novelty, complexity, or insolubility, and further characterizes responses to such threatening situations by expressions of dislike, depression, attending to avoiding the situation, or by destructive behavior" (p.70). Moreover, Ely (1989) states that ambiguity in language learning is regarded as uncertainty experienced by language learners whenever they feel they have not pronounced a sound accurately, or understood a grammatical point or understood the exact meaning of a word. Therefore, AT can create a stressful situation for learners and affect language learning, risk taking, and usage of the appropriate strategies negatively when it is not tolerated well enough. Thus, the learners' attempt towards being a good language learner might be blocked when ambiguity is not tolerated.

In recent years, many studies have investigated the relationship between ambiguity tolerance and different language skills (writing, reading, speaking, listening, grammar, vocabulary, and cloze test). Results of some studies indicated a significant correlation between AT level and EFL learners' general English scores (Chapelle, 1983; Khajeh 2002; Mori, 1999; Yea-Fen, 1995).

To clarify the AT influence on EFL achievement in SLA contexts, some studies tried to explore the relationship between AT and learners’ success in English skills. El-Koumy (2000) examined the differences in English reading comprehension grades among 150 high, middle, and low ambiguity tolerant EFL learners and found that the moderate AT group outperformed significantly higher than the low and high group.

Some other studies on the relationship between EFL learners' level of AT and their language learning strategy use, were conducted in past two decades. Results of these studies showed a positive correlation between AT and language learning strategy use of EFL learners (Jun-yong, 1998; Khajeh, 2002; Yea-Fen, 1995). Khajeh (2002) conducted a study on the relationship between AT, language proficiency, and language learning strategies. She stated that there was a positive correlation between AT and both proficiency level and frequency of strategy use. Participants were 120 male and female sophomores studying English with an age range of 18-25.

Some of studies were conducted on the gender role in discourse (Hawes & Thomas, 1995; Lees, 1997; Weedon, 1987), and gender bias in oral performance (Halpern, 1986; Hyde, 1990; Hyde & Linn, 1988; Maccoby & Jacklin, 1974). Among the existing studies, Maubach and Morgan (2001) investigated the effect of gender on language learning style of 72 students of French and German (57 girls, 15 boys). The findings revealed that males had higher level of ambiguity tolerance comparing to their females. In contrast, Kissau (2006), conducting a study on 490 French language learners (254 girls, 236 boys), reported no gender difference in tolerance of ambiguity.
Erten and Topkaya (2009) in their study on 106 female, and 67 males reported a significant difference between males and females in their tolerance of ambiguity with females exceeding males. Moreover, a study conducted by Lin and Wu (2003) indicated that males outperformed females in the grammar, vocabulary, and cloze test sections in TOEFL test, however, listening comprehension obviously favored females.

**Ambiguity Tolerance and Cloze Test Performance**

Since studies regarding ambiguity tolerance usually focus on general language learning achievement and few studies have investigated the relationship between ambiguity tolerance and a cloze test performance which was popular in the 1970s and 1980s. However, they still receive attention in many examinations throughout the world. The popularity of cloze tests has faced some controversy and many researchers (Jonz, 1976; Oller, 1972; Brown, 1983) question the validity and the reliability of such tests while many others (e.g. Oller, 1979; Bachman, 1985) praise cloze tests. A cloze test asks the participants to fill in the words that have been deleted from a reading selection (Oller, 1979). Cloze tests are used in various types of tests (e.g., achievement, diagnostic, placement, etc.) (Heaton, 1990). In Iran, cloze tests are used in high school tests and the National University Entrance Exam (NUEE). Thus, they play a very important role in the educational life of Iranian test takers. Moreover, gender differences in cloze test performance have been examined only to a limited degree and little differential performance by gender has been found.

In sum, the importance and influence of ambiguity tolerance in second language acquisition should be realized in every English class in Iran, and important measures should be taken to direct this cognitive style as efficiently as possible. Thus, this study will be an attempt to examine whether there would be any statistically significant relationship among the level of ambiguity tolerance (AT) of the Iranian EFL learners, their gender, and their performance on the cloze test.

**RESEARCH QUESTION**

Is there a relationship between level of ambiguity tolerance and cloze test performance across gender?

The following null hypothesis was postulated:

There is no relationship between level of ambiguity tolerance and cloze test performance across gender.

**METHODOLOGY**

**Participants**

A total of 134 Iranian EFL learners of English, that is, 67 females and 67 males were considered to take part in the study in order to yield more significant and at the same time trustable results. By means of an institutionalized placement test (i.e., Iran Language Institute Placement test), 2 intermediate intact female classes and 2 intact male classes were selected. The study was conducted in one of the famous institutes, namely, Iran Language Institute in Iran.
participants were within the age range of 15-18 having at least 3 years experience of learning English at the institute. The classes were held twice a week.

**Instruments**

Embracing any study entails utilization of a number of instruments which help it to smoothly run toward achieving its intended goals. With this in mind and to put into practice the theoretical aspects of the current study, the following instruments were utilized to pave the way for data collection procedures:

A highly valid and reliable proficiency test, $r = .90$, institutionalized by Iran language institute was utilized. It included questions on grammar, vocabulary followed by an interview. It served the purpose of homogenizing the participants in terms of language proficiency at the outset of the study.

A cloze test including 25 items with the reliability of $.87$.

**Procedure**

To initiate the study, the researcher made sure that all the participants were homogeneous by ILI placement test. During the study, 4 intact classes, 2 male and 2 female, were selected in intermediate level. They were asked to fill out a questionnaire which was translated into Farsi for the ease of comprehension.

The researchers distributed the translated Persian version of the SLTAS questionnaires to the participants and explained the instructions to them in Persian. The researchers also clearly explained the purpose of the research to the students, and informed them that there were no correct answers. It was also clarified that the responses were confidential, and that no names would be used in the research, and that scores would not be given to the institute. It had 12 items with a 5-point Likert scale from 'Strongly Disagree' to 'Strongly Agree'. The items available were meant to measure students’ agreement level with statements depicting intolerance of ambiguity in given situations.

Having filled out the questionnaire, a cloze test was selected from TOEFL test and administered to them and as before, the instructions were clearly presented and students were informed that their names would remain anonymous and scores would not be presented to any one. It should be noted that answers which were not exact but were grammatically accurate were accepted as correct answers and were given a one score. Those answers which were left blank or were answered incorrectly were assumed incorrect and were given a zero score. The raw scores were collected and submitted for quantitative analysis.

**Data Analysis**
The present intact group design employed a quantitative research method for data analysis. In this regard, the SPSS 16 (Statistical Package for Social Sciences) software was used to analyze the data quantitatively. Therefore, a series of one-way ANOVAs were run:

To investigate the relationship between the level of ambiguity tolerance and cloze test performance among females,

To investigate the relationship between the level of ambiguity tolerance and cloze test performance among males.

Besides, post hoc comparisons using the Tukey HSD test were conducted find out where exactly the difference among the level of ambiguity tolerance (high, average, and low ambiguity tolerance) regarding the performance on cloze test existed.

RESULTS AND DISCUSSION
In order to analyze the obtained data, the researchers used a series of one-way ANOVA statistics. Table 1 shows descriptive statistics for the relationship between the level of ambiguity tolerance and cloze test performance among females.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Lower Bound</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>34</td>
<td>91.6324</td>
<td>2.24050</td>
<td>.38424</td>
<td>90.8506</td>
<td>92.4141</td>
<td>87.00</td>
<td>96.00</td>
</tr>
<tr>
<td>average</td>
<td>8</td>
<td>83.5000</td>
<td>1.60357</td>
<td>.56695</td>
<td>82.1594</td>
<td>84.8406</td>
<td>82.00</td>
<td>86.00</td>
</tr>
<tr>
<td>low</td>
<td>25</td>
<td>80.2000</td>
<td>2.02073</td>
<td>.40415</td>
<td>79.3659</td>
<td>81.0341</td>
<td>75.00</td>
<td>84.00</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>86.3955</td>
<td>5.82675</td>
<td>.71185</td>
<td>84.9743</td>
<td>87.8168</td>
<td>75.00</td>
<td>96.00</td>
</tr>
</tbody>
</table>

As the summary statistics indicate, three groups outperformed differently. A one-way analyses of variance (ANOVA) was employed to check whether these differences were significant (see Table 2).

<table>
<thead>
<tr>
<th>Groups</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1959.114</td>
<td>2</td>
<td>979.55</td>
<td>222.5</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>281.654</td>
<td>64</td>
<td>4.401</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2240.769</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of ANOVA revealed statistically significant differences (F = 222.5, p = 0.00) among three groups, that is, high, average, and low ambiguity tolerant learners regarding cloze test performance. However, in order to see the exact points of variations among the groups, a Tukey post-hoc test was run (see Table 3).
According to the Tukey test, a significant difference among low ambiguity tolerant learners (M = 80.20, SD = 2.02), average ambiguity tolerant learners (M = 83.50, SD = 1.60), and high ambiguity tolerant ones (M = 91.63, SD = 2.24). However, the high ambiguity tolerant male learners outperformed the other two groups.

Table 4 shows descriptive statistics for the relationship between the level of ambiguity tolerance and cloze test performance among females.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Lower Bound</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>28</td>
<td>85.5000</td>
<td>2.20269</td>
<td>.41627</td>
<td>84.6459</td>
<td>86.3541</td>
<td>80.00</td>
<td>89.00</td>
</tr>
<tr>
<td>average</td>
<td>5</td>
<td>74.4000</td>
<td>4.15933</td>
<td>1.86011</td>
<td>69.2355</td>
<td>79.5645</td>
<td>70.00</td>
<td>80.00</td>
</tr>
<tr>
<td>low</td>
<td>34</td>
<td>71.1176</td>
<td>2.64878</td>
<td>.45426</td>
<td>70.1934</td>
<td>72.0419</td>
<td>65.00</td>
<td>77.00</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>77.3731</td>
<td>7.44238</td>
<td>.90923</td>
<td>75.5578</td>
<td>79.1885</td>
<td>65.00</td>
<td>89.00</td>
</tr>
</tbody>
</table>

As the summary statistics indicate, there was a difference among three groups. A one-way analyses of variance (ANOVA) was employed to check whether these differences were significant (see Table 5).

<table>
<thead>
<tr>
<th>Groups</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>3223.942</td>
<td>2</td>
<td>1611.97</td>
<td>238.960</td>
<td>.000</td>
</tr>
<tr>
<td>Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within</td>
<td>431.729</td>
<td>64</td>
<td>6.746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3655.672</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of ANOVA revealed statistically significant differences (F = 238.96, p = 0.000) among three groups. However, in order to see the exact points of variations among the groups, a Tukey post-hoc test was run (see Table 6).
Table 6: Tukey HSD

<table>
<thead>
<tr>
<th>Ambiguity</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Subset for alpha = 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>low</td>
<td>34</td>
<td>71.11</td>
<td>76.76</td>
<td>76.76</td>
<td></td>
</tr>
<tr>
<td>average</td>
<td>5</td>
<td>74.40</td>
<td>74.40</td>
<td>85.50</td>
<td></td>
</tr>
<tr>
<td>high</td>
<td>28</td>
<td>85.50</td>
<td>85.50</td>
<td>85.50</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

According to the Tukey test, a significant difference among low ambiguity tolerant learners (M = 71.11, SD = 2.64), average ambiguity tolerant learners (M = 74.40, SD = 4.15), and high ambiguity tolerant ones (M = 85.50, SD = 2.20). However, the high ambiguity tolerant female learners outperformed the other two groups.

Discussion

The present study the relationship between ambiguity tolerance and cloze test performance across gender. The results of the study revealed that high ambiguity tolerant learners performed much better than low and average groups. The effects of Post-hoc pair wise comparisons yielded a significant difference among the three groups (high, average, and low) across gender.

The results of this study are in line with a study conducted by Atefvahid, Fardkashani, and Haddadi (2011) which indicated that learners with higher levels of ambiguity tolerance were more likely to gain higher grades on the cloze test, and those with lower levels of ambiguity tolerance obtained lower scores on the cloze test. It can be due to the fact that ambiguity tolerant learners are more willing to take risks and make changes (Rubin, 1975; Stern, 1975; McLain, 1993) and show willingness to perform tasks and higher levels of achievement (Chapelle, 1983; Naiman, Todeso, & Frochlich, 1975).

However, the results do not support the findings of a study by El-Koumy’s (2000) that investigated the relationship between ambiguity tolerance and reading comprehension. They indicated that the middle ambiguity tolerance group outscored both the low and high tolerance groups, and there was no difference between the high and low tolerance groups.

This finding indicates that individuals with high ambiguity tolerance might perform well on the cloze test including several correct answers, thus the correctness of one’s answer to earlier blanks may be called into question as one ties to understand the passage and the test taker can not often successfully complete the text until the passage has been read several times. Another important factor is the fact that the texts are unclear and therefore many concepts may be intentionally or unintentionally left ambiguous for the learners to find out and may, therefore, result in a sense of anxiety when trying to comprehend the overall meaning of the cloze passage.

McLain (1993) shows tolerance extends on a continuum from rejection to attraction. The results of the present study demonstrated that the cloze test performance of the learners with more tolerance of ambiguity were favored towards the attraction end of the continuum. Furthermore, these results are strongly in line with the research done by Chappelle and Roberts (1986) which indicated that tolerant learners could function more rationally and calmly and were much more
successful in conducting their behavior to the problematic part. Having shown a high level of ambiguity tolerance, they were much more successful in accommodating themselves with the discomfort of the situation in order to produce more appropriate and correct responses to the cloze text.

Regarding the effect of gender on cloze test performance and the level of ambiguity tolerance, results indicated that males outperformed females in cloze test and they were more tolerant of ambiguity than females. It can be due to the fact that males were more tolerant of ambiguity and were able to make good guesses in test. The results are in line with Maubach and Morgan’s (2001) study which revealed that male students had higher level of ambiguity tolerance in comparison to their females.

However the findings were in contrast with Kissau (2006) who reported no gender difference in tolerance of ambiguity. Furthermore, the results of a study by Erten and Topkaya (2009) reported a significant difference between males and females in their tolerance of ambiguity in which females outperformed males. Moreover, the findings confirm the results of a study by Barati, Moinzadeh, and Marzban (2012) which indicated that females were less tolerant of ambiguities in the language learning context than their male classmates. This shows that females’ intolerance of ambiguities in language would make them look for the details more closely which is a useful strategy applied to complex issues in the process of language learning.

CONCLUSION
Cloze test in a foreign language is somewhat an ambiguous process involving processing unfamiliar linguistic input, which might eventually result in learners’ uncertainty and confusion. Success in such a complex and uncertain process may involve a lot of factors, one of which could be tolerance of ambiguity that learners show while answering. It is significant to explore this construct since an awareness of how it affects foreign language learners and learning may change the way teachers plan and perform their lessons, and help learners overcome their psychological barriers.

In this respect, the ultimate goal, meanwhile, was to explore male and female learners’ level of ambiguity tolerance in relation to cloze test performance which indicated that males were more ambiguity tolerant and more successful in cloze test performance. Moreover, high ambiguity tolerant learners in both groups (i.e., males and females) outperformed in cloze test compared to the other two groups, that is, average and low ambiguity tolerant learners. Furthermore, the interaction of gender and ambiguity tolerance enhanced cloze test performance. Teachers in all educational settings including language institutes, and schools will profit from the results which will provide insights on the advantages of improving learners’ level of ambiguity across gender in EFL settings. The findings indicated that high level of ambiguity tolerance was influential in enhancing both female and male learners’ cloze test performance.

Since, a certain level of intolerance (e.g. high) can be a kind of hindrance in the process of language learning, teachers are influential members in learning contexts and are expected to play
a role in helping learners to reach higher levels of success in language learning specially when ambiguities happen. This very role is manifested in teachers’ responsibility to enhance students’ awareness of methods, procedures and teaching content as well. As Dornyei (2005) explained, when learners are informed about procedures applied to classroom context in order to help them lower tolerance of ambiguity, they feel more self-confident and motivated in the language classroom if.

Thus, if teachers can familiarize the students with the existence of this cognitive factor and make them recognize and realize its influence on cloze test performance, students can accept the nature of ambiguous situations and try to overcome the debilitative effects of low ambiguity tolerance by consciously heightening their tolerance levels. They should continuously emphasize the fact that language learning is full of ambiguous dimensions and provide potentially suitable context for learners to find their ambiguity tolerance method and promote it towards academically recommended extent and directions.

Furthermore, the findings remind the teachers to be more cautious in interpreting the scores of the students because factors other than language knowledge are involved in determining the success of students and try to use strategic techniques to create an atmosphere in the classroom in which students feel comfortable and are encouraged to develop their own strategies. Also, material developers, as providers of a large portion of the language learning setting, will benefit from the findings. They should insert ambiguity tolerance strengthening motives and techniques in appropriate parts of a course book for learners to take into account.

Since this study is not without limitations, the findings need to be interpreted after considering them. Taking into account these limitations may also provide some applicable insights for conducting further studies. The most important limitation of this study was that it did not take into account the proficiency level. The researcher addressed just one proficiency level, that is, intermediate. In this regard, the findings may not be generalizable to other proficiency levels such as elementary, pre-intermediate and advanced. Furthermore, not all variables influencing foreign language learning have been controlled. For instance, personality, self-perceptions, beliefs, attitudes, intelligence, classroom atmosphere, etc., are also important variables which may influence foreign language learning. Finally, this study focused on a small number of EFL learners from one educational context. Therefore, it would be fruitful to focus on larger samples from various educational contexts in further research.

REFERENCES


McLain, D. L. (1993). The MSTST-1: A New Measure of an Individual’s Tolerance for


