Impact of Risk Taking Strategies on Male and Female EFL Learners’ Test Performance: The Case of Multiple Choice Questions

Mehrnoush Karimi
Department of Foreign Languages, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran

Reza Biria
Department of Foreign Languages, English School of Post-graduate Studies, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran

Abstract—This study scrutinized the interaction between gender and risk taking variables in test performance of Iranian EFL learners. The research was conducted on 120 male and female EFL learners from Islamic Azad university of Isfahan (khorasgan). The participants received a Venturesomeness subscale of Eysenck’s IVE questionnaire and were asked to rate each item on a 5-point Likert-scale. The total score for this questionnaire ranges from 16 to 80. Students who were lower than 30 were considered as low risk-takers, those who were more than 70 as high risk-takers, and those between 30 and 70 as moderate risk-takers. In a weeks’ time, a complete TOEFL PBT test comprising 140 multiple-choice items as the second instrument was administrated. The results revealed that the female EFL students were lower risk takers and left questions unanswered more frequently and skipped questions a lot more than their male counterparts. Finally, it was found out that low risk takers answered the least number of questions in comparison to high and moderate risk takers, and consequently, had the most number of questions left unanswered which had a negative effect on test takers’ performance.

Index Terms—gender, risk taking level, test performance, EFL learners

I. INTRODUCTION

Testing is an important part of every language teaching and learning experience so that it will be virtually impossible to focus on one without taking the other into account. In fact, testing is viewed as a constructive and practical teaching strategy giving learners useful opportunities for choosing appropriate choices that signal particular realities of language. Language testing today not only reflects current interests in teaching genuine communication, but it also reflects earlier concerns dominating how language tests are scientifically formulated. From a psychological perspectivization, test-takers’ mental or physiological states can affect their test performances during testing. For instance, anxiety, fatigue, motivation, etc. are certain specific factors which are strikingly important in shaping test-takers’ decisions when answering questions on a test. In addition, learners’ ability to take risks appears as one of the most influential variables evoking a significant change in learners’ behaviors taking a test, which has been considered a predictor variable of success in second language learning as well as learners’ test performance (Gass & Selinker, 2008).

The most important consideration in designing and developing a language test is the utilization for which it is expected so that the most important quality of a test is the fact of being useful (Bachman & Palmer, 1996). According to Bachman (1995), the two major purposes of language tests are the source of information for making decisions that are usually related to students, programs, and teachers as well as indicators of abilities or attributes that are of great interest in research on language, language acquisition, and language teaching in general. Consequently, a number of test methods such as cloze test, c-test, gap-filling, matching, multiple-choice, open-ended (or short-answer), ordering, recall, summary, and summary gap-filling are utilized to satisfy various purposes (Biria & Dehghan,2016). Debates continue about the best test methods for the purpose of estimating learners’ different knowledge of linguistic entities or skills. However, one of the most significant current test methods is the use of multiple choice questions in various testing environments. In point of fact, multiple-choice tests are widely used for the measurement of knowledge, ability and complex learning outcomes (Ben-Simon et al.1997). One of the merits of multiple choice test items is that they allow easy comparisons among test-takers, especially in large-scale standardized exams like TOFEL and IELTS. From a structural perspective, a multiple-choice item usually comprises of a stem that is a problem situation, and several alternatives providing possible solutions to a given language problem. In addition, multiple-choice responses minimize the disadvantages inherent in assessment procedures that require subjective rating (Campbell, 1999). Alternatively, as Johnston (1981) observes, multiple-choice items are “probably the most researched, most maligned, most difficult to construct, most abused, yet most functional of all items” (p. 82)
In a recent research by Lightbow and Spada (2013) on learner individual variables show that a complex interaction of both internal and external factors may influence EFL learners’ test performance. For example, an external factor which negatively affects learners’ motivations is a controlling, angry teacher while the tension that such teachers impart gradually to their students is an internal factor that influences students’ learning performance negatively. Brophy (2004) also investigated factors such as motivation and enthusiasm impacting test performance by stating that the learners may begin to encounter certain external practices such as replying to their teachers’ questions, finishing their assignments, taking tests, and having their performances monitored, graded, and reported to their parents which make them develop tension and psychological threats.

Alrabai (2016) classified the factors that affect the EFL achievement of Saudi learners into two main categories: Firstly, individual factors which are connected to demographic variables such as gender, age, motivation, attitudes, aptitude, anxiety, autonomy, learning strategies, etc. Secondly, external factors which are primarily pertained to factors which are uncontrollable. These external factors vary from sociocultural variables, like the impact of religious, social, and cultural beliefs to factors pertained to the nature of EFL instruction and to faults in the EFL educational system in Saudi Arabia.

Indubitably, there are many psychological and physiological factors which affect learners’ test performance. Nava and Galimberti (2015) have enumerated the psychological factors affecting L2 learning such as personality, motivation, self-efficacy, attributions, and anxiety. In another study, Mushtaq and Nawaz Khan (2012) found out the important factors that influence the academic performance of the students. This study was conducted in private colleges in Rawalpindi and Islamabad. By using appropriate statistical techniques, they found that communication, learning facilities, proper guidance and family stress are some of the factors that have a bearing on the students’ test performance. Communication, learning facilities and proper guidance reflect the ways students are influenced when performing on various tests. Therefore, the findings of the study indicated that communication is a vital factor loading test performance, while learning facilities and proper guidance were similarly impotent but to a lesser degree. Additionally, the results revealed that family stress reduced performance quality. Finally, the findings also indicated that risk taking is another significant variable concerning learners’ test performance.

According to Beebe (1983), risk taking has been defined as making a conscious choice between alternatives with different desirability; however, the outcome of the choice is not certain because there is always a possibility of failure. In line with Beebe’s definition, Alshalabi (2003) argues that risk-taking is a kind of moving toward something without thinking of the possible results. Thus language learners take risk during their second language learning period because they are replacing their established linguistic patterns with other unfamiliar ones, which involves a game of having a go (Gledhill & Morgan, 2000). There have been a whole lot of researchers working on risk taking in different aspects such as its impact on the development of various language skills.

Lee & Ng (2010) believed that in the field of second language learning, academic risk taking is a situation-based process that can be moderated by providing the appropriate contexts for its application. The contexts may range from the ones in which the learner knows what skill to use to the ones in which learning occurs in a probabilistic setting. The latter can lead students to extremes in the use of risk taking. The fact that risk taking is not a stable personality trait and that’s why researchers consider it as a potential tool to help students improve their learning.

Considering the characteristics of risk takers, risk taking students engage more actively in classroom participation. In other word, they value opportunities to produce language (Alshalabi, 2003). In addition, risk takers have some strategic techniques to cope with the uncertainty and risk levels involved in a particular situation usually such as guessing (Beebe, 1983). Moreover, they generally support ideas that are not supported by others. Such characteristics create some levels of responsibility management and courage to let them assume the consequences of their linguistic decisions, even when they are not supported by others in order to handle risk-taking situations. On the contrary, low-risk takers tend to be more inhibited and use less complex structures so that their levels of linguistic oral accuracy do not decrease considerably. The problem with inhibition on the part of low-risk takers is that it diminishes risk taking which is necessary for rapid progress in a L2.

It is interesting to note that the analysis of students’ risk taking behavior in EFL classrooms and the relation between risk taking and learning have often been the focus of research in many studies on testing problems. As an illustration, Cervantes (2013) examined the role of risk taking behavior in the development of speaking skills in ESL classrooms. He investigated that high risk takers enjoy several benefits when they venture into oral discourse. As a case in point, the learners were willing to try out new linguistic items and constantly looked for opportunities to learn the language. Unlike low risk-taking students, Students with high risk-taking behaviors in the second language may show a considerable increase of linguistic intake (Beebe, 1983). In a different study, Dehbozorgi (2012) conducted a research about the effects of attitudes towards language learning and risk-taking on EFL students with different proficiency levels. To this end, three instruments were used: Attitudes towards Language Learning Scale, Venturesomeness Subscale of Eysenck IVE Questionnaire, and Oxford Quick Placement Test (2005). 120 female and male college students majoring in English Translation at Marvdasht university participated in this paper. The results revealed there is no significant relationship between proficiency level and attitude towards language learning and participants with an intermediate proficiency level were actually higher risk-takers. The findings also demonstrated that differences in risk-taking between high and intermediate learners were statistically significant. Moreover, there was no significant
difference between high and low groups and low and middle proficiency groups in terms of risk taking strategies. Correlational analysis of the data revealed a significant positive relationship between attitude towards language learning and risk-taking. Besides, language proficiency and attitude towards language learning did not have a significant connection.

Similarly, Ghoorchaei and Kassaian (2009) investigated the relationship between risk-taking, as a personality factor, speaking fluency and grammatical accuracy of Iranian EFL students. In this research, 50 students who were at a similar level in terms of English language proficiency. The subjects were divided into 3 groups of high, medium and low risk-takers by means of carrying out picture description tasks and completing the Persian version of venturesomeness Subscale of Eysenck’s IVE questionnaire. The results revealed that in terms of fluency, high risk-takers were more fluent than low risk-takers, and medium risk-takers were the optimal group. Furthermore, it was concluded that the medium risk-takers were the optimal group in terms of grammatical accuracy in speaking.

Chitsaz and Sahragard (2005) examined Iranian EFL learners’ risk-taking characteristics and their performance in an English language test. The subjects of the study consisted of both male and female students in different fields in the master’s program studying. The instruments for data collection were an English placement test and a personality questionnaire. The data obtained was subjected to some statistical analysis. The results obtained showed that there is no correlation between being a risk taker and performance in language tests among a domain of Iranian EFL learners.

Biria and Bahadoran (2015) explored the role of risk-taking propensity and gender differences in EFL students’ multiple-choice test performance. To examine how risk taking impacts the quality of learners’ performances on multiple-choice tests, a sample of 120 male and female students were randomly selected. Based on the responses provided by the targeted samples to a modified version of Skaar’s Adolescent Exploratory and Risk Behavior Rating Scale (AERRS), they were divided into two groups with different risk-taking propensity levels. After a period of two weeks, a TOFEL paper based test (PBT) was administered to the respondents. The results revealed that the number of items on multiple-choice test unanswered by the females was higher than those by the males. In addition, test-takers with the higher risk-taking propensity levels answered more items so that fewer items were left unanswered. Zarfsaz and Takkac (2014) also addressed Turkish students majoring in teaching English as a foreign language (TEFL) and tried to explain and analyze their attitudes toward risk taking and silence in L2 classrooms. The study was conducted based on qualitative and quantitative data collection and analytical I techniques. In quantitative data collection phase, a non-experimental survey was conducted by administering a five-scale Likert questionnaire which was administered to all students. Subsequently, ten students were interviewed voluntarily. The study concluded that most of the participants were aware of the importance of risk taking and speaking in the classroom and had a positive attitude towards class participation. Teachers’ demanding behavior, anxiety and self-esteem, and ambiguity tolerance were also found to be the most inhibiting factors for Turkish EFL students.

In another study, Maftoon and Afroukhhte (2005) conducted a research about the relationship between risk-taking and vocabulary learning strategy use of Iranian EFL learners. In this research, 300 Iranian EFL students participated from two universities in Hamedan. Three instruments were used to gather data including Oxford Quick Placement Test (Version I), Vocabulary learning questionnaire developed by Gu and Johnson (1996), and Persian version of Eysenck’s Personality Test. Descriptive statistics were used to analyze the obtained data and the results showed that there was not a statistically significant relationship between risk-taking and vocabulary learning strategy use of Iranian learners in general.

Tavakoli and Ghoorchaei (2009) also investigated the relationship between self-assessment and teacher’s rating of speaking ability. Alternatively, risk-taking was singled out in order to examine its relationship with self-assessment. Seventy-Nine Iranian EFL students from Isfahan university took part in study and they were given a picture description task to elicit their speech samples. Later they were asked to assess their own speaking ability. Finally, the influence of risk-taking on students’ self-assessment was investigated. The results showed that there is no statistically significant relationship between self-assessment and teacher’s rating of students’ speaking ability in the picture description task. However, high risk-takers tended to assess their speaking ability higher than medium and low risk-takers.

In a different study, kalani, kazemi and Zoghi (2013) conducted a study by utilizing a sample of 100 guidance school students (50 males and 50 females) to investigate whether EFL learners’ performance is related to gender. The results indicated that female students outperformed male students. Likewise, Keshavarz and Ashtarian (2008) conducted a study on the relationship between reading comprehension test performance of Iranian EFL learners, text type and the gender. The findings indicated that male and female EFL learners differed in their reading comprehension test performance compared with females who were better comprehenders of English passages. Salem (2006), however, found no statistically significant differences between gender and reading comprehension test performance among targeted EFL learners As can be seen, the bulk studies on risk taking have mostly been carried out in the area of language skills. So far, however, there has been little discussion about the role of risk taking in domain of test performance. On this basis, the present study aimed to give an account of the way risk taking strategies influence EFL learners’ test performance when multiple choice test method is utilized. On this basis the main Research questions of the present study are:

**RQ1:** Is there any significant difference between male and female EFL students with regard to their risk taking level?
RQ2: Is there any significant difference between male and female EFL students concerning their unanswered multiple-choice questions of TOFEL test?

RQ3: Does risk taking level significantly differentiate Iranian EFL learners with regard to their unanswered multiple-choice questions of TOFEL test?

II. METHODOLOGY

A. Participants

The population of the study included all the MA English translation students at Islamic Azad University of Esfahan (Khorasgan) Branch. Using a convenient sampling method, 120 male and female students with an age range of 22 to 30 was chosen from the targeted population.

B. Instruments

Two instruments were used for collecting the required data in the study. First, Venturesomeness subscale of Eysenck’s IVE questionnaire with a five point Likert-scale was utilized in order to identify the participants’ level of risk-taking. The validity of the questionnaire was established based on specialist opinion, while its reliability was measured based on Cronbach's alpha and Spearman-Brown's equal-length split-half reliability formulas. Alpha reliability and split-half reliability were 0.83 and 0.85, respectively. Therefore, the questionnaire could be regarded as an appropriate data collecting instrument to determine participant's risk-taking level. It is worth mentioning that the Persian version of this questionnaire, developed by Kiany and Pournia (2006), was used in the present study. Second, a complete TOEFL PBT test comprising 140- multiple-choice items extracted from Philip’s (2015) book titled Preparation Course for the TOFEL Test (PBT) was used as the testing instrument whose purpose was to gauge the male and female participants’ risk taking level based on the number of questions left unanswered. The validity and reliability of this test was determined following the same procedure used for the questionnaire.

C. Procedures

To estimate the risk-taking behavior of the targeted samples, a Persian version of Venturesomeness subscale of Eysenck’s IVE questionnaire containing 16 items was administered. The participants were asked to rate each item on a 5-point Likert-scale from almost never to always. Numbers were assigned to them from one to five (almost never=1, rarely=2, sometimes=3, often=4, and always=5). The total score for this questionnaire ranges from 16 to 80. The participants were given 30 minutes to answer all the questions on the questionnaire. Participants whose scores were lower than 30 were considered low risk-takers, those who were at the percentiles greater than 70 high risk-takers, and those between 30 and 70 were moderate risk-takers. In a week’s time, the second instrument was administrated to the respondents who had already answered the questionnaire. The participants were told that leaving certain questions unanswered would not be penalized. The duration of the test was an hour and 45 minutes.

D. Data Analysis

Having collected the required data, SPSS version 20 was used for analyzing the data. The obtained data were analyzed using both descriptive and inferential statistics (i.e., two separate Independent samples t-tests and a one-way ANOVA).

III. RESULTS

The first research question aimed to examine whether there existed a significant difference between male and female EFL students with regard to their risk taking level. Thus, an Independent samples t-test was run, the results of which are presented in Tables 1 and 2 below.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>DESCRIPTIVE STATISTICS OF MALE AND FEMALE EFL STUDENTS’ RISK TAKING LEVEL</th>
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<td>Gender</td>
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<tr>
<td>Male</td>
<td>60</td>
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<td>Female</td>
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As is evident in Table 1 above, the mean and standard deviation of the male EFL students’ risk taking level were 54.08, and 20.50, respectively whereas the mean and standard deviation of the female EFL students’ risk taking level were 44.90 and 21.84, respectively.
Strategies
Risk Taking

The second research question intended to scrutinize whether there existed a significant difference between male and female EFL students concerning their unanswered multiple-choice questions on the TOFEL test. Therefore, an Independent samples t-test was run, the results of which are summarized in Tables 3 and 4 below.

Table 3 reflects that there existed a significant difference between male and female EFL students with regard to their unanswered multiple-choice questions of TOFEL test were 8.08 and 3.76, respectively whereas the mean and standard deviation of the female EFL students with regard to their unanswered multiple-choice questions of TOFEL test were 4.13, and 2.28, respectively.

As shown in Table 3 above, the mean and standard deviation of the male EFL students concerning their unanswered multiple-choice questions of TOFEL test were 4.13, and 2.28, respectively whereas the mean and standard deviation of the female EFL students with regard to their unanswered multiple-choice questions of TOFEL test were 8.08 and 3.76, respectively.

Table 4 reflects that there existed a significant difference between male and female EFL students with regard to their unanswered multiple-choice questions of TOFEL test (t 118= -6.95, p < .05). That is to say , the female EFL learners leave questions unanswered more frequently and skip questions a lot more (M= 8.08, SD = 3.76) than their male counterparts(M= 4.13, SD = 2.28).

The last research question of the study aimed at exploring whether risk taking level significantly differentiated Iranian EFL learners with regard to their unanswered multiple -choice questions on the TOFEL test. To this end, one- way ANOVA was run. Table 5 shows the descriptive statistics of the aforementioned groups.

As is evident in Table 5, 120 EFL learners participated in this study. They were equally divided into three groups of 40 EFL test takers (low risk takers, moderate risk takers and high risk takers) on the basis of their performance on risk taking inventory. The mean score and standard deviation values of the three aforementioned groups concerning their unanswered multiple-choice questions of TOFEL test were as follows: Low risk takers (M= 9.30, SD= 3.23), Moderate risk takers (M= 6.45, SD= 2.40), and High risk takers (M= 2.57, SD= 1.29).
Table 6 reveals that different levels of risk taking significantly differentiated Iranian EFL learners regarding unanswered multiple-choice questions of TOFEL test at the p<.05 level [F (2, 117) = 76.169, p = .000]. Therefore, it can be concluded that risk taking level has a statistically significant effect on Iranian EFL learners’ unanswered multiple-choice questions on multiple choice tests such as TOFEL.

Since P<0.05, does not exactly state where the significance lies, consequently, a Scheffe post hoc test was run. Tables 7 shows the results of Scheffe post hoc test.

Table 7 reveals that the three levels of risk taking are significantly different from each other concerning their unanswered multiple-choice questions on TOFEL test. That is to say, low-risk takers, moderate risk takers and high risk takers were significantly different with regard to their unanswered multiple-choice questions of TOFEL test. In point of fact, high risk takers answered more questions so that fewer questions were left unanswered (M= 2.57, SD= 1.29), whereas the moderate risk takers answered less questions; therefore, more questions were left unanswered (M= 6.45, SD= 2.40), and finally, low risk takers answered the least number of questions in comparison to other groups and consequently had the largest numbers of questions left unanswered (M= 9.30, SD= 3.23). These fluctuations are portrayed in Figure 1 below:

IV. DISCUSSION

This study sought to explore the impact of risk taking strategies on EFL learners test performance along with exploring the effect of gender on risk taking level. The first research question sought the difference between male and female EFL students with regard to their risk taking level. The regression analysis indicated that the male EFL students were higher risk takers (M= 54.08, SD = 20.50) and the female EFL students were lower risk takers (M= 44.90, SD = 21.84). It is perhaps of some interest to attempt to relate our findings to some lines of Nelson (2012) who believed that,
men and women are somehow characteristically different, men are more competitive, optimistic, adventurous and overconfident than women. Thus, they’d like to take more risk. Second, women have more pessimistic attitudes than men toward ambiguity, pressure and measuring probability. Therefore, they are probably more risk averse. The yielded results confirm the findings obtained by Biria and Bahadoran (2015), who found that, women are more risk averse test-takers in general and are at a significant disadvantage when performing on multiple-choice tests. Although the present data cannot address the question of why men are more risk takers

Regarding the second question of the study to scrutinize whether there existed a significant difference between male and female EFL students concerning their unanswered multiple-choice questions of TOFEL test. The result indicated that the female EFL learners leave questions unanswered more frequently and skip questions a lot more than their male counterparts. This result is in line with a research by Isabel and Pena (2016) who explored that females tended to leave more questions unanswered than did their male counterparts. Given that wrong answers in the multiple-choice exam were penalized (-0.25), a plausible interpretation of this finding is that female students were more cautious when answering the multiple-choice questions, whereas male students may have been more daring.

Finally, the last research question of the study aimed at exploring whether risk taking level significantly differentiates Iranian EFL learners with regard to their unanswered multiple-choice questions of TOFEL test. The results revealed that high risk takers answered more questions so that fewer questions were left unanswered (M= 2.57, SD= 1.29), whereas the moderate risk takers answered less questions, therefore more questions were left unanswered (M= 6.45, SD= 2.40), and finally, low risk takers answered the least questions in comparison to other groups and consequently had the most questions left unanswered (M= 9.30, SD= 3.23). The result approve the findings obtained by Biria and Bahadoran (2015), who found that test-takers with the higher risk-taking propensity levels answered more items so that fewer items were left unanswered. It can thus be suggested that skipping questions may have a significant but sometimes a negative effect on performance which contradict with the research findings by Chitsaz and Sahragard (2003) who claimed that there is no correlation between being a risk taker and performance in language tests among Iranian EFL learners.

V. CONCLUSION

Evidently, risk-taking and gender proved to be interactive variables and the link between the two and their impact on language learning are considerably crucial in second language teaching and learning. Even though risk taking does not result in learning, it is a personality trait which has a leading role in second language learning success. This study set out to explore the effect of risk taking strategies on Iranian EFL language test performance along with investigating the correlation between gender and risk taking concerning unanswered multiple-choice questions of TOFEL test. The results revealed that the female EFL students were lower risk takers and leaving questions unanswered more frequently and skipping questions a lot more than their male counterparts. Finally, it was found out that low risk takers answered the least number of questions in comparison to high and moderate risk takers and consequently had the most questions left unanswered.

The findings of the study might imply that performance on language tests is also affected by factors other than Communicative language ability (bachman 1995). Thus, Teachers as the leader of teaching-learning process and test developers are needed to fully be aware of such affective factors as gender or risk taking strategies. Moreover, teachers should take the students’ affective factors into account during teaching and learning activities. Risk taking plays a key role in increasing students’ motivation and make them to preserve their efforts on learning. Therefore, the teachers’ real job is to learn students how to keep adequate risk, neither too high nor too low.

Finally, there is still much work to be done and seen from this perspective, First and foremost, this study can be replicated to find out whether the same results would be obtained or not. Moreover, it certainly paves the way for more thorough studies in future to investigate how various variables defining individual differences such as self-esteem, motivation and introversion-extroversion impact Iranian EFL test performance. It might be also rewarding to investigate the association between gender and risk taking and their influence on four essential skills in language learning.

REFERENCES

Mehrnoush Karimi is holding an M.A degree English Translation from Islamic Azad University, Isfahan (Khorasgan) Branch, Isfahan, Iran. She has 2 years of working experience in teaching English to Iranian young adults, and more than 4 years in international commerce, Export and Import. She has published a number of papers including “The Effect of Flipped Model of Instruction on EFL Learners Reading Comprehension: Learners’ Attitudes in focus” and “Challenges in English to Persian Translation of Contracts and Agreements: The Case of Iranian English Translation Students”.

Reza Biria is an assistant professor of Applied Linguistics at the Post Graduate School, Islamic Azad University, Khorasgan Branch, Isfahan, Iran. He holds a Ph.D. in Applied Linguistics from Isfahan University, Iran. His main research interests lie in sociopragmatics and discourse analysis.