

THE RELATIONSHIP BETWEEN EFL TEACHERS' INTELLECTUAL BIORHYTHM AND THEIR BURNOUT

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ABSTRACT

The present study was intended to investigate if there was a relationship between Iranian English as a Foreign Language (EFL) teachers' intellectual biorhythm and their burnout. To achieve the aim of the study, a sample of 120 EFL teachers, who were teaching English in high school with more than five years' teaching experience in Tehran, Iran, was selected. Afterwards, Maslach burnout questionnaire (1986) was administered twice; when the biorhythm software indicated the teachers' intellectual biorhythm in high and low levels. Having collected the necessary data, the results displayed that the teachers' intellectual biorhythm correlated with their burnout. Therefore, the times at which they encountered burnout in their career could simply be anticipated. Undoubtedly, knowing this fact can assist teachers to monitor the highs and lows of this cycle in order to enhance their performance, motivation, and tranquility in their life and work place.

KEYWORDS: Burnout, EFL Teachers, Intellectual Biorhythm.

INTRODUCTION

The term *biorhythm* was first introduced by a German doctor called Wilhelm Fliess while he was doing research on his patients in 1890. He found the 23-day physical biorhythm and the 28-day emotional biorhythm in his patients. After him, much interest was expressed in studying more about the other parameters associated with biorhythm. Therefore, in 1920, the 33-day intellectual biorhythm and afterwards the 38-day sixth sense biorhythm were discovered (Foutkak, 2005).

Changes in the extent of an individual's feeling of happiness or desperation, having energy or lacking it, and his capability in carrying out different activities are all considered as the person's biorhythm with its three significant cycles; intellectual, emotional, and physical (Haghshenas, 2008). Clearly, each has a fixed period and three phases; positive, negative, and critical. Hence, it affects humans physically, emotionally, and mentally. Khalil and Kurucz (2007) define biorhythm as a theory which proposes three basic cyclical rhythms occurring regularly in human beings started at the moment of birth. They believe that biorhythms can widely be applied in industrial, medical, educational, athletic, military, and diplomatic fields for better participation in society.

Intellectual biorhythm influences the mind's power and the quantity of learning and it consists of 33 days. 16.5 days of it are in positive phase which means the brain and mind function more efficiently. Thus, decision making, problem solving, and learning procedures are facilitated. The

negative phase starts from the day 17 until 33 when the level of mind's performance is dropped dramatically. The most critical days are the ones when the biorhythm tends to pass from the active phase to the passive one (Daneshmand, 2004). It can be said that it is like the moment a cell phone shows the sign of "low battery" and it needs to be charged immediately.

According to Khalil & Kurucz (2007), biorhythm curves describe the energy levels and the ability for performance. When the curve of any cycle is to the right of the centerline, it is the "high" cycle (physical, emotional or intellectual) and when the curve is to the left, the considering cycle is "low". Consequently, if the intellectual curve is high, the mind is sharper, concentration will be easier, and the person becomes more creative. On the other hand, if it is an intellectual low, thinking and concentration may become difficult. When any of the curves crosses the centerline, this is a "critical" time in the cycle. Critical in intellectual biorhythm means your capacity is diminished, thinking is unclear, and it is better to have conservative behavior or to postpone the activities to a later time. Being aware of the level of intellectual biorhythm can play a vital role in effective performance for teachers in classes. Many claim that they can improve the quality of their lives and careers by monitoring the highs and lows of these cycles. Willy (2003) states that ignoring people's biorhythm is a significant element in their low productivity in their work place.

Meanwhile, in the 1970s, Herbert Freudenberger, an American psychologist, coined the word *burnout* to describe the results of severe stress experienced by people working in different professions. He encountered exhausted, listless, hopeless, and unmotivated people who were unable to cope. According to Cherniss (1980), burnout is a normal reaction to prolonged job stress which reduces the effectiveness of human service providers. The exhaustion can be emotional, mental or physical.

The person suffering from burnout can develop negative and cynical attitudes about his clients which lead him to view them as people deserving to experience troubles (Maslach & Jackson, 1980). Another aspect of burnout for such a person is the tendency to evaluate himself negatively, resulting to have low self-concept, particularly with regard to his job. He may also feel dissatisfied with his accomplishments (Maslach & Jackson, 1980). The negative effects of burnout influence every area of life including the individual's home, social life and can make changes in his body which cause illnesses like colds, flu, headaches, back pain, muscle aches, and insomnia (Smith et al., 2015). Teachers like people in other professions may experience burnout and this can likely be due to the high-stress work environment and emotional demands of the job, especially when their expectations about the job and the reality differ (Ruotsalainen, et al., 2014). This unhappiness and detachment can threaten their job, relationships, and health. Consequently, because of its many negative consequences, it's important to deal with burnout right away and by considering teachers' intellectual biorhythm, the times at which they might experience this feeling can be predicted. In spite of understanding teachers' burnout, there are no well-researched methods to diagnose it in order to make a valuable contribution to their health and well-being and only some questionnaires can be utilized for self-assessment (Hosseini & Mehdizadeh ashrafi, 2009). Obviously, the important role of supervisors and coworkers and some other factors such as

personality traits, career-related goals and attitudes as well as the sources of burnout need to be considered.

RESEARCH QUESTION

The primary aim of this paper is to investigate the hypothesized relationship between EFL teachers' intellectual biorhythm and their burnout to address some of the problems regarding this profession. Therefore, the following research question was put forward to fulfill the research purpose.

Is there any relationship between EFL teachers' intellectual biorhythm and their burnout?

METHODOLOGY

Participants

The participants of this study were 120 Iranian EFL teachers from Tehran, Iran, who were selected based on convenience sampling from all available teachers having university degrees (Bachelor's, Master's). They were of both females ($n = 79$) and males ($n = 41$) with different ages. These participants were a group of EFL teachers who have been teaching in high school with more than five years' teaching experience and their ages varied from 23 to 35 years old. Their fields of study were Teaching English as a Foreign Language (TEFL), English Translation, and English Literature. All had passed Teaching Training Courses (TTC) whether at their educational periods or in the course of in-service training courses.

Instruments

In the course of this study, the researcher made use of two instruments to collect the necessary data. Maslach Burnout Inventory (MBI; Maslach & Jackson, 1986) is one of the universal instruments used in this study. The questionnaire consists of three sub-dimensions; emotional exhaustion sub-dimension (EE, 9 items, maximum score – 54), desensitization sub-dimension (D, 5 items, maximum score – 30), and personal accomplishment sub dimension (PA, 8 items, maximum score – 48). This questionnaire should take approximately 25 minutes to be completed.

The second instrument was Biorhythm Software which can calculate the individual's level of energy, the physical strength, emotions, and thinking power daily. Thus, the person's different levels of energy is calculated according to his date of birth and he can see the reports of his physical, emotional, and intellectual energies from his birth day until future days on a diagram.

Procedures

The procedure of data collection went quite well. The teachers' intellectual biorhythm was considered in two phases; when it was high and when it was low, based on the report the software was giving. Therefore, the questionnaire was applied twice in two different phases. Calculating teachers' biorhythm was easy because the diagram of every person's intellectual biorhythm could be investigated simply by entering the exact date of the teacher's birth into the biorhythm software. Therefore, in the first phase, the questionnaire was administered when the diagram

indicated the teacher's high biorhythm and in the second phase when his biorhythm was low, then the necessary data was collected to be analyzed through descriptive statistics and MANOVA.

RESULTS AND DISCUSSION

Descriptive statistics were used to investigate the research question of the study in finding if there is any relationship between EFL teachers' intellectual biorhythm and their burnout. The results are shown in Table 1.

Table 1: Descriptive statistics of EFL teachers' performance on burnout questionnaire

	N	Minimum	Maximum	Mean	Std. Deviation
I feel used up at the end of the workday.	100	.00	6.00	3.3100	1.83510
I feel emotionally drained from my work.	100	.00	6.00	2.1500	1.46594
I feel I'm working too hard on my job.	100	.00	6.00	3.6500	2.32412
I feel frustrated by my job.	100	.00	6.00	4.392	1.63608
I feel fatigued when I get up in the morning and have to face another day on the job.	100	.00	6.00	4.328	1.60353
I feel burned out from my work.	100	.00	6.00	1.8500	1.58513
Working with people all day is really a strain for me.	100	.00	6.00	2.4200	1.64642
I feel like I am at my end of my rope.	100	.00	6.00	1.7600	1.48474
Working directly with people puts too much stress on me.	100	.00	6.00	2.3500	2.36291
I feel students blame me for their problems.	100	.00	6.00	1.5700	1.24928
I've become more callous toward people since I took this job.	100	.00	6.00	2.4900	2.17188
I worry that this job is hardening me emotionally.	100	.00	6.00	2.9300	1.74804
I don't really care what happens to some students.	100	.00	6.00	3.9400	2.20110
I feel like I treat some students as if they were impersonal objects.	100	.00	6.00	3.6800	2.19218
I feel exhilarated after working closely with my students.	100	.00	6.00	3.1300	2.02836
I feel very energetic.	100	.00	6.00	3.4500	1.41689
In my work, I deal with emotional problems very calmly.	100	.00	6.00	3.3300	2.04522
I can easily understand how my students feel about things.	100	.00	6.00	3.5200	1.96680
I have accomplished many worthwhile things in this job.	100	.00	6.00	3.0300	1.39592
I deal very effectively with the problems of my students.	100	.00	6.00	3.5200	1.96680
I feel I'm positively influencing other people's lives through my work.	100	1.00	6.00	2.7000	1.27837
I can easily create a relaxed atmosphere with my students	100	.00	6.00	2.8800	1.36241

The mean score of the most favored responses are discussed here as factors causing teachers' burnout. The most favored item was item 4 with mean score of 4.39, which indicates frustrating feeling by their job. The second favored item was item 5 with the mean score of 4.32 which shows fatigued feeling in the morning and their reluctance to face another day on the job. Other

important factors affecting teachers' burnout were not caring to what happens to some students and a feeling that was similar to treating some students as if they were impersonal objects.

In order to investigate the research question of the study, a multivariate ANOVA (MANOVA), which is an ANOVA with several dependent variables, was run to compare the burnout and intellectual biorhythm of teachers. In fact, MANOVA tests for the difference in two or more vectors of means. Before discussing the results, it should be mentioned that the test of homogeneity of covariance matrices was met (Box's $M = 10.75$, $p = .115$) (Table 2).

Table 2: Box's Test of Equality of Covariance Matrices

Box's M	10.751
F	1.708
df1	6
df2	16416.203
Sig.	.115

The assumption of homogeneity of variances was also met for professional development ($F(2, 97) = 1.01$, $p = .367$) and burnout ($F(2, 97) = .545$, $p = .582$) (Table 3).

Table 3: Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Burnout	.545	2	97	.582

Based on the results displayed in Table 4. ($F(4, 194) = 66.17$, $p = .000$, Partial $\eta^2 = .57$ representing a large effect size) (Table 4), it can be concluded that there was a correlation between the teachers' intellectual biorhythm and their burnout. Thus, the research question of the study was verified.

Table 4: Multivariate Tests; Burnout and Professional Development

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.999	68734.489	2	96	.000
	Wilks' Lambda	.001	68734.489	2	96	.000
	Hotelling's Trace	1431.969	68734.489	2	96	.000
	Roy's Largest Root	1431.969	68734.489	2	96	.000
Degree	Pillai's Trace	1.154	66.174	4	194	.000
	Wilks' Lambda	.137	81.611	4	192	.000
	Hotelling's Trace	4.168	98.978	4	190	.000
	Roy's Largest Root	3.573	173.298	2	97	.000

This study confirms the findings of Hosseini & Mehdizadeh ashrafi (2009) in discovering the relationship between university students' biorhythm and changes in their marks. They clearly demonstrated that the students received highest marks when their intellectual biorhythm was high and they got worst marks when their biorhythm was low.

Furthermore, in another study, Foutkak (2005) evaluated the effect of low biorhythm on the occurrence of job accidents among the staff of an electricity company in North Ireland. He

realized that people with low biorhythm were more likely to experience job accidents while working.

Finally, the results of this study are in line with a research carried out by Ostiguy et al. (2009). Their research displayed that there was a significant relationship between parents suffering from bipolar disorder and their children's stress. Thus, children of sick parents were dramatically more stressed, depressed, and exhausted than their peers with normal parents.

CONCLUSION

The primary aim of this study was to examine the possible relationship between EFL teachers' intellectual biorhythm and their burnout and as the results revealed, the teachers' intellectual biorhythm correlated with their burnout which means when the level of their biorhythm was low, their positive feelings were low (suffering from burnout) and when their biorhythm was high, the level of their energy was high (feeling positive).

On the whole, this study enriches the literature regarding teachers' burnout and intellectual biorhythm by exploring the existence and extent of the relationship between these two affective aspects in EFL contexts. It appears that the essential role of intellectual biorhythm needs to be taken in to more serious consideration due to its practical use for teacher educators and supervisors who are directly working with teachers. Knowing different factors that could have impacts on teachers' performance can help pre-service and in-service teachers overcome their problems more effectively. Further, one teacher might be strong in one aspect but it does not necessarily mean that he is strong or weak in another aspect. Knowing these issues can equip teachers to become more confident in order to handle their classes more successfully.

The present study is subjected to some limitations such as the participants of this research were Iranian teachers teaching English in high schools in Tehran. Obviously, including more teachers from different institutes and from different cities would give better results.

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THE RELATIONSHIP BETWEEN EFL TEACHERS' MOTIVATION ORIENTATION AND IRANIAN UNIVERSITY STUDENTS' ACHIEVEMENT IN THEIR EGP COURSES

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ABSTRACT

Nowadays, it is proved that motivation plays a significant role in foreign and second language instruction. Numerous studies have been conducted so far to explore its decisive role in foreign and second language learning and teaching (see Brown, 1994; Cranmer, 1996; Dornyei, 1994a; Oxford & Shearin, 1994; Williams & Burden, 1997). However, as Dornyei (1998) mentioned few studies have been carried out in the area of teachers' motivation to examine its possible association with students' motivation and achievement. Due to the importance of this issue, the purpose of the present study was to investigate the correlation between language teachers' level of intrinsic and extrinsic motivation and Iranian students' achievements in their EGP (English for General Purposes) courses. To this end, the teachers' level of motivation was investigated employing teachers' motivation questionnaire. Four English language teachers in the University of Gonbad teaching EGP courses participated in the current study and students' scores in these four classes were compared. The results were analyzed applying SPSS, using correlation and regression analysis to explore and predict possible association between variables. Being aware of the significance of teachers' motivation in learners' achievement will be useful for educational policy makers to look for ways to motivate teachers. It will also help teachers to behave in a better way to have good effects on students.

KEYWORDS: EGP courses, students' achievement, teachers' motivation, intrinsic motivation, extrinsic motivation

INTRODUCTION

Teachers' motivation, as a subfield of motivation, has gained a remarkable place in EFL/ESL context. As it is evident in the literature, teachers' motivation affect and is affected by various factors such as learners' motivation and achievement. During its long history, motivation has faced with a plethora of definitions and interpretations. As an instance, Molander and Winterton (1994, p. 133) defined teachers' motivation as "the willingness of employees to expend effort and exhibit desired patterns of work behavior in terms of level of performance and commitment to the enterprise".

Regarding teachers' motivation, Dornyei (1998) addressed a gap that should be filled. Although various studies and researches have attempted to investigate teachers' motivation, to the best knowledge of the researcher the gap still exists in the context of Iran. Thus, the purpose of the present study is to examine the relationship between English teachers' motivation and

students' achievement in EGP courses. To answer the following research questions 4 English language teachers' in the University of Gonbad complete the teachers' motivation questionnaire and their students' scores on final exam are compared. The results are analyzed using SPSS.

LITERATURE REVIEW

The significant role of motivation in foreign or second language learning has been proved today. There is a general consensus among teachers and researchers about the degree of effectiveness of motivation in the success of second and foreign language learning (Dornyei, 1998). In this sense, Dornyei (1998) emphasized that appropriate curricula, good teaching and high level of students' ability are useless on the presence of low level of motivation and students' achievement is not guaranteed in this situation. He also defined motivation as a "process whereby certain amount of instigation force arises, initiates action, and persists as long as no other force comes into play to weaken it and thereby terminate action, or until the planned outcome has been reached" (p. 118). In addition, in the area of EFL one of the factors that affect students' motivation and achievement is the teachers' motivation themselves.

Considering motivation of teachers, Molander and Winterton (1994, p. 133) defined it as "the willingness of employees to expend effort and exhibit desired patterns of work behaviour in terms of level of performance and commitment to the enterprise". Furthermore, Dornyei (2001) highlighted the importance of further studies in the area of teachers' motivation and addressed the lack of research in this domain.

There are a number of research studies around the topic of teachers' motivation. Exploring the relationship between teacher motivation and pupil motivation, Atkinson (2000) found that there is a positive relationship between the aforementioned variables. Additionally, Addison and Brundrett (2008) reported factors that can influence teachers' motivation and demotivation. They claimed that extrinsic motivators are more influential for primary school teachers' than intrinsic ones. In another study, Bernaus, Wilson and Garden (2009) explored the association between student motivation and achievement in English and teacher motivation and strategy use in the classroom. The result of the study indicated the three is a positive relationship between the variables and the improvements in the teachers' level of motivation caused by possible changes in educational system will result in students' achievements as well. Finally, Hettiarachchi (2013) in an article entitled English Language Teacher Motivation in Sri Lankan Public Schools investigated teachers' motivators and demotivators in the context of Sri Lankan public schools. He reported students themselves, the act of teaching students, and the prestigious social position for English teachers in Sri Lanka as possible motivators and inefficiency of school administration and zonal education offices, difficulties in obtaining teacher transfers, the discrepancy between the English curriculum and students' English proficiency, and the poor relationship between colleagues as demotivators of teachers.

Regarding the significance of teachers' motivation mentioned above and the studies conducted to explore its possible relationships with other factors like the strategies used by teachers or students' motivation, lack of studies in this domain in the context of Iran is felt. In fact, there are

few studies which aimed to investigate the teachers' motivation in Iran. However, Papi and Abdollahzadeh (2012) examined the possible relationship between teachers' use of motivational strategies and students' motivational behavior in the EFL context of Iran. Besides, Kermani and Poorahmadi (2014) conducted a study to explore the effects of other possible factors on EFL teachers' motivation in Iran.

To the best knowledge of researcher, there has been no study to explore the relationship between Iranian teachers' motivation and students' achievement. Thus, the purpose of the present study is to investigate whether there is a relationship between teachers' extrinsic or intrinsic motivation and students' achievement in EGP courses.

RESAERCH QUESTIONS

1. Is there any relationship between EFL teachers' overall motivation and Iranian university students' achievement in their EGP courses?
2. Is there any association between EGP teachers' intrinsic motivation and Iranian university students' achievement in their EGP courses?
3. Is there any correlation between EGP teachers' extrinsic motivation and Iranian university students' achievement in their EGP courses?

METHODOLOGY

Participants

The participants of the present study were chosen from the English teachers in the University of Gonbad, Iran. Four English teachers, 3 male and 1 female, completed the teachers' motivation questionnaire. The scores of students in EGP courses in these 4 classes were compared. By using SPSS, correlation analysis conducted to analyze data. The teachers' motivation questionnaire includes 12 questions which are based on likert scale (strongly agree to strongly disagree, appendix 1). Then the correlation between each teacher's level of motivation and the mean score of students' final exam is computed to analyze the relationship.

Instruments and Materials

The teachers' motivation questionnaire was used as an instrument to extract data from teachers (the questionnaire is available in appendix 1). The questionnaire has 12 items and based on the likert scale from strongly agree to strongly disagree. The reliability of the items was 0.7. Besides, students' final exam may consider as an instrument, since the results of them were considered to compute correlation between teachers' level of motivation and learners' achievement.

Data Collection Procedure

After receiving completed questionnaires from teachers, they provided the researcher with the students' final scores to compute correlation. The researcher was present in the final exams of the students and questions were checked to ensure reliability and validity of the process and examinations. Then the correlation between each teacher's level of motivation and the mean score of students' final exam was computed to analyze the possible relationship.

RESULTS AND DISCUSSION

According to the table presented below, there is a significant relationship between teachers' motivation and students' achievement in EGP courses.

Based on the data, there is a positive and significant correlation between variables as $r=.98$, $N= 4$. It means that, high levels of teachers' motivation may associate with high scores of students.

As mentioned above, the result of the present study demonstrated that learners' achievement in the final exams has significant and positive relationship with level of teachers' motivation. Four teachers completed the questionnaires. The findings of this study are in line with the findings of the study conducted by Atkinson (2000) which showed a positive relationship between teachers' motivation and students' achievement. Lots of other studies have been carried out all over the world in the area of teachers' motivation. Faculty motivation is an idea related to this domain. Furthermore, there are a number of studies in the domain of faculty motivation such as O'Meara (2008) and Bolliger and Wasilik (2009).

Moreover, there are other factors explored to have relationship with motivation. This matter was investigated in the studies conducted by Papi and Abdollahzadeh (2012) and Kermani and Poorahmadi (2014). These studies and the present study are all indication of the significance of motivation and specially teacher motivation in language teaching and learning.

Table 1. Two tailed Pearson correlation between TM and SS
Correlations

		TMQ	SS
TMQ	Pearson Correlation	1	.988*
	Sig. (2-tailed)		.012
	N	4	4
SS	Pearson Correlation	.988*	1
	Sig. (2-tailed)	.012	
	N	4	4

*. Correlation is significant at the 0.05 level (2-tailed).

CONCLUSION

The result of the present study demonstrated that the learners' achievement in the final exams have significant relationship with the level of teachers' motivation. Four teachers completed the questionnaires, 3 male and 1 female, their age ranged between 28-45. The results indicated positive and significant correlation.

Regarding the significance of teachers' motivation, more works in this domain in the context of Iran is needed. Since, literature has indicated that motivation is an important matter for both teachers and students.

It is noteworthy to state that, the learners' scores are not necessarily the indication of their achievement if the exams are not based on objective norms. However, the researcher does not guarantee the objectivity of the evaluations of the teachers participated in the study. Thus, this may consider as one of the limitations, not access to scores which their objectivity were guaranteed. Another matter is the small group of teachers participated in this study. More participants may demonstrate better results.

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APPENDIX 1

Teacher Motivation Questionnaire

Indicate how much you agree or disagree from the following choices:

Strongly Agree (1)

Agree (2)

Neither agree nor disagree (3)

Disagree (4)

Strongly disagree (5)

	Strongly agree			Strongly disagree	
1. I'm fully satisfied with my job.	1	2	3	4	5
2. The teachers in my school really work as a coherent team.	1	2	3	4	5
3. I wish the Educational Authorities valued my job as I deserve.	1	2	3	4	5
4. I wish I could change to a new school.	1	2	3	4	5
5. I wish I had more homogeneous classes.	1	2	3	4	5
6. I worry about mixed ability classes.	1	2	3	4	5
7. My present job helps me to fulfil all the objectives I have as a teacher.	1	2	3	4	5
8. The Director and her/his team are doing an excellent job at our school.	1	2	3	4	5
9. I wish I could teach another subject.	1	2	3	4	5
10. The Educational Authorities are doing their best to improve public schools quality.	1	2	3	4	5
11. I would like to have another job.	1	2	3	4	5
12. My students' achievements really motivate me to get on with my job.	1	2	3	4	5

Please remember there are no right or wrong answers.

THE EFFECT OF CALL ON IRANIAN EFL LEARNERS' GRAMMAR OF WRITING

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ABSTRACT

This study was conducted to investigate the application of computer (CALL) on grammar of writing. To this end, a quasi-experimental design and quantitative method study was adopted. Oxford Placement Test (OPT), pretest and posttest in form of paragraph writing and adopted editing checklist were used to collect data from 50 homogenous intermediate English as a foreign language (EFL) participants selected from a large sample at Azad university of Marivan Branch. The data were analyzed descriptively and inferentially using ANCOVA to test the CALL effectiveness on EFL learners' mechanics of writing. Twenty five participants in the experimental group in ten sessions used CALL package developed by researcher contained audio, video, captured picture, and script of a short film of related topics, but twenty five participants in control group just used the traditional package included a writing textbook. The results of the study revealed that there was a significant difference between the students' grammar of writing scores mean in the experimental group compared to students in control group. The study suggests that computer applied in grammar of writing instruction should be given much more consideration to improve the learners' writing skill in EFL settings, and to motivate both teachers and learners while working grammar of writing skill.

KEYWORDS: CALL, EFL Learners, Grammar of Writing

INTRODUCTION

Recently, writing skill is receiving great interest and an important role in second and foreign language education (Reid, 2002). It is becoming inevitable part in schools and universities teaching language instruction as a measure for academic success Jahin (2012). According to Fageeh (2011) writing products act as an input for emotions and thoughts and though it comes after other skills in the case of learning but it is an influential element in the second/foreign language learning. Kelly (2002) believed that the writing process has long held a reputation of

intimidation for educators while teaching, and students during learning their course. Good written products involve considering different elements which makes it both coherent and accurate. Of those elements, the grammar of writing plays a significant role to produce readable and comprehensible texts.

According to Richards and Schmidt (2002) grammar is “description of the structure of language and the way in which linguistics units such as words and phrases are combines to produce sentences in the language”. EFL learners are challenged in writing because of their incomplete command of grammar and also vocabulary with which they express their thoughts and ideas. Grammar has been taught by traditional methods for many years but the learners’ achievement in this area was insufficient. CALL in EFL settings plays role as a facilitative device and it is popular in education. According to (Warschauer &Healey, 1998) integrating technology into writing process may facilitate and have the potential to make a greater effect than any other strategies. Computer-Assistant Language Learning is defined as “the study of applications of the computer in language learning and teaching” (Levy 1997).

CALL in this study includes using combination of four aspects of CALL, that is, audio, video, image, and text to teach learners the mechanics of writing in accordance with natural way of learning language. Grammar of writing in this study included subject-verb agreement, noun-pronoun agreement, adjective-noun order, and verb tense. As much of the earlier studies have focused on the efficacy of CALL, studies on the impact of CALL on the students’ grammar of writing achievement seems inadequate. Hence, to fill the gap in this area the main purpose of this study mainly is to understand how CALL application affects Iranian EFL learners’ grammar of writing which includes subject-verb agreement, noun-pronoun agreement, adjective-noun order, and verb tense.

REVIEW OF THE LITERATURE

Warschauer and Healey (1998) assure that computers have been used for language teaching since the 1960s. They divided the history of CALL into three phases. Behavioristic CALL was employed in the 1960s and 1970s which based on the behaviorist theory of learning and recognized with repetitive language drills. Communicative CALL was the next stage that appeared in the late 1970s and early 1980s. The focus in this era was on the communicative teaching method and encourage learners to produce original utterances via process of discovery, expression, and development which are created in the mind of learners rather than only repeating prefabricated language (Ahmad Corbett, Rogers & Sussex, 1985). The most recent development in the area of CALL is integrative CALL. During this period programs were developed on CD-ROMs, combine a variety of media (text, sound, pictures, video, and animation) that can be related together in order to convey a stimulating learning environment that four skills were integrated.

Mudge (1999) proposed four stages. The original stage started in 1950s when few foreign language institutes employed phonograph, broadcast, movie, tape recorder and other current media in foreign language teaching. In this period of time audio and video were regarded important revolution in EFL teaching and learning. In the 70s and 80s, audio and video developed with advancement of electronic such as Electronic taping, slide projectors, videocassette players, and language labs and other electronic devices. By the beginning of the 1990s, technology has been increasingly available and integrated in foreign-language

instruction due to incredible advancement of computer and coming digital technology. In the early 2000s, internet as a powerful medium was emerged which is providing a worldwide tool of obtaining information, lightening the work-load, and communicating with others wherever they are or whenever they wish.

There have been done many research in this domain by researchers such as Kutlu (2013) intended to shed light onto the effects of instruction videos to teach writing to university students. The results of this action research showed that the fact that technology is necessary for improving the writing skill. Liou and Yeh (2000) studied forty-two college freshman in Taiwan setting to whether and in which way grammatically CALL help English writing instruction. Findings showed that classroom combining with grammatical CALL is helpful. Brinton and Holten (1997) in a study stated that CALL help instructors to motivate learners by bringing a slice of real life into the classroom environment they pointed out that by media huge amount of and richness of cultural input information can also be provided in the classroom. Mehragan (2012) investigated the effects of CALL on improving EFL learners' grammatical ability. The results of the study after a posttest indicated that the experimental group outperformed the control group. Tajzadeh, Jahandar and Khodabandehlou (2013) in a research explored the effect of visual presentation on Iranian Intermediate EFL learner's writing ability. The results revealed that learners in the experimental group got higher scores in writing after receiving visual presentation.

RESEARCH QUESTIONS

To achieve the purpose of the present study, the following research question was posed:
Does CALL make a significant difference in EFL learners' grammar of writing?

METODOLOGY

Participants

The population of the study consisted of 50 EFL learners including 20 male and 30 female learners. They were selected randomly from a larger sample of 100 EFL learners majoring in English teaching in Azad University of Marivan Branch, Iran. All the participants, aged 20-25, were native speakers of Kurdish or Persian and senior, and they were EFL associated of diploma students in English teaching major. Oxford Placement Test (Allen, 2004) was used to determine participants' level of proficiency, following the scoring guidelines by Allen (2004) the participants who scored just between 120-150 out of the total score, i.e. 200, were considered as intermediate-level participants, then to ensure participants' homogeneity, a writing paragraph test was administered to check samples in terms of writing ability. Then participants were divided into two groups, one of which was considered as experimental group and the other as control group.

Instruments

Oxford placement test (OPT)

In order to selecting the intermediate level participants the researcher used OPT. It includes two sections: 100 multiple-choice grammar items and 100 multiple-choice listening which each one has three choices. According to Tahriri and Yamani (2010) administering listening part involves applying knowledge of sound and writing system in accordance with speed of

native speaker competence and grammar section tests the grammatical knowledge of examinee in contextualized items.

Writing paragraph

The researcher pursued three goals by using paragraph writing as an instrument: firstly, after administering OPT the sample wrote a paragraph to ensure their homogeneity in terms of writing ability, secondly, the participants in both control and experimental groups wrote a paragraph about the specific given topics as a pre-test to check differences which were researcher aimed to prove after treatment, thirdly, all participants in both experimental and control groups took part in writing paragraph session as a post-test to compare obtained results to recognize whether the treatment was effective in improving writing skill or not.

Adopted editing checklist scales

The researcher adopted a checklist (see Appendix B) included grammar scales checklist based on following checklists which are highly valid (Cumming, Kantor & Powers, 2001):

- Text Features to Which ESL/EFL Instructors/Assessors Attended While Rating TOEFL Essays (2000).
- Hoyt & Therriault (2008) • Scholastic • Mastering the Mechanics: Grades 2–3.
- Writing Well: Write, Revise, Succeed! Libby Wilson and published by New Readers Press in 2006.

Data collection procedure

In present study two tests were administered to collect data: Oxford Placement Test (OPT) and paragraph writing. OPT acted as pre-test to realize the participants proficiency level but the second test assumed as both pre-test and post-test. Paragraph writing administered to test subjects' writing skill. Ultimately, researcher through an adopted checklist which included four categories of writing mechanics: punctuation, capitalization, spelling and using numbers, collected the data, then scored participants' writing paragraph according to categories in checklist.

Data analysis procedure

For analyzing the data in present study, first the normality of collected data were calculated then analyzed in two ways: descriptive and inferential statistics. By descriptive statistics a set of mathematical procedures described the main features of a collected data quantitatively and the results were reported by Tables and Figures and the inferential statistics used for analyzing the samples' data to generalize from a sample to a population beyond actual observations and also generalize from a sample to a population. The Analysis of covariance in this research was ANCOVA and it was done by computer assisted program (SPSS) software.

RESULTS AND DISCUSSIONS

Descriptive statistics

Using computer can affect EFL learners' writing grammar. To investigate the effectiveness of the CALL on students' writing grammar, the experimental and control groups' scores in both pre-test and post-test of writing a paragraph were compared. Table 1 shows the descriptive finding of learners' scores in Azad University of Marivan for the both pre-test and post-test. It indicates that the control group mean in writing grammar was 11.16 in pre-test and 12 in post-test which implies that the control group's mean scores in pre-test and post-test of writing

grammar after the course didn't enhanced their mean scores, but the experimental group's mean scores after treatment boosted from 11.88 in pre-test to 16.28 in post-test which proved the effectiveness of using computer in writing grammar improvement. Therefore, it can be concluded that writing improvement of Iranian EFL learners was attributed to CALL.

Table 1: The mean of pre-test and post-test scores in writing grammar

Groups	Pre-test	Post-test	Number
Control	11.16	12	25
Experimental	11.88	16.28	25

As it can be shown from figure 1, the comparison of the experimental and control groups' mean reveals that subjects in the experimental group obtained relatively higher scores in post-test than their counterparts in the control group.

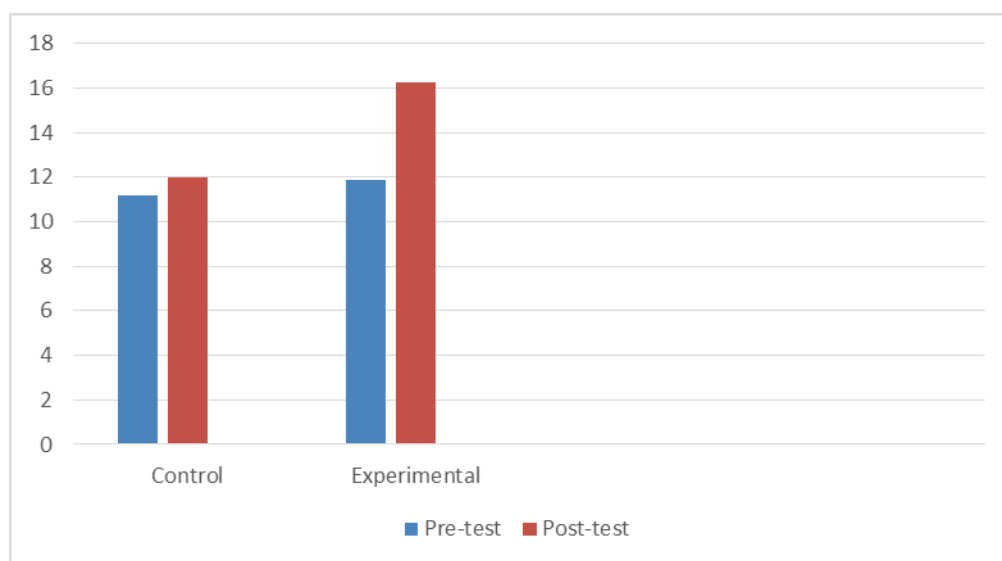


Figure 1: the mean scores of post-test and pre-test in writing grammar

Inferential statistics

Using computer can affect EFL learners' writing grammar. To test this hypothesis, the generalized liner model of covariance analyze and repeated measures in SPSS 22 software were used by the researcher. Table 2 shows the descriptive statistics of both groups in pre-test and post-test which indicates the experimental group in writing grammar post-test outperformed control group but the experimental and control groups were equivalent in pre-tests. The standard deviation of both control and experimental group was the same and this shows the homogeneity of the two groups at the outset of the study namely students' using computer in writing grammar.

Table 2: Descriptive statistics of pretest and posttest in writing grammar mean scores

Test Time	Group	Mean	Standard Deviation	No.
Pretest	Control	11.16	1.14	25
	Experimental	11.88	1.24	25
Posttest	Control	12	1.23	25
	Experimental	16.28	1.41	25

Table (3) shows the ANCOVA for computer effectiveness on writing grammar. As shown the degrees of freedom was 1 and sig was 0.001, so by one per cent error of probability the students' scores in experimental group in post-test was higher than students' post-test scores in control group. In other words, it can be concluded that application of computer has a positive and significant effect on grammar of English language writing and the second hypothesis was confirmed. In addition, Eta factor was 0.770 which shows the high effect of using computer on grammar of writing, so by one per cent error probability the null hypothesis is rejected.

Table 3: Covariance of computer effect on students' writing grammar mean scores

Source of Variation	Sum of Squares	df	Mean of Squares	F	Sig	Eta square
Test Factors	171.61	1	171.61	347.212	0.001	0.879
Groups*Test Factors	79.21	1	79.21	160.56	0.001	0.770

Figure (2) shows the effectiveness of using computer in students' grammar of writing. As seen in Figure, the mean scores of control group who did not use the computer are similar in both pre-test and post-test, but experimental group scores who used computer in writing was increased in post-test in compared to low scores they got in pre-test. Therefore, it can be concluded that applying computer in writing instruction improved students' writing grammar significantly, so the Figure also confirms the table statistics.

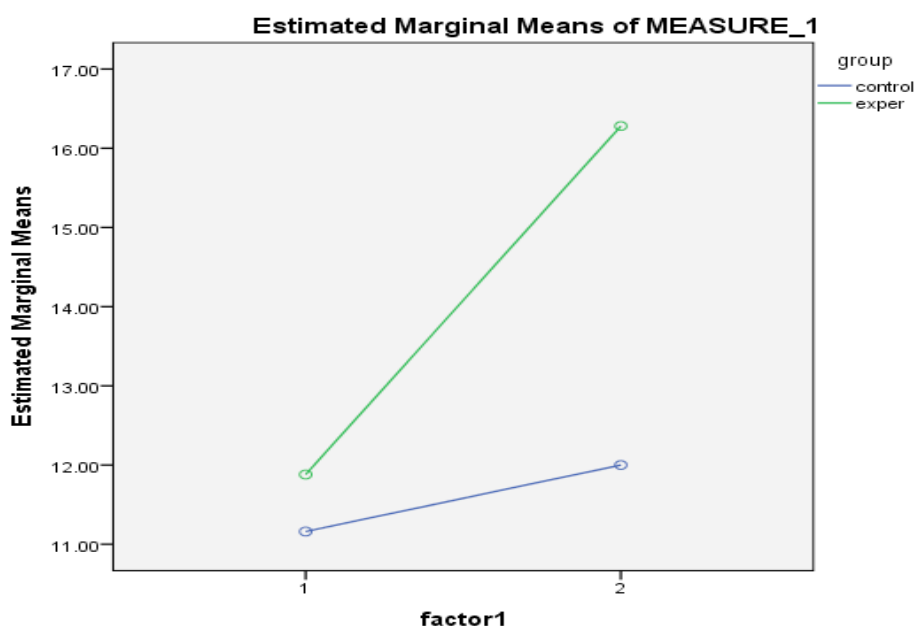


Figure 2: comparing under study groups' mean scores in writing grammar post-test

The present study concerned that computers improved the EFL learners' grammar of writing, as the findings of this study demonstrate, computers as a powerful and popular device can help learners increase their grammatical competence by exposing them to the authentic materials. According to obtained data indicates the experimental group's mean score whom were taught by CALL package was increased from 11.88 in pre-test to 16.28 in post-test, but the control group participants in this study that were presented the traditional material scored lower marks as descriptive statistics shows their mean was 11.16 in post-test and 12 in pre-

test. Therefore, the null hypothesis was rejected and the effectiveness of CALL application in teaching grammar of writing was approved.

The findings of this study are compatible with some previous studies which reported that the CALL program improved the writing such as (Mehrgan 2012; Ghorbani & Marzban 2013; Levy, 1997; Hubbard & Siskin, 2004; Levy & Stockwell, 2006; Pusack & Otto, 1984; Skinner, 1954). Ewing (2000) also states that learners find chances and opportunities for improvement in grammar learning in a CALL classroom that they can't be available in traditional environment. Moreover, Torlakovic and Deugo (2004) tested this hypothesis that learners who made use of CALL in grammar instruction showed more improvement. Although, the results of the current study are different from the findings by Bloom (1985) who believes that some students face difficulty in using computer programs. The results of the present study are not conclusive and more research studies on CALL and grammar teaching are required.

CONCLUSION

This study aimed to launch an investigation into the impacts of computer-assisted language learning (CALL) on EFL learners' grammar of writing skill. The experimental group made use of the CALL package to improve their grammatical ability while control group were taught by traditional package. The data obtained from the post-test revealed that the experimental group improvement in grammar of writing was the result of using the CALL-based instruction.

The following conclusions can be drawn from the study:

- Exposing learners to authentic materials of second language gives them comprehensible inputs as grammatical competence which can be used by learners when the start writing.
- The findings of this study indicate that teaching the grammar of writing through CALL package suggests new teaching methodology in presenting material which is more enjoyable and effective than traditional methods.
- Using CALL for presentation the grammar of writing in classroom leads to learning grammatical points in contextual situations in which learners can produce more natural, accurate and fluent paragraphs and also expressing clear meanings by appropriate structures.
- Increasing the autonomy of the language learner is another special characteristic of CALL-based writing instruction, that is, learners are not dependent on teachers or other member of the class in selecting the types of materials, the time and place of presentation pace, the degree of difficulty, and pace of presentation.
- Application of CALL in teaching grammar of writing instruction facilitates teaching both grammar and writing by combining audio, video, images, and text which attract more learners' attention into the learning process.
- Integrating CALL in teaching process removes some psychological barriers that might cause affective filters which composing a piece of writing.

Limitations of the study

There will be number of limitation in conducting this study:

- Gathering the data is not easy because of the unavailability of the essential equipment which are required for experimental group like computer tools for learners to be used constantly.
- Some software which are used for showing the effectiveness of CALL on writing skill are complex and participants need to have some special training before conducting the research which both time consuming and causing financial problems for the researcher.
- The control group cannot be controlled completely because they are always surrounded by numerous using of CALL at home and school.
- The participants in this study limited to learners aged 20-25, the result might be different for other learners in different ages.

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APPENDIX A

Table 1: Educational Package Using Computer in Writing Achievement

Treatment Sessions	The Audio-Visual Presented Topic in Treatment Sessions	Writing Skill Instruction
First Session	The active office	The importance of the writing mechanics in writing skill
Second Session	Airport security	Writing: marking
Third Session	Armchair tourism	Writing: spelling
Fourth Session	Battle of the oranges	Writing: capitalization
Fifth Session	Bridge of love	Writing: numbers
Sixth Session	Driving change in west bank	The importance of the writing grammatical points in writing skill
Seventh Session	Many kinds of intelligence	Subject-verb agreement
Eighth Session	Robot chef	Noun-pronoun agreement
Ninth Session	Robot security guard	Noun-adjective order
Tenth Session	Stone from the sky	Verb tense

APPENDIX B

Table 2 the criterion for scoring participant's marks in writing grammar

Participants' writing paragraph samples	Subject-verb agreement	Noun-pronoun agreement	Noun-adjective order	Verb tense
1				
2				
3				
4				

THE RELATIONSHIP BETWEEN EFL LEARNERS' LINGUISTIC, INTERPERSONAL AND INTRAPERSONAL INTELLIGENCES AND THEIR LISTENING COMPREHENSION PERFORMANCE

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ABSTRACT

The present study aimed at investigating the relationship between English as foreign language learners' linguistic, interpersonal and intrapersonal intelligences and their listening comprehension performance. Participants of this study were 80 EFL learners studying at Allame Tabatabaee high school of Tehran in academic year 2015-2016. The listening section of PET and the Persian version of The Multiple Intelligences Questionnaire were administered to tap participants' scores on listening and multiple intelligences. Statistical evidence through calculation of Pearson correlations and a multiple regression analysis proved that listening comprehension and the linguistic intelligence had a positive and significant relationship. The relationship between listening scores and the interpersonal scores turned out to be negative but non-significant. Moreover, the relationship between listening scores and intrapersonal scores came out to be non-significant and positive. With respect to predictability power of the three components of multiple intelligences in predicting foreign language listening comprehension, it was revealed that linguistic intelligence could significantly predict listening comprehension performance of Iranian foreign language learners while the interpersonal and intrapersonal intelligences failed to predict listening comprehension due to the lack of a significant relationship between them. As a result of the study, the listening comprehension performance of EFL learners can be promoted by encouraging linguistic intelligence among them.

KEYWORDS: listening comprehension, Linguistic Intelligence, Interpersonal Intelligence, Intrapersonal Intelligence

INTRODUCTION

From among different language skills, listening seems to have a special place and seems to play an important role as a source of input for language learners. Carter and Nunan (2001) define listening as the term which is used in language teaching to refer to a complex process that allows

us to understand spoken language. According to Rost (2002), listening is a process the definition of which involves several aspects. The first aspect is receiving what the speaker says. Secondly, the listener ought to construct the meaning, and following that negotiate that meaning with the speaker and respond to it accordingly. Doing so, as he concludes the listener creates meaning through involvement, imagination and empathy. Thus, listening can be defined as a social process in which others are present and the construction of meaning and its negotiation are of utmost importance.

Lund (1991, p.196) defined listening comprehension as “the construction of meaning using both the decoded language and the comprehender’s prior knowledge”. Thompson and Rubin (1996, P. 331) also define the listening process as “an active process in which listeners select and interpret information that comes from auditory and visual clues in order to define what is going on and what the speakers are trying to express”. Listening is in fact “the active and dynamic process of attending, perceiving, interpreting, remembering, and responding to the expressed (verbal and nonverbal) needs, concerns, and information offered by other human beings”(Purdy, 1997, p. 8). Given the fact that both auditory and visual clues play a role in listening comprehension and considering the proposition that listening comprehension involves several aspects including the reconstruction of meaning through negotiation in a social setting, the relevance of listening comprehension to multiple intelligences theory surfaces.

Intelligence is one of the most controversial issues discussed in relevance to all language learning skills and components in general and listening comprehension in particular. Gardner (1999) defines intelligence as a collection of potentialities or abilities that permits people to solve problems or make products which are of value in a particular cultural setting. He believes that people do not have one intelligence, as measured by standard IQ testing, but several strengths or intelligences, resulting in a ‘jagged intelligence profile’. Multiple Intelligence Theory (MI) has broadened the vision of educators in general and language educators in particular specifically for its implications for classroom instruction.

Considering the significant role of listening comprehension in the context of language learning (Carter & Nunan, 2001; Lund, 1991; Purdy, 1997; Rost, 2002) and the vital importance of intelligence in general and multiple intelligences in particular in all educational contexts and ELT context (Armstrong, 2000; Christison, 1996, 1998; Christison& Kennedy, 1999; Lin, 2000; McKenzie, 2002), the present study aimed at investigating the relationship between EFL Learners' linguistic, interpersonal and intrapersonal intelligences and their listening comprehension performance.

Defintions of intelligence

Intelligence is a psychological construct connected with learning and which educators base a lot of their professional decisions on. Since the late nineteenth century and early twentieth century, various theories about intelligence have been discussed, and many attempts to define and to measure human intellectual capabilities have been made. The traditional view of intelligence was also challenged, Gardner (1983) suggested an alternative definition, mentioning that intelligence entails the ability to solve problems or fashion products that are of consequence in a particular

setting or community. Instead of focusing on the analysis of test scores, Gardner proposed that numerical expressions of human intelligence are not a full and accurate depiction of people's abilities. In this theory, multiple refers to the relatively autonomous modules of intelligence in mind, and intelligence refers to a bio-psychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture (Blythe & Gardner, 1990).

Gardner (1999) believes that the MI theory lends itself to the identification of the uniqueness of individuals as well. He says that there are many, not just one, different autonomous intelligence capacities that result in many different ways of knowing, understanding, and learning about our world. Gardner defined seven intelligence including verbal-linguistic, mathematical-logical, visual-spatial, bodily-kinesthetic, musical-rhythmic, interpersonal, and intrapersonal. In 1997, Gardner added an eighth intelligence, the naturalist intelligence, and two years later a ninth intelligence, existentialist intelligence (Gardner, 1999). Among other things, this theory proposes that intelligent behavior does not arise from a single unitary quality of the mind, as the 'g'-based theory, but rather that different kinds of intelligence are generated from separate metaphorical pools of mental energy (Gardner, 1983). The mental modules interpreted as autonomous intelligence are: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal, and naturalistic, which operate together and are then shaped and socialized by culture (Gagne & Pere, 2000).

Linguistic intelligence

Linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself both in writing or speaking (Gardner, 1999). Sample skills are remembering information, convincing others to help, and talking about language itself (Yi-an, 2010). According to Gardner (1993), lawyers, public speakers, writers, and poets all possess high levels of linguistic intelligence.

Intrapersonal intelligence

It involves the ability to understand oneself including emotions, desires, strengths, and vulnerabilities and to use such information effectively in regulating one's own life. Sample skills are understanding how one is similar to or different from others, reminding oneself to do something, knowing about oneself as a language learner, and knowing how to handle one's feelings (Yi-an, 2010). The students possessing this intelligence to a high amount enjoy being alone; and they can feel and appreciate their own powers, weaknesses and inner feelings. They like keeping a journal, they study in quiet atmospheres and they are usually self-reflective. Strong ideas on controversial topics often come from these kinds of students (Teele, 2000).

Interpersonal intelligence

It describes the ability to recognize, appreciate and contend with the feelings, beliefs, and intentions of other people, to set relationships with other people and work with them cooperatively. Sample skills are responding effectively to other people, problem solving, and resolving conflict (Yi-an, 2010).

These individuals like leading, organizing, and working best as a part of group. Teachers, clinicians, salespeople, politicians, and religious leaders are among those who use interpersonal intelligence. The individuals who have interpersonal intelligence prefer to be with people, they are friendly, and can get on well with others so they can easily take part in social activities. The ones who can express empathy for others' feelings, react to their moods, and grasp other perspectives usually appear in this group. They like studying in groups and exchanging information with others and thus cooperative and collaborative surroundings are best for their learning (Teele, 2000).

Listening comprehension

The study of listening comprehension processes in second language learning focuses on the role of individual linguistic units (e.g. phonemes, words, grammatical structures) as well as the role of the listener's expectations, the situation and context, background knowledge and the topic. It therefore includes both top-down processing and bottom-up processing. While traditional approaches to language teaching tended to underemphasize the importance of teaching listening comprehension, more recent approaches emphasize the role of listening in building up language competence and suggest that more attention should be paid to teaching listening in the initial stages of second or foreign language learning. Listening comprehension activities typically address a number of listening functions, including recognition (focusing on some aspect of the code itself), orientation (ascertaining essential facts about the text, such as participants, the situation or context, the general topic, the emotional tone, and the genre), comprehension of main ideas, and understanding and recall of details.

Language learning depends on listening because most learners spend more time in listening to the foreign language than in producing it themselves (Celce-Murcia & Olshtain, 2000, p. 102). Listening is the aural medium that gives the way to language acquisition and enables learners to interact in spoken communication. Therefore, students with good listening comprehension skills are better able to participate effectively in class. In addition, students learn to speak, read and write by listening to others (Brown, 2001, p. 20; Lin, 2002, p. 2). Yun Kul (2010) believes, "Listening should be the first and foremost skill to be acquired in learning a new language". Understanding spoken words is prerequisite to speaking, reading, and writing; comprehension should precede reproduction." Chastain (1971) defined the goal of listening comprehension as being able to understand native speech at normal speed in an unstructured situation. Listening is the most frequently used language skill of the four language skills, (Scarcella & Oxford, 1992). Listening is the primary means by which incoming ideas and information are taken in (Devine, 1982). Adults spend in communication activities 45% listening, 30% speaking, 16% reading, and only 9% writing (Rivers & Temperly, 1978).

Statement of the problem

Initially, it should be noted that the researcher's interest in the area of listening comprehension was the main reason for selecting the title of this study. Moreover, nowadays the number of EFL learners is increasing rapidly especially in the Iranian context of ELT. Most of these learners, however, seem not to be capable of communicating in English as a result of listening deficiency.

As Vandergrift (2004) pinpoints, difficulty in learning to listen well can be attributed to the implicit nature of the skill or to the unrealistic assumption that this skill will automatically develop from other skills as a result of a transfer of training. Based on the researcher's personal experience in teaching EFL, in Iran listening comprehension of EFL learners is not at a suitable level in comparison to their other skills. Moreover, as Nunnan (1998) believed listening is the main skill learners need to acquire but this skill seems to have gone rather unexplored in foreign language learning contexts in comparison with other language skills and components. One possible area which might bear relevance to the skill of listening is the concept of intelligence.

Modern theories of intelligence consider intelligence as a dynamic construct which grows during lifetime with exposure to various experiences (Armstrong, Kennedy & Coggins, 2002). In this framework, intelligence is defined as the talent to solve problems or produce products that are considered valuable in one or several cultures (Gardner & Hatch, 1989). More specifically, multiple intelligences as one of the most recent theories of intelligence needs to be investigated in the light of listening comprehension in an attempt to solve the problems associated with the complex nature of listening.

MI seems to be a good solution to listening problems since different people have different characteristics and for each person based on his /her special talent and aptitude, there should be a method or strategy to improve listening skill. Therefore investigating the relationship between Multiple Intelligence and listening comprehension should be considered an important issue in addressing the problems pertaining to the skill of listening.

In an attempt to address the above-mentioned problems the current study aimed at exploring the relationship between EFL Learners' linguistic, interpersonal and intrapersonal intelligences and their listening comprehension performance.

RESEARCH QUESTIONS

To fulfill the objectives of the study, the following research questions were addressed:

RQ1. Is there any significant relationship between EFL learners' linguistic intelligence and their listening comprehension performance?

RQ2. Is there any significant relationship between EFL learners' interpersonal intelligence and their listening comprehension performance?

RQ3. Is there any significant relationship between EFL learners' intrapersonal intelligence and their listening comprehension performance?

RQ4. Can EFL learners' linguistic intelligence significantly predict their listening comprehension?

RQ5. Can EFL learners' interpersonal intelligence significantly predict their listening comprehension?

RQ6. Can EFL learners' intrapersonal intelligence significantly predict their listening comprehension?

METHODOLOGY

Participants

The participants of this study were 80 EFL learners studying at AllameTabatabaee high school of Tehran, Iran in academic year 2015-2016. The participants were male teenagers who were selected based on convenient sampling due to availability reasons. Their age ranged from 16 to 18. The PET listening test was used to measure the participants' listening comprehension performance. So, 30 EFL learners having the same characteristics of the main participants also participated in the study for piloting the PET listening test used in this study. It was piloted to find out if it was suitable for the target participants drawing on item analysis and reliability estimation results. Following that, the listening section of PET and multiple intelligences questionnaire were administered to the 80 participants who were the main sample in this study.

Instrumentation

Two instruments were used in this study to collect the required data a description of which follows:

Preliminary English Test (PET)

The Preliminary English Test is one of the Cambridge English exams used for intermediate level of English. The researcher used two sections of the test i.e. reading and listening to select 80 homogeneous learners. The reading section had 35 questions. The listening section of the exam which was used for this study consisted of four parts. Part 1: pictures with multiple choice questions. There are 7 questions in this part, for each question there are 3 pictures and a short recording. Part 2: longer recording and multiple choice questions. The students listen to a longer recording and answer 6 multiple choice questions. Part 3: complete notes. This is a longer monologue. While students listen they should complete some notes. There are 6 gaps to complete. Part 4: true/false. Students listen to a longer recording and answer 6 True/False questions. They can listen to the audio twice for all parts. Before the main administration of this test, it was piloted to check its reliability and item characteristics.

Multiple Intelligences Test (Questionnaire)

The test included 70 items which measured seven categories of multiple intelligences namely, Linguistic (10 items), Logical-mathematical (10 items), Spatial (10 items), Bodily-kinesthetic (10 items), Musical (10 items), Interpersonal (10 items), and Intrapersonal (10 items). Each is a statement with four possible answers. The students should score the statements: 1 = Mostly Disagree, 2 = Slightly Disagree, 3 = Slightly Agree, 4 = Mostly Agree. As three categories of multiple intelligences (linguistic, interpersonal and intrapersonal) were investigated in this study, only the scores of these items were used. The naturalistic intelligence questions were removed due to practicality concerns. The linguistic category comprises 10 items, so the minimum score in this section is 10 and the maximum is 40. The higher the total score, the more intelligent the person is. The interpersonal and intrapersonal categories include 10 items each with the same scoring system and interpretation as with the linguistic.

Procedure

Pilot Study

PET listening test was initially piloted on 30 participants having similar characteristics to those of the main participants to assure the suitability of the instruments for the purpose of this study. The purpose of the pilot study was ensuring the reliability of the listening test.

In order to administer the listening section of PET an audio CD was played and the participants were asked to choose the correct answers from multiple choices using an answer sheet. The listening test took approximately twenty five minutes to be completed. The score range of the test was between 0-25.

Regarding the fact that the PET is a standard test of proficiency, its validity was assumed to be satisfactory, but to make sure how reliable the use of it is for the purpose of this study, the internal consistency of the test was computed using SPSS. The reliability index for the PET in this study was found to be .814 using Cronbach's Alpha on SPSS 21 for Windows with 30 test takers through a pilot study, which can be considered a high reliability coefficient. Of course, there were some malfunctions items in data analysis which had no effect on reliability of the test, so the researcher decided to ignore them.

Main Study procedure

The main study process was administered to 80 EFL learners from Allame Tabatabaee high school of Tehran. The results of listening section of the PET were used for listening comprehension data. At the same time, the Persian version of The Multiple Intelligences Test (Questionnaire) - based on Howard Gardner's MI Model was administered to the 80 EFL learners. Through this test the learners' linguistic, interpersonal and intrapersonal intelligences were identified and the scores related to these types of intelligences were calculated by the researcher. It should be also noted that the researcher was present while participants were answering the questions in order to provide further explanations if required.

During the process of data collection care was taken to observe the ethical considerations of conducting research. For example the participation of the learners in the research project was voluntary. Moreover, they were informed that the data collected in the study were confidential and used only for research purposes.

RESULTS AND DISCUSSION

In the present study both descriptive and inferential statistics were used to analyze the collected data and investigate the null hypotheses. For variables with normal distribution the parametric Pearson correlation was used, and Spearman formula was utilized for correlating variables with skewed distribution. Further, a regression analysis was conducted for measuring predictability of the independent variable (linguistic IQ) about the dependent variable (listening).

This study tested the following null hypotheses;

H01. There is not any significant relationship between EFL learners' linguistic intelligence and their listening comprehension performance.

H02. There is not any significant relationship between EFL learners' interpersonal intelligence and their listening comprehension performance.

H03. There is not any significant relationship between EFL learners' intrapersonal intelligence and their listening comprehension performance.

H04. EFL learners' linguistic intelligence cannot significantly predict their listening comprehension.

H05. EFL learners' interpersonal intelligence cannot significantly predict their listening comprehension.

H06. EFL learners' intrapersonal intelligence cannot significantly predict their listening comprehension.

Reliability of the PET and the Listening Section of PET

Prior to administering the PET as well as the listening comprehension test from another version of PET, they were piloted on 30 participants and Cronbach's Alpha was run on the scores to assure the reliability of this test. Tables 1 and 2 display the Cronbach's Alpha results for PET and listening section of PET from another version, respectively.

Table 1: Cronbach's Alpha Results for PET

Cronbach's Alpha	N of Items
.72	60

Table 2: Cronbach's Alpha Results for PET Listening section from another version

Cronbach's Alpha	N of Items
.74	25

As Tables 1 and 2 indicate the Cronbach's Alpha indices are both above .70 and thus at a satisfactory level (Brown, 2001). As a result of item analyses, no items turned out to be malfunctioning. Thus, no items were removed.

Checking the Normality Assumption

To test the hypotheses through parametric Pearson correlation, firstly the normality condition had to be checked. The following table shows the results thereof:

Table 3: Descriptive Statistics of the three variables

	N	Mean	Std. Deviation	Skewness		Ratios
	Statistic	Statistic	Statistic	Statistic	Std. Error	
Listening	80	18.0250	4.20962	-.119	.269	-.44
Linguistic	80	28.9000	3.78404	.524	.269	1.94
Interpersonal	80	30.9500	3.96472	-.583	.269	-2.16
Intrapersonal	80	28.8375	3.30494	-.483	.269	-1.79
Valid N (list wise)	80					

As the above table shows, all the skewness ratios fell within the normality range of ± 1.96 except for the interpersonal scores. Therefore, to calculate this variable with the listening scores the non-parametric Spearman formula will be used.

Testing the Null Hypotheses

After assuring the normality assumption, the null hypotheses of the study were tested through employing pertinent statistical tests.

Testing the First Hypothesis

The first hypothesis of the present study was:

H01. There is not any significant relationship between EFL learners' linguistic intelligence and their listening comprehension performance.

To test the first hypothesis, the second condition of linearity of the relationship between listening comprehension and the linguistic intelligence was checked visually through the following graph:

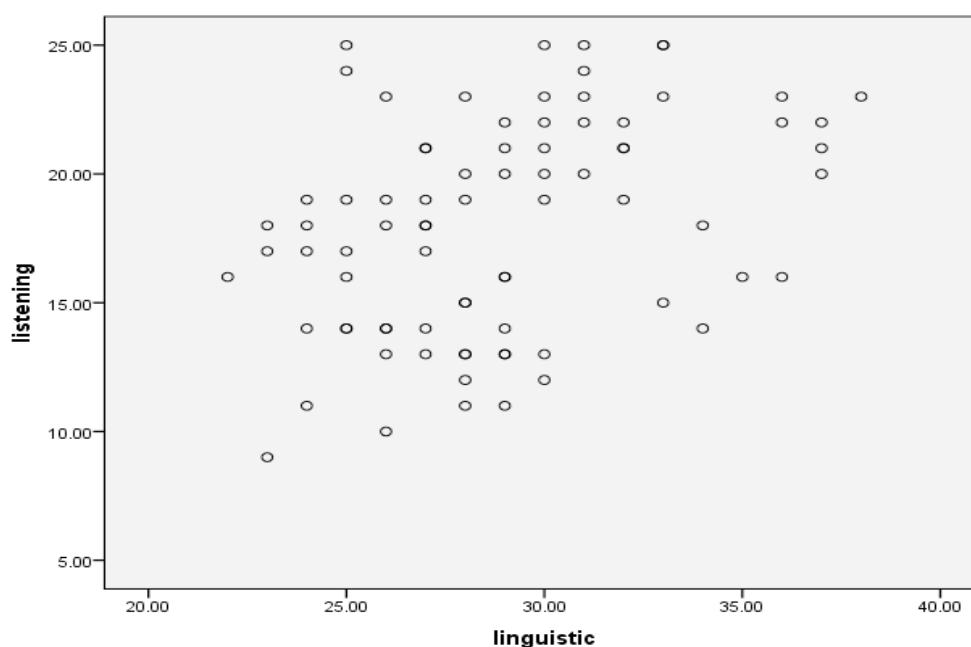


Figure 1: Scatter plot of the relationship between Listening and linguistic

As depicted in the above graph, the point's scatter diagonally forming a line stretched from the bottom left to the top right which ensures its linearity. The dots are not tightly spread around the line though, which is an indication of a weak relationship.

Homoscedasticity of the relationship is almost met as the dots are similarly scattered at the two ends. The following table shows the result of the Pearson correlation calculation between the two variables:

Table 4: Correlations between listening and linguistic IQ

		listening	linguistic
Listening	Pearson Correlation	1	.381**
	Sig. (2-tailed)		.000
	N	80	80
Linguistic	Pearson Correlation	.381**	1
	Sig. (2-tailed)	.000	
	N	80	80

** . Correlation is significant at the 0.01 level (2-tailed).

As displayed in the above table, the relationship turned out to be positive and significant ($r=.381$, $p=.000<.05$). Therefore, the first null hypothesis is rejected. The strength of the relationship came out to be .381 which is a medium size according to Cohen (1988). The coefficient of determination turned out to be .14 (.382), which expressed as percentage, means that only 14 percent of the variation in listening scores could be explained by the variation in linguistic scores.

Testing the Second Hypothesis

The second hypothesis of the present study was:

H02. There is not any significant relationship between EFL learners' interpersonal intelligence and their listening comprehension performance.

To test the second null hypothesis, the linearity of the relationship between listening scores and the interpersonal scores was visually explored through the following graph:

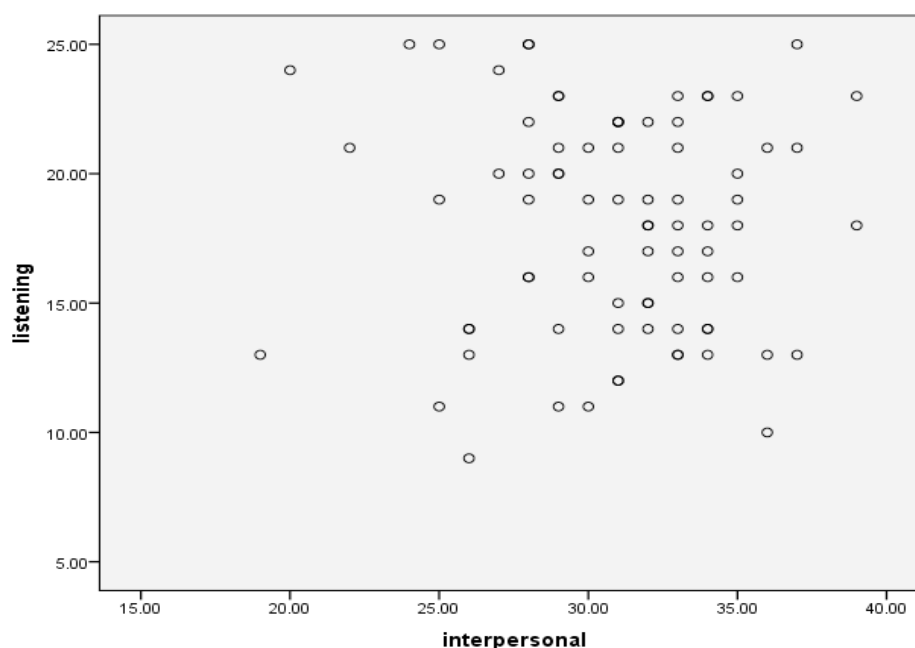


Figure 2: Scatter plot of the relationship between Listening and interpersonal IQ

As illustrated in the above figure, the dots virtually form a linear shape, but the direction is hardly distinguishable, implying a weak relationship. As the distribution normalcy of the interpersonal

scores was violated (shown in table 3 above), the Spearman correlation was used to calculate the relationship between this variable with the listening scores. The following table shows the result:

Table 5: Correlations between listening and interpersonal IQ

			listening	interpersonal
Spearman's rho	Listening	Correlation Coefficient	1.000	-.062
		Sig. (2-tailed)	.	.585
		N	80	80
	Interpersonal	Correlation Coefficient	-.062	1.000
		Sig. (2-tailed)	.585	.
		N	80	80

As the above table depicts, the relationship between listening scores and the interpersonal scores turned out to be negative but non-significant ($r = -.062$, $p = .585 > .05$). Thus, the second null hypothesis failed to be rejected.

Testing the Third Hypothesis

The third null hypothesis of the study was:

H03. There is not any significant relationship between EFL learners' intrapersonal intelligence and their listening comprehension performance.

To test the third hypothesis, the linearity of the relationship between listening scores and the intrapersonal scores was verified through the following graph:

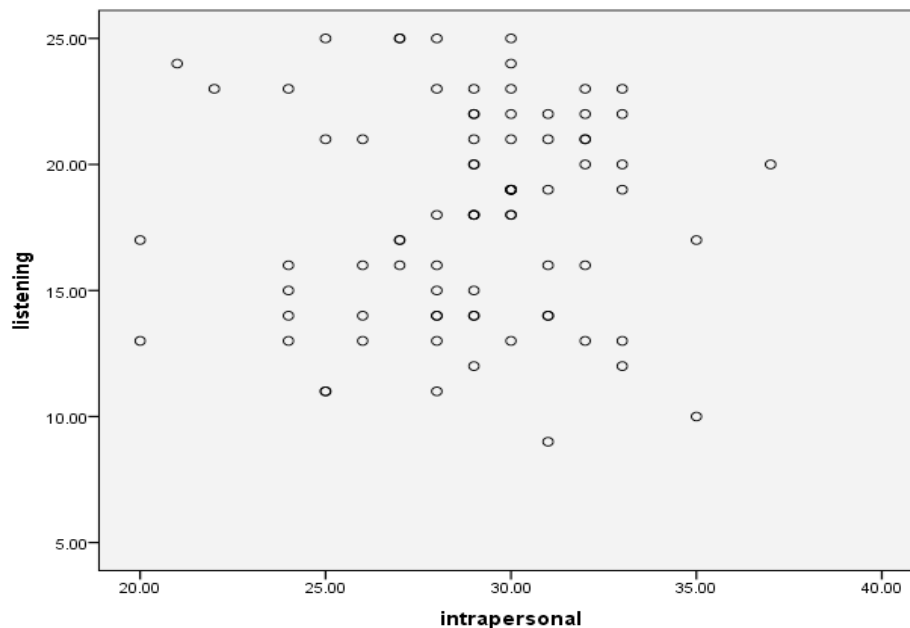


Figure 3: Scatter plot of the relationship between Listening and intrapersonal IQ

As illustrated in the above figure, the dots form a linear shape but are very spread apart around a line, and the direction is hardly recognized, implying a weak relationship. The following table shows the result of Pearson correlation calculation:

Table 6: Correlations between listening and intrapersonal IQ

		listening	intrapersonal
Listening	Pearson Correlation	1	.044
	Sig. (2-tailed)		.699
	N	80	80
Intrapersonal	Pearson Correlation	.044	1
	Sig. (2-tailed)	.699	
	N	80	80

As expected, and shown in the above table, the relationship between listening scores and intrapersonal scores came out to be non-significant and positive ($r=.044$, $p=.699>.05$). Therefore, the third null hypothesis failed to be rejected.

Testing the Fourth Hypothesis

The fourth null hypothesis of the study was:

H04. EFL learners' linguistic intelligence cannot significantly predict their listening comprehension.

To test the fourth null hypothesis, a regression analysis had to be conducted. Firstly, the assumption of outliers was checked through the following table:

Table 7: Residuals Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	25.8108	31.2875	28.9000	1.44094	80
Std. Predicted Value	-2.144	1.657	.000	1.000	80
Standard Error of Predicted Value	.394	.936	.542	.129	80
Adjusted Predicted Value	26.0245	31.5994	28.8984	1.44564	80
Residual	-6.28753	7.79315	.00000	3.49895	80
Std. Residual	-1.786	2.213	.000	.994	80
Stud. Residual	-1.829	2.230	.000	1.005	80
Deleted Residual	-6.59936	7.91528	.00164	3.57912	80
Stud. Deleted Residual	-1.858	2.290	.003	1.017	80
Mahal. Distance	.000	4.596	.987	.982	80
Cook's Distance	.000	.083	.011	.017	80
Centered Leverage Value	.000	.058	.012	.012	80

a. Dependent Variable: linguistic

As shown in the above table, the standardized residual values are minimum -1.78 (less than -3.3) and maximum 2.21 (less than 3.3), which ensures that there were no major outliers.

Normality of the distribution was inspected visually through the following histogram:

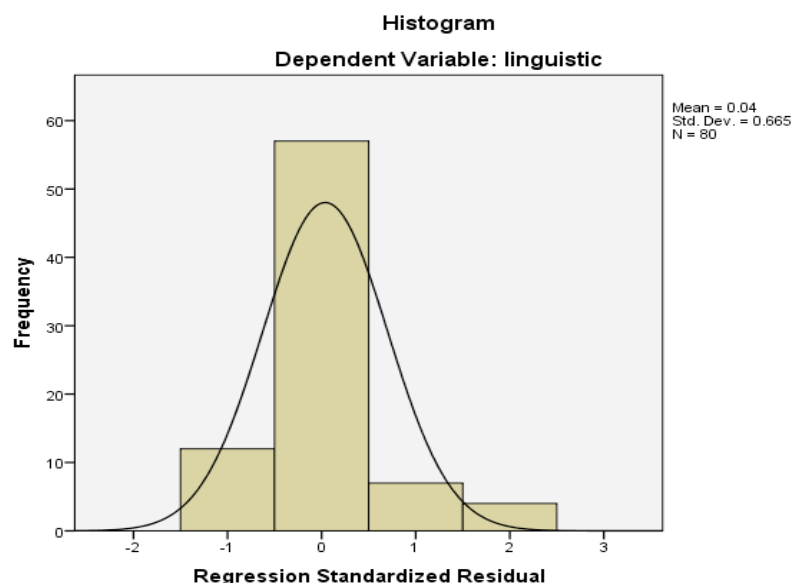


Figure 4: Histogram of the distribution of residuals

As the above figure exhibits, the distribution is normal

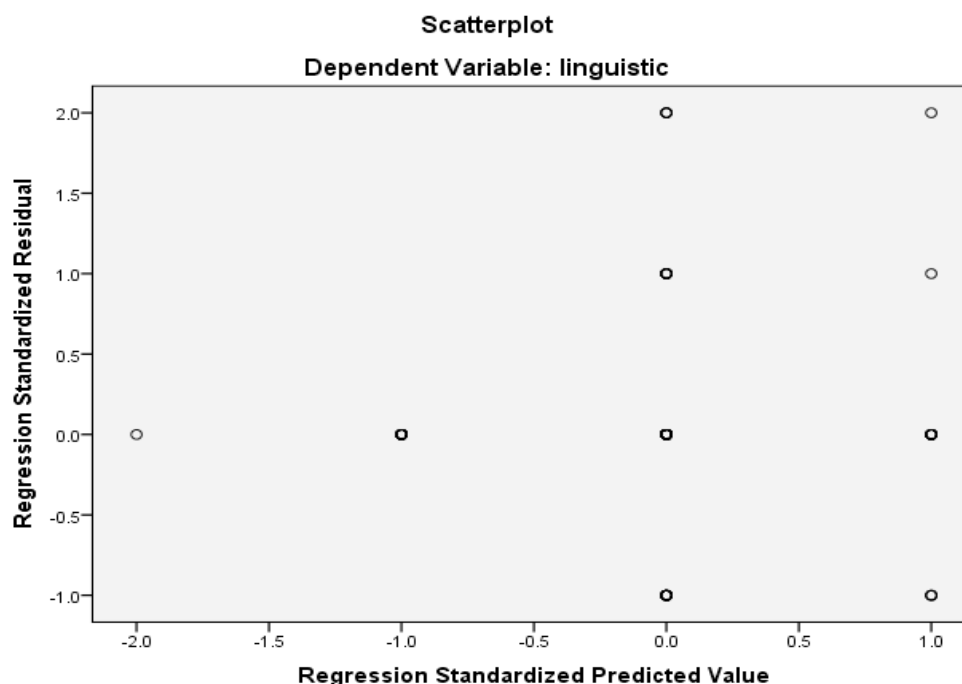


Figure 5: Scatter plot representing the regression standardized predicted value

The above table was generated as part of the regression analysis to check homoscedasticity condition: the variance of the residuals about the predicted DV scores should be the same for all predicted scores. As the scores are mostly clustered around the center and do not form a U-shape it is concluded that this condition is met.

The following tables were produced as the output of the regression analysis:

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.381 ^a	.145	.134	3.52131

The above table shows that R Square was .145. This means that 14.5 percent of the variance in the dependent variable (listening) is explained by the independent variable (linguistic intelligence). The following table shows if this amount is significant.

Table 9: ANOVAs

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	164.029	1	164.029	13.229	.000 ^b
	Residual	967.171	78	12.400		
	Total	1131.200	79			

The above table depicts that the model was significant ($F=13.22$, $p=.000<.05$). The following table shows the predictability of the independent variable about the dependent variable:

Table 10: Regression table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	22.730	1.741		13.052	.000	19.263	26.197					
	listening	.342	.094	.381	3.637	.000	.155	.530	.381	.381	.381	1.000	1.000

a. Dependent Variable: linguistic

As displayed in the above table, the predictability of the independent variable about the dependent variable turned out to be significant ($B=.381$, $p=.000<.05$). Thus, the fourth hypothesis was rejected, implying that EFL learners' linguistic intelligence can significantly predict their listening comprehension ability.

Testing the Fifth and Sixth Hypotheses

The fifth and sixth hypotheses fail to be rejected on the grounds that listening comprehension and interpersonal and intrapersonal intelligences of the learners were not significantly correlated. Therefore, predictability of the types of intelligences about listening comprehension does not make sense and regression analyses are not legitimate to run in such a case.

Discussion

The present study sought to find out the relationship between multiple intelligences and listening comprehension among Iranian EFL learners. Statistical evidence proved that listening comprehension and the linguistic intelligence had a positive and significant relationship. However, the relationship between listening scores and the interpersonal intelligence turned out to be negative but non-significant. Moreover, the relationship between listening scores and intrapersonal scores came out to be non-significant and positive. With respect to predictability power of various components of intelligence in predicting foreign language listening

comprehension of EFL learners, it was revealed that linguistic intelligence could significantly predict the listening comprehension performance of Iranian foreign language learners while the interpersonal and intrapersonal intelligences failed to predict listening comprehension due to the lack of a significant relationship.

The significant relationship between linguistic intelligence and listening comprehension performance was not far from expectation. Linguistic intelligence involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself both in writing or speaking (Gardner, 1999). This sensitivity to both spoken and written language can explain for the significant relationship between linguistic intelligence and listening comprehension. Studies in listening comprehension in children have also shown that verbal intelligence is a predictor of listening comprehension (Florit, Roch, & Levorato, 2011, 2013, 2014; Thomas & Levine, 1996).

There is also the possibility that people with high levels of linguistic intelligence are better strategy users while listening. According to Gardner (1993), lawyers, public speakers, writers, and poets all possess high levels of linguistic intelligence. It can be assumed that such people could be great strategy users in the area of language use. Tahriri and Divsar (2011) explored EFL learners' perceived use of language learning strategies across various intelligence types. The findings of their study revealed that intelligence did not significantly affect the overall strategy use of the participants. All types of intelligence fell within the 'medium' user of language learning strategies. However, participants of verbal linguistic type were found to be the highest strategy users and visual-spatial students were the lowest strategy users overall. In addition, participants of verbal linguistic type were found to be higher users of cognitive strategies. Therefore, making a comparison between the findings of their study and the present study indicate that linguistic intelligence can be related to language learning strategy use and consequently better performance in language learning in general and listening comprehension in particular.

Moreover, according to Gardner (1993) one of the components of linguistic intelligence is phonology or sounds of language. This provides ample explanation for the finding of the study that linguist intelligence was significantly correlated with and predicted listening performance of foreign language learners. After all, in all models of listening skill the role of phonology has not been neglected. For instance, in bottom up model of listening comprehension the first step is taking in raw speech and holding a phonological representation of it in working memory followed by immediately attempting to organize the phonological representation into constituents, identifying their content and function (Clark & Clark, 1977). Thus, a plausible link can be inferred between linguist intelligence and foreign language learning and as listening comprehension is part of whole language ability this link can also be assumed between linguistic intelligence and listening comprehension performance. In Gardner's scheme, the verbal-linguistic intelligence does not make direct reference to second language learning. However, it appears to be a justifiable connection as people with a high verbal linguistic intelligence are those who prefer to think in words (Nolen, 2003) and that have the capacity to use language intelligently

both in orally and in written modes (Christison & Kennedy, 1999). Also people with high linguistic intelligence have a high level of sensitivity to sounds or phonology, sentence structure or syntax, meaning or semantics and illocutionary force or pragmatics (Armstrong, 2009).

The findings of this study are in line with Mahdavy's (2008) study in which he investigated the role of MI in listening proficiency. The study contained 151 male and female students studying English language at a university in Iran. The researcher employed three scales namely, the TOEFL listening test, the IELTS listening test, and the Persian version of multiple intelligences questionnaire. The results indicated that regardless of the differences between the tests (IELTS & TOEFL), only verbal-linguistic intelligence had a significant influence on the students' listening proficiency. It was also revealed that verbal-linguistic intelligence was a good predictor of the scores of the listening section in both tests. On the other hand, no significant relationship was found between interpersonal intelligence and listening performance and also between intrapersonal intelligence and listening performance among Iranian foreign language learners. With respect to interpersonal intelligence, it can be said that listening comprehension may not be directly related to foreign language listening performance. It describes the ability to recognize, appreciate and contend with the feelings, beliefs, and intentions of other people, to set relationships with other people and work with them cooperatively (Yi-an, 2010). Regarding intrapersonal intelligence, the same argument can be presented. Intrapersonal intelligence involves the ability to understand oneself including emotions, desires, strengths, and vulnerabilities and to use such information effectively in regulating one's own life (Yi-an, 2010). Based on the definitions mentioned above, interpersonal and intrapersonal intelligences may not be directly related to foreign language listening comprehension. , as listening comprehension is unlikely to involve feelings, beliefs and intentions of other people as well as the listener him/herself

However, no direct conclusion should be drawn regarding the lack of any significant relationship between interpersonal intelligence and listening performance and also between intrapersonal intelligence and listening performance among Iranian foreign language learners. Results of previous studies do not show conclusive results regarding the relationship between multiple intelligences and language proficiency as a whole.

CONCLUSIONS

The present research came up with the conclusion that EFL learners' listening comprehension was significantly in positive relationship with their linguistic intelligence. Also, it was revealed that their listening comprehension and interpersonal and intrapersonal intelligences were not significantly correlated. The process of learning, including second language learning, is believed to be deeply influenced by learners' internal factors (Lightbown & Spada, 2013; O' Donnell, Reeve, & Smith, 2012). Based on the multifaceted nature of human behaviors and capacities, these internal factors are comprised of a myriad of factors, each dealing with one specific feature. Among these internal factors, multiple intelligence seems to be the one whose promotion and development seem to have a stable position in different educational settings. The results of the current study further remind us of the fact that different learners are equipped with different

potentials for learning and all these potentials must be acknowledged and accommodated in language learning classes.

One major issue which should be highlighted is that although the sample size of this study was adequately large, the magnitudes of the relationships raise doubts about the meaningfulness of the relationships and the reliability of the findings. Therefore, it seems reasonable to argue that further studies are required in order to reduce this uncertainty and provide a more valid understanding of the link between multiple intelligences and listening comprehension performance in EFL contexts.

Pedagogical Implications

Since the linguistic intelligence was the best predictor of listening comprehension performance, the main implication of the findings of this study seems to be the importance of encouraging linguistic intelligence among EFL learners. Teachers should be given enough awareness as each type of multiple intelligences has a matching preferred method of instruction; however, this is not always appropriate to focus on in a limited number of multiple intelligences.

It is of high importance that teachers be encouraged to address all different intelligence types which will promote the language learning process by introducing a wide range of activities to the classroom practice.

EFL teachers should promote the use of different multiple intelligences among language learners through hands-on activities, in-class projects, carrying out practical tasks, and other similar activities. EFL teachers can also explicitly familiarize the learners with different intelligence types, what they mean, and how they assist learning. However, this calls for possessing a reasonable degree of familiarity with different intelligence types on the side of the teacher.

Limitations

The limitations imposed to the present study were as follows:

- 1) Since the researcher did not have access to female participants, the present study was carried out only on male participants. Thus, the results may not be generalized to female participants.
- 2) The researcher had access to only intermediate level learners. Therefore, the findings cannot be applied to other proficiency levels.
- 3) Only EFL learners aged 16-18 were the participants of this study, because the MI questionnaire is designed so that adults over 16 can complete all questions. So, the findings may not be generalized to other age groups.

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INVESTIGATING CALL AND ITS EFFECT ON THE MECHANICS OF WRITING OF IRANIAN EFL LEARNERS

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ABSTRACT

This study aims to investigate the application of computer technology (CALL henceforth) on mechanics of writing. To this end, a quasi-experimental design and quantitative method was adopted. Oxford Placement Test (OPT), pretest and posttest in form of paragraph writing and adopted editing checklist were used to collect data from 50 homogenous intermediate EFL participants selected from a large sample at Islamic Azad University, Marivan Branch. The data were analyzed descriptively and inferentially using ANCOVA to test the CALL effectiveness on EFL learners' mechanics of writing. Twenty five participants in the experimental group in ten sessions used CALL package developed by the researchers contained audio, video, captured picture, and script of a short film of related topics, but twenty five participants in control group just used the traditional package included a writing textbook. The results of the study revealed that there was a significant difference between the students' mechanics of writing scores mean in the experimental group compared to students in control group. The study suggests that computer applied in mechanics of writing instruction should be given much more consideration to improve the learners' writing skill in EFL settings and motivate both teachers and learners while working on mechanics of writing skill.

KEYWORDS: CALL, EFL Learners, Mechanics of Writing, English Learning

INTRODUCTION

Writing as a channel of expressing and communication, permits learners to exchange different attitudes and ideas. Writing in English is the vital skill especially for learners in EFL context. It is becoming inevitable part in schools and universities teaching language instruction as a measure for academic success Jahin (2012). According to Nunan (1999), composing a relevant, fluent, and extended piece of writing is one of the most problematic thing to

accomplish in language and also the skill which most of native speakers are not able to master, there is no doubt for the learners in EFL context this challenge is doubled especially when for those go on to a university and study in a language that is not their own. Mechanics is the most common mechanical problems that face college EFL learners.

Mechanics of writing is a writing sub-skill. Norman Singer, McPherson, and Bradburn (2005) define it as the sub-skill that includes such things as punctuation, spelling, abbreviations, acronyms, numbers and so on. Danielson (2000) regards mechanics of writing to be "standard writing conventions such as spelling, punctuation, capitalization, and sentence structure skills. 'There have been used many strategies to improve mechanics of writing. Of those strategies, CALL has recently been utilized in the area of teaching and learning writing sub-skills including mechanics of writing. Integrating technology into writing process may have the potential to make a greater effect than any other strategies. Computer-Assistant Language Learning is defined as "the study of applications of the computer in language learning and teaching" (Levy 1997).

CALL in this study includes using combination of four aspects of CALL, that is, audio, video, image, and text to teach learners the mechanics of writing in accordance with natural way of learning language. Mechanics of writing in this study means the right, standard usage of four categories of writing conventions: punctuation marks, capitalization, numbers and spelling. As much of the earlier studies have focused on the efficacy of CALL, studies on the impact of CALL on the students' mechanics of writing achievement seems inadequate. Hence, to fill the gap in this area the purpose of this study is to investigate the effect of combination of four aspects of CALL to show that how EFL writers can improve their mechanics of writing includes punctuation, capitalization, spelling and using numbers.

REVIEW OF THE LITERATURE

According Warschauer and Healey (1998) using computers in language teaching started in 1960. History of CALL divided in three stages: 1) Behavioristic CALL started in 1960s to 1970s which was based on behaviorist theory and it was recognized by language drills repetition, 2) Communicative CALL began in 1970s to 1980s in which the main concern was communicative teaching method, producing original utterances not through the prefabricated language repetition rather via those process that created in the learners' mind such as discovery, expression and development process (Ahmad et al., 1985), and 3) The most recent progress in CALL field was integrative CALL which was able to combine a different media such as text, sound, pictures, video, and animation, consequently, a stimulating language learning environment can be created to target four skill.

Moreover, Mudge (1999) suggested four phases for history of CALL. The first stage was in 1950s that some foreign language centers used media such as phonograph, broadcast, movie, tape recorder in foreign language teaching. Audio and video were considered as significant revolution in both teaching and learning of English as foreign language. In next decades 70s and 80s, audio and video improved with progression of other electronic devices like Electronic taping, slide projectors, videocassette players, and language labs. In the early of 1990s, because of unbelievable advancement in computer and digital technology, foreign-language instruction integrated with these modern devices. Finally, by the beginning of the 1990s, the internet as strong tool appeared to provide elements such as lightening the work-

load, a worldwide tool of obtaining information and communicate with other people without considering the time and place.

Researchers have investigated the possibilities and the advantages of Computer Assisted Language Learning in relation to writing mechanics. Nassar (2004) investigated the impact of Multiple Intelligences Theory based activities on improving primary students' English spelling. The results of this study indicate that the proposed Multiple Intelligence activities positively affect the learners' spelling. The activities used are very beneficial to the designing of the spelling section of the current program CD. In addition, Christopher, Ewald and Giangrasso (2000) administered a workshop encompasses such a variety of mini lessons as, transitions and editing, supporting details, word choice, sentence structure, punctuation, capitalization. Results relate to the fact that the elements of Writer's Workshop are helpful in progressing of writing organization and mechanics. Moreover, Nyamasyo (1994) investigated types of spelling based on corpus approach to describe errors. The results indicate that students' first language and also the English sound system differences are the main reason to make spelling errors. The study suggests the spelling teaching and the considering the contrastive analysis. Finally, Tajzadeh and et al (2013) in a research explored the effect of visual presentation on Iranian Intermediate EFL learner's writing ability.

RESEARCH QUESTION

The study seeks to answer the following questions:

Does CALL make a significant difference in EFL learners' mechanics of writing?

METODOLOGY

Participants

The study was done in Marivan Azad University in Iran. 20 males and 30 females, aged from 20 to 25, were chosen randomly from a larger sample of 100 EFL learners majoring in language learning and applied linguistics. The participants' native language were Persian and Kurdish. In order to determine the participants' level of proficiency, Oxford Placement Test (Allen, 2004) was administered. Based on these test guidelines those participants who scored 120-150 out of 200 (total score) were determined as intermediate-level participants and included in study. Next, to homogenize subjects, a test consisted of writing a paragraph for checking their writing ability was administered by researcher. Finally based on the two test data, participants were divided into two groups: experimental group and control group.

Instruments

Oxford placement test (OPT)

The researcher administered OPT to determine those learners who were in intermediate level of proficiency. This test includes two parts: 100 multiple-choice grammar items and 100 multiple-choice listening which each one has three choices. Tahriri and Yamani (2010) stated that administering listening section consisted of applying knowledge of sound and writing system in accordance with speed of native speaker competence and for grammar section the participants' grammatical knowledge in contextualized items was examined.

Writing paragraph

The researcher pursued three goals by using paragraph writing as an instrument: firstly, after administering OPT the sample wrote a paragraph to ensure their homogeneity in terms of

writing ability, secondly, the participants in both control and experimental groups wrote a paragraph about the specific given topics as a pre-test to check differences which were researcher aimed to prove after treatment, thirdly, all participants in both experimental and control groups took part in writing paragraph session as a post-test to compare obtained results to recognize whether the treatment was effective in improving writing skill or not.

Adopted editing checklist scales

The researcher adopted a checklist (see Appendix B) included writing mechanics scales checklist based on following checklists which are highly valid (Cumming, Kantor & Powers, 2001):

- Text Features to Which ESL/EFL Instructors/Assessors Attended While Rating TOEFL Essays (2000).
- Hoyt & Therriault (2008) • Scholastic • Mastering the Mechanics: Grades 2–3.
- Writing Well: Write, Revise, Succeed! Libby Wilson and published by New Readers Press in 2006.

Data collection procedure

For collecting the data, in this study two tests were administered, that is, Oxford Placement Test (OPT) and paragraph writing. The first test was administered as pre-test to determine the participants level of proficiency but the paragraph writing as both pre-test and post-test was administered to check participants writing ability. Finally, the researcher provided a checklist which included four categories of writing mechanics: punctuation, capitalization, spelling and using numbers. The researcher collected the data by scoring participants' writing paragraph according to categories in checklist.

Data analysis procedure

For analyzing the data in present study, first the normality of collected data were calculated then analyzed in two ways: descriptive and inferential statistics. By descriptive statistics a set of mathematical procedures described the main features of a collected data quantitatively and the results were reported by Tables and Figures and the inferential statistics used for analyzing the samples' data to generalize from a sample to a population beyond actual observations and also generalize from a sample to a population. The Analysis of covariance in this research was ANCOVA and it was done by computer assisted program (SPSS) software.

RESULTS AND DISCUSSION

Descriptive statistics

Using computer can affect EFL learners' writing mechanics. To investigate the effectiveness of the CALL on students' writing mechanics, the participants' scores of writing a paragraph in both pre-test and post-test were compared. As Table 1 shows the descriptive findings of students' scores in both pre-test and post-test. The control group participants' mean scores in writing mechanic were 11.36 and 11.92 in pre-test and post-test respectively. It shows that the control group did not have a significant improvement in post-test in compared to pre-test, but the mean of experimental group after treatment shows the meaningful improvement so that their mean increased from 11.44 in pre-test to 15.72 in post-test.

Table 1: The mean of pre-test and post-test score in writing mechanics

Groups	Pre test	Post test	Number
Control	11.36	11.92	25
Experimental	11.44	15.72	25

The results also can be observed in Figure 1 which shows the mean scores of both control group and experimental group in pre-test and post-test of writing mechanics.

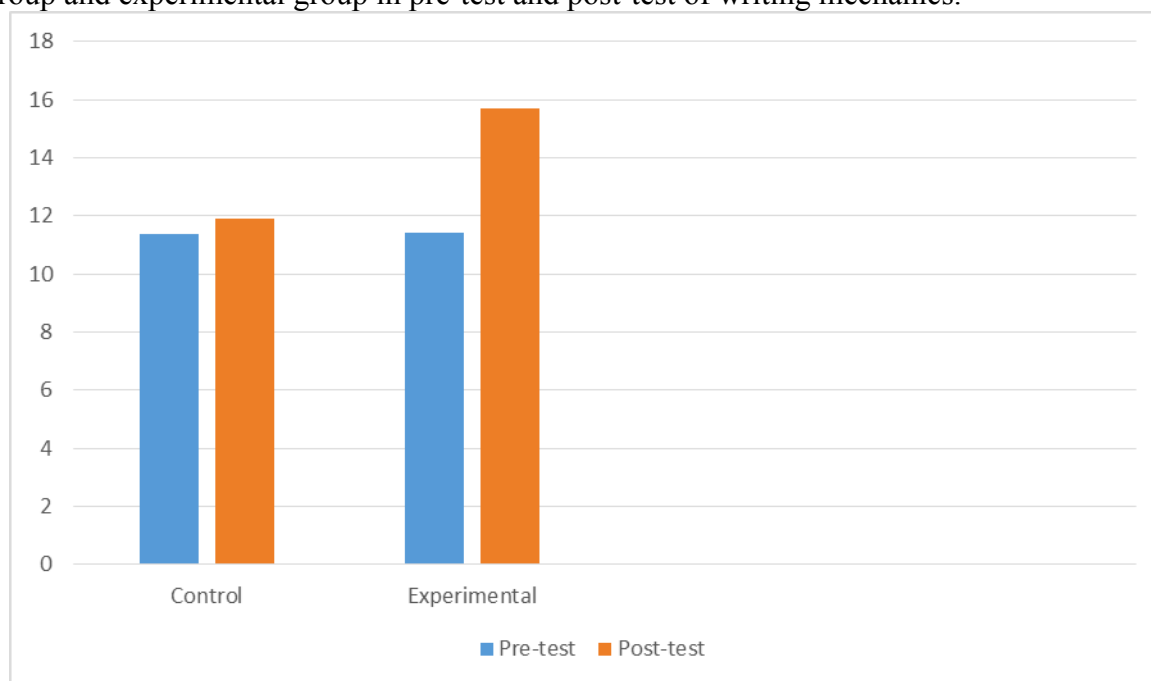


Figure 1: the mean scores of post-test and pre-test in writing mechanics

Inferential Statistics

Using computer can affect EFL learners' writing mechanics. To test this hypothesis, the generalized liner model of covariance analysis and repeated measures in SPSS 22 software were used by the researcher. Table 2 shows the descriptive statistics of both groups in pre-test and post-test which indicates the experimental group performed better in writing mechanics than control group, but there was no significant difference in both groups' pre-test results. The standard deviation of both control and experimental group was the same and this shows the homogeneity of the two groups at the outset of the study, namely students using computer in writing mechanics.

Table 2: Descriptive statistics of pre-test and post-test in mechanics of writing

Test Time	Group	Mean	Standard Deviation	Number
Pretest	Control	11.36	1.29	25
	Experimental	11.44	1.16	25
Posttest	Control	11.92	1.15	25
	Experimental	15.72	1.36	25

Table (3) shows the ANCOVA for computer effectiveness on writing mechanics. As it can be seen the degrees of freedom was 1 and sig was 0.001, so by one per cent error probability the learners' total scores in experimental group in post-test was higher than learners' post-test scores in control group. Simply put, the hypothesis of the research was verified, i.e., CALL

had an influential impact upon EFL learners' writing mechanics enhancement. In addition, Eta factor was 0.791 which shows the high effect of using computer on writing mechanics, so by one per cent error probability the null hypothesis was justifiably rejected.

Table 3: Covariance of computer effect on students' writing mechanics scores

Source of Variation	Sum of square	Df	Sums of Squares	F	Sig	Eta square
Test Factors	146.32	1	146.32	182.21	0.001	0.791
Groups*Test Factors	86.49	1	86.49	107.55	0.001	0.691

Figure (2) shows the effectiveness of using computer in students' writing mechanics. As seen in Figure, the total scores of control group who did not use the computer are similar in both pre-test and post-test, but experimental group scores who used computer in writing mechanics in post-test in compare to their low scores in pretest increased significantly. Therefore, it can be concluded that applying computer improved students' writing mechanics significantly and the Figure also confirms the table statistics.

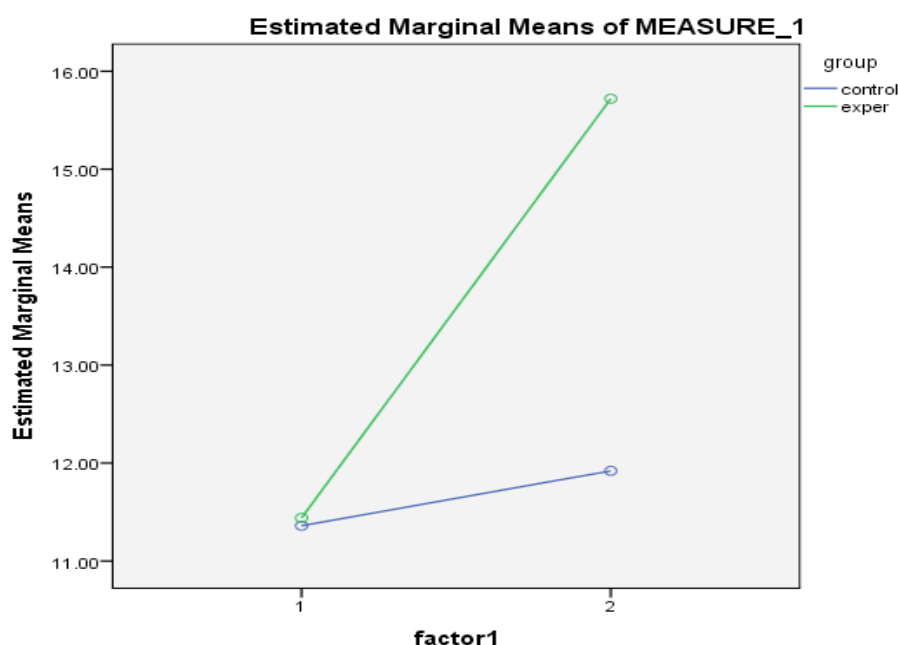


Figure 2: comparing under study groups' mean scores in writing mechanic post-test

According to the analyzed data, the results of the study showed that the participants in experimental group scored better marks in the writing than those who were in the control group. The results of this study is in line with many studies which have proved the effectiveness the CALL on mechanics of writing such as Greenfield (2003) who stated that learners enjoy the CALL class. Gosusseva (1998) reported that students had positive attitude toward the CALL and improved their writing skill. The finding of this research seemed to be compatible with the results of Adair-Hauck, Willingham-McLain, and Youngs (1999) which concluded that it was feasible and in fact desirable to integrate computer-based instruction into learning and teaching language.

In addition, the results of this study confirmed Shahramiri and Gorjian (2013) study that focused on podcast transcription in improving writing accuracy in which the current research aimed to investigate and also findings of this research can be compared to Snyder (1993) study that claimed Word Processor can improve learners' writing in revision, making mistakes and correcting elements like spelling and grammar.

Therefore, the null hypothesis was justifiably rejected. The researcher interpreted that CALL application can be helpful and has had desirable effect on developing writing proficiency more specifically mechanics of writing. As it was demonstrated at the outset of the study two groups did not perform significantly different; but they scored differently on the post-test.

CONCLUSION

This study aimed to investigate the effect of CALL to show that how EFL writers can improve mechanic elements includes punctuation, capitalization, spelling and using numbers in their writings. According to analyzed data this study revealed some findings: a) participants in experimental group who had more exposure to the target language wrote paragraphs in which they used writing mechanics correctly, b) CALL can provide learners with many options to practice and extended their learning to outside of the class by using their on technology at home, c) learners improved their writing mechanics by following the package presentation which was designed according the natural order of skills, finally, using computer in material presentation changes the traditional role of teacher, that is, facilitator.

It can be concluded that CALL applying in writing process assisted the subjects in treatment group to achieve the predetermined goal. As Sergeant (2007) states that using computers in mechanics of writing courses probably be more enjoyable and interesting than traditional writing courses in which learners use pen and paper. Moreover, learners as writer have more enthusiasm to be involved in writing process, produce readable texts and enhance their proficiency in mechanics of writing. In addition, it can be concluded that CALL provided learners better authentic materials which are revealed in different formats, and finally by CALL both teachers and learners can have more control over the amount, time and speed of presented materials as well.

This study can have some implication for learners to be more autounmous in producing readable paragraphs and also by incorporating CALL in writing learners become generative writers because they can have more ideas to write abouts them. Finally, by CALL learners can use their eyes and ears to get authentic materials as input to produce real text as output in the next time. This study can have some implication for teachers as well. They can use collaborative and interactive strategies for teaching writing skill, change their methodology, provide enjoyable invironment, be as a partner for learners and as a facilitators they can use adversity in presenting materials and remove psychological barriers in writing process which may some learners face them. In higher level this study helps curriculum developer to enrich textbooks with meaningful and authentic content, the course designers also can include useful course programs which motivate both learners and teachers to work together as a team on common project.

Limitations of the study

There will be number of limitation in conducting this study:

- The setting of the current study was Marivan Azad university in iran, maby changing the setting caused different results.
- Measuring writing skill in EFL context is problematic because different researchers apply different procedures and strategies to assess writings.
- The data which will be gathered are self-reported data, so the participants' report may be in contradiction with the reality.
- Conducting this study involved skillfull teachers and learners in using educational technology such as computer.

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APPENDIX A

Table 1: Educational Package Using Computer in Writing Achievement

Treatment Sessions	The Audio-Visual Presented Topic in Treatment Sessions	Writing Skill Instruction
First Session	The active office	<i>The importance of the writing mechanics in writing skill</i>
Second Session	Airport security	Writing: marking
Third Session	Armchair tourism	Writing: spelling
Fourth Session	Battle of the oranges	Writing: capitalization
Fifth Session	Bridge of love	Writing: numbers
Sixth Session	Driving change in west bank	<i>The importance of the writinggrammatical points in writing skill</i>
Seventh Session	Many kinds of intelligence	Subject-verb agreement
Eighth Session	Robot chef	Noun-pronoun agreement
Ninth Session	Robot security guard	Noun-adjective order
Tenth Session	Stone from the sky	Verb tense

APPENDIX B

Table 2: The criterion for scoring participant's marks in writing mechanics

Participants' writing paragraph samples	Spelling	Punctuation	capitalization	Numbers
1				
2				
3				
4				

CONTRASTIVE ANALYSIS OF THE PLURALITY MARKING MECHANISMS OF ENGLISH AND PERSIAN

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ABSTRACT

The present study was an attempt to compare and contrast plurality marking mechanisms between English and Persian. The findings of the study reveal that the mechanisms are different from each other in that Persian makes more use of verb inflection than English to indicate plurality. In Persian the plurality is indicated by both verb inflection and suffixation while in English just the noun is pluralized with the verb almost remains unmodified. Persian also makes a distinction between animate and inanimate nouns in terms of the appropriate suffixation to take place. However, English doesn't make any distinction between animate and inanimate nouns while applying plurality marking mechanisms. The differences between languages are deemed to be the main cause of difficulty in the process of foreign or second language learning. By focusing on those problematic areas, teachers can enhance learning and eradicate learners' mistakes. Overall, the findings reported here can add to our knowledge of some structural differences between Persian and English and they may further be used by language teachers and textbook writers alike to understand how differences in plurality marking mechanisms may cause problems for Persian EFL learners.

KEYWORDS: contrastive analysis, English and Persian, plurality marking mechanism.

INTRODUCTION

Contrastive analysis of two languages, which deals with the similarities and differences in terms of linguistic structures, has been studied since the 1940s. Languages are certainly different in regard to the mechanisms they employ to express their syntactic and semantic functions and properties. English and Persian are not exceptions to this universal rule. Persian is a southwestern Iranian language within the Indo-Iranian branch of Indo-European languages and English is a West Germanic language.

Revising the literature and annals of CA, there are plenty of studies contrasting various aspects of languages with English; and there are esteemed researchers who have made efforts to compare and contrast English and Persian (Yarmohammadi, 2002). In one of his studies, he has thoroughly contrasted both languages in terms of phonology, vocabulary and grammar but no attention was paid to bound morphemes. He compared, juxtaposed and predicted some difficulties for Persian learners of English.

In a different study Fallahi (1991) compared and contrasted simple past and past progressive tenses in English and Persian and Hayati (1997) studied the differences between English and Persian stress patterns. Fatemi and Ziaei (2012) carried out an analysis based on out-of context translation of Persian and English and its probable problems in EFL classrooms. However, a contrastive study which deals with plurality marking mechanism with a special attention on the type of the nouns concerned still has its benefits.

Plurality is an issue which is dealt with in the very first lessons of every EFL/ESL coursebook. Yet many Persian EFL learners continue to make errors in this seemingly easy grammatical structure up to higher levels. The reason for the over-occurrence of this error may lie in the very nature of these two languages regarding how they pluralize and the changes they apply to the elements of the sentence to indicate plurality. This article aims to shed light on the differences between English and Persian in terms of the plurality marking mechanisms employed in the two languages. The investigator begins with a brief review of the literature and then explains the plurality marking mechanism differences.

LITERATURE REVIEW

Contrastive analysis (CA) is a concept which was introduced by Charles Fries for the first time in 1952 and later was described in more details in *Linguistics across Cultures* by Robert Lado in 1957. CA is a subfield of applied linguistics which mainly aims to explore and provide a linguistic description of the structure of two languages with pedagogical implications as its focal practical objective. It is assumed that detailed descriptive comparisons can be employed in language teaching and learning as well as translation studies. Such descriptive comparisons are capable of pinpointing the difficulties language learners may have in the process of foreign or second language learning. As Lado (1957) has pointed out, it is assumed that the student who comes in contact with a foreign language will find the elements of the target language which are different from his/her mother tongue's very difficult. Thus, the findings of contrastive studies can be utilized in developing pedagogical materials with the most effective materials will be those which have been prepared based on a scientific description of the language to be learned and have carefully been compared with a parallel description of the learners' native language (Nickel, 1971). By detailed analysis and comparison of the structures of the two languages, it is possible to predict where the L2 learner will most probably make errors.

Yarmohammadi and Rashidi (2009) identified two types of contrastive studies. *Theoretical contrastive grammars* which are based on a special theoretical frame to provide explanations to develop insights into contrastive problems and *pedagogical contrastive studies* which are based on the findings of theoretical contrastive studies to provide a frame to compare a pair of languages. The latter provides information about the target language, identifies similarities and differences between the two linguistic systems, evaluates the suitability of contrastive analysis, predicts some major learning difficulties, and establishes the hierarchy of difficulties to facilitate teaching, learning, and translation.

Contrastive Analysis Hypothesis

Contrastive analysis hypothesis (CAH) has its origins in behavioristic and structuralist approaches to language studies and has been described as having two versions. The strong version attributes all L2 errors to the interference caused by the learners' L1. Since empirical research (James, 1980; Fisiak, 1981; Broselow, 1984; Sajavaara, 1984; Bot, 1986; Odlin, 1989; Vorman, 1990; Leather & James, 1991; Hayati, 1995; cited in Hayati, 1997) showed many of L2 errors are not predictable by CAH and L2 learners make errors which are not existent in their L1 either, later it lost its popularity but still maintained a useful tool in partial prediction and explanation of L2 errors. Wardhaugh (1970) states that, the strong version at least demands of linguists that they have available a set of linguistic universals formulated within a comprehensive linguistic theory which deals adequately with syntax, semantics, and phonology. He also maintains that weak version sees linguistic difficulties as posteriori rather than a predicted priori. It (the weak version) can be used to understand the sources of L2 errors by employing and thoroughly contrasting a general knowledge of both L1 and L2.

So it is still claimed that when the L1 and L2 enjoy having identical or similar structures few L2 problems will be anticipated and in case the L1 and L2 differ considerably in terms of their structures, more L2 errors will be predictable. As Hayati (1997) has pointed out CAH is based on two fundamental assumptions: first, it is believed that the degree of difference between the two languages under analysis corresponds to the degree of difficulty. Second, the degree of similarity is advocated to correspond to the degree of similarity. Whatever the justification might be behind L2 errors, it is vital for language learners to overcome their errors in order to fully master the target language and achieve a working level for successful communication. The learner is expected to change his/her L1 linguistic behavior and adapt to L2 linguistic behavior. In this regard, the benefits of CAH are twofold. The results of CA studies have predictive power to pinpoint the potential errors that learners of foreign languages may make in the process of learning and these results can also be used in developing teaching materials which can help teachers and learners to overcome those problems.

Plurality

Languages may make nouns plural by various types of inflection; they may add suffixes such as the English -(e)s or ablaut like the plural *geese* from *goose*. It is also possible that nouns don't get marked for plurality as in *sheep*. Some languages such as Latin and Russian may have several plural forms for various cases. Exercising plurality on nouns may also affect other elements in the sentence such as verbs, or it may even be the case where nouns don't get inflected but the plurality is expressed via other elements in the sentence.

Plurality in many languages is one of the values of number which itself is a grammatical category. Plurality denotes a quantity which is different from the noun's default form. So plurals can denote two, more than two or in cases even negative amounts. While exercising plurality, other sentence elements may remain the same or get inflected accordingly, such as subject-verb agreement, to indicate plurality. In some languages such as Arabic the plural may indicate values of two or more than two, however, in most languages such as English and Persian the nouns are

mainly singular and the plural form expresses any quantity except one with negative amounts and fractions are also treated as plural (adapted from <https://en.wikipedia.org/wiki/Plural>).

The animacy hierarchy

The author of the paper has made use of Smith-Stark (1974) Animacy Hierarchy in some parts of data analysis section, so some introductory words to it seems to be necessary. According to Smith-Stark, “plurality splits a language if it is a significant opposition for certain categories but irrelevant for others. The type of evidence he produced concerned marking of the noun phrase for number (usually by marking the noun itself) and agreement in number, mainly verbal agreement but with some instances of agreement within the noun phrase” (cited in Corbett, p.55). He claimed, for instance, that in Georgian if the subject is plural and denotes an animate the verb will be plural, if it denotes an inanimate then the verb will be singular. Thus Georgian nouns are split and division is between animates and inanimates. To put it briefly, there might be distinctions between animate and inanimate noun plural forms or plurality may be marked on the verb for nouns denoting humans or higher humans but not inanimate objects (Corbett, 2004).

RESEARCH QUESTIONS

This paper aimed to answer the following research questions:

- 1) How do English and Persian mark plurality?
- 2) What are the similarity and differences between English and Persian in terms of plurality marking mechanisms?

METHODOLOGY

The investigator is a native speaker of Persian and the data and examples are her own. The data is analyzed and described through the contrastive method. The present work is dealing with the analysis of the plurality marking mechanisms of both English and Persian and to achieve the most representative work, some grammar books of English and Persian were consulted.

Scope of the study

Aside from the mechanisms which will be discussed later in this article, Persian and English have also irregular plural nouns which do not follow the rules provided in this article. In particular in Persian there exist lots of borrowed words from Arabic which over time have come either to maintain their original features or have adapted Persian phonological patterns for the ease of pronunciation. These irregular plural nouns have not been discussed here to keep the focus of the study on just regular aspects of plurality marking mechanisms (the discussion of borrowed words may need a comprehensive study of its own and this article is not intended to be exhaustive). The results of this study is deemed to be of practical use for those involved in the profession of teaching English to speakers of Persian and aids to eliminate the errors which may result from the mother tongue interference.

Contrastive analysis of english and persian plurality marching mechanisms

The differences which exist between English and Persian in terms of singularity and plurality may be the source of some errors made by Persian EFL learners. In order to mark plurality, Persian employs two mechanisms; noun inflection and verb inflection (verb agreement). In Persian the verbs are inflected for person, number and tense. That is, verb inflections in Persian can indicate plurality and singularity in past, present and future for all persons while English mainly resorts to noun inflection to express plurality. Verb inflections in English indicate the tense and somehow person (such as present simple) and do not necessarily specify the plurality. Each will be discussed in more details below.

1) Ma be mihmani raftim.

We to party go+simple past Inf.+ first person PL Inf. (we went to the party)

2) Anha be mihmani khahand amad.

They to party will+simple future Inf.+ third person PL Inf. Come.
(They will come to the party).

3) Ali be mihmani amade bud.

Ali to party come past perfect Inf.+third person SG Inf. (Ali had come to the party)

Example (1) shows the Persian verb has been inflected for simple past and first person plural, however, the English verb has been inflected for past. It is not evident from the English verbs in simple past tense how many people they refer to. The same verb form is used for all persons regardless of being plural or singular. As can be seen in example (2), the word *khahand* (will+third person PL Inf.) specifies both the future aspect as well as the plurality in Persian (it has been inflected for person, aspect and number), while *will* in English just indicates the future aspect and not the person or number. In the last example, the verb *amade bud* (*had come*) expresses past perfect in Persian. It has been inflected for third person SG and past perfect. The English equivalent, *had come*, expresses the same aspect, past perfect; however the number and the person is not evident since the form is identical for all persons.

In terms of verb inflection, there is still another difference between Persian and English regarding verb agreement. Persian makes a distinction between animate and inanimate subjects. For animate subjects, the verb is inflected for tense, number, and person but for inanimate subjects the verb may be inflected to show agreement or may keep its SG form.

4) Shagerdan ab khordand.

Students water drink+simple past inf. +third person PL inf. (the students drank water).

5) Bargha be zamin mirizand.

The leaves to the ground fall+present simple Inf.+ third person PL Inf.
(the leaves fall on the ground).

6) Bargha be zamin mrizad.

The leaves to the ground fall+present simple Inf.+ third person SG Inf.
(the leaves fall on the ground).

In example (4) the subject is animate, so the verb has been inflected. However, in examples (5) and (6) the subject is inanimate. There is a choice to either use a plural or singular verb form.

Affixation

Plural morpheme in English (-s)

In English nouns are made plural by adding the suffix (-s) which is considered the default plurality suffix morpheme for all types of nouns. The plural morpheme (-s) in English has three allomorphs (-s, -z, -iz) according to the last pronounced sound of the noun which proceeds it and they are in complementary distribution that is in specific contexts just one of them can be used. The (-s) plural can be attached to just countable nouns (Persian doesn't make any distinction between countable and uncountable nouns) and it is pronounced (s) if the noun ends in voiceless consonants and (z) if it ends in vowels and voiced consonants. The (-iz) allomorph is realized when the noun ends in sibilants and affricates.

Cat	cats (-s)
Map	maps(-s)
Phone	phones (-z)
Ring	rings (-z)
Glass	glasses (-iz)
Church	churches (-iz)

Plural morpheme in Persian (-ha)

Persian has two basic plural suffixes (-ha) and (-an). (-Ha) can be used with all classes of nominals and is considered to be the default plural marking suffix morpheme for both animates and inanimate nouns while (-an) is reserved for animates only. In formal varieties of the language the suffix (-an) is quite rare and the plural marker (-ha) (usually reduced to "-a" in spoken language) replaces both (Lotfi, 2006). So in English the occurrence of the three plural allomorphs depends on the phonological context of the noun, however, in Persian the phonological context doesn't play any roles whatsoever, instead the animacy of the noun is a factor. The plural markings in Persian are not in exact complementary distribution (-ha can be used in all phonological context for all types of nouns). That is (-ha) is used for animate and inanimate nominals but (-an) can be used with animates just.

Table 1: Plural markers for animates and inanimates in formal/literary Persian (adopted from Lotfi, 2006)

	animates	Inanimates
-ha	Pesar <i>ha</i> (boys), gorbe <i>ha</i> (cats), doxtar <i>ha</i> (girls)	Ketab <i>ha</i> (books), livan <i>ha</i> (glasses),
-an	Pesaran (boys), doxtaran (girls)	*ketaban, *livanan

7) daftar notebook

daftar-ha notebooks

8) sag dog

sag-ha dogs

The plural suffix (-an) (after consonants) and (-yan) (after vowels) can also be used, but only for animate nouns.

9) Pesar boy

pesar-an boys

10) xoda God

xoda-yan Gods

Another area of difference between English and Persian is how these languages use numbers to indicate plurality. In both languages numbers precede nouns, however, in Persian affixation is not applied when numbers are used with nouns. That is when numbers are used to express the exact quantity of the nouns; Persian nouns do not get inflected. Plural morpheme cannot be applied in the presence of numbers. In English, the plural morpheme follows the nouns when numbers precede the nouns. Without the plural morpheme (-s) the structure would be considered wrong in English.

- 11) Se baradar
Three brother (three brothers)
- 12) dah shahr
ten city (ten cities)
- 13) chahar ketab
four book (ten books)

As the examples show, when numbers are used along with nouns the plural morpheme is not applied in Persian and a singular noun is used in the presence of numbers. Whereas, in English the plural morpheme follows nouns either it is preceded by numbers or not. In English plural morpheme is necessary to indicate plurality with or without the presence of numbers.

Regarding demonstrative adjectives, in English a plural demonstrative adjective precedes a plural noun and a singular demonstrative adjective precedes a singular noun. Unlike English, in Persian plural nouns are preceded by singular demonstrative adjectives:

- 14) in ketabha
this books (these books)
- 15) an mardha
that men (those men)

RESULTS AND DISCUSSION

Contrastive analysis was a response to the need to teach an L2 in the most effective way. It assumes that second or foreign language learners may transfer their first language to the target language. Contrastive studies were carried out to discover these problematic areas where L2 learners will experience more difficulty and pedagogical materials were developed accordingly to facilitate foreign language learning. To eradicate the problems which may appear in learning the English plurality, teachers who teach English to EFL Persian speakers can pay more attention to the differences exist between these two languages in this regard. These differences are as follows:

- 1) Persian EFL learners may tend to pluralize English verbs, since Persian verbs are inflected for number and person as well as tense. The mistakes like *they walks* which are quite common in the early stages of learning English are of this type.
- 2) The pronunciation problems which Persian EFL learners might encounter while pronouncing English plural nouns may be another area of problem. In Persian the plural morpheme doesn't affect the pronunciation but in English it does. Pronouncing *chairs* as /tʃers/ not /tʃerz/ can be attributed to this area of difference.
- 3) Using singular demonstrative adjectives with plural nouns instead of plural demonstrative adjectives is another problem Persian EFL learners frequently face. Errors like *this cities* instead of *these*

cities can be traced back to the Persian language structure where singular demonstrative adjectives are used with plural nouns.

4) Persian EFL learners may tend to use singular nouns with numbers in the process of learning English since in Persian nouns do not get inflected for plurality when accompanied by numbers. Mistakes like *three brother* instead of *three brothers* are clear examples of this area of difference.

The main objective of this paper was to carry out a contrastive, comparative, and morphological analysis of plurality marking mechanisms in English and Persian. According to the data analysis, both languages apply plurality but they vary in their realizations and applications of this syntactic and semantic property. In Persian plurality is applied either on verbs (subject-verb agreement) or/and on nouns through inflections and plural morphemes. In English subject-verb agreement is rather partial (except for to be verbs and to a lesser extent present simple or present perfect) and the verb is not inflected for person and number.

The following rules can be deduced based on the data analysis presented in this paper:

Persian verbs are inflected for tense, person, and number hence Persian verbs can indicate plurality. However, English verbs aren't inflected for number and person, thus the English verbs don't clearly indicate plurality.

Persian default plural morpheme is (-ha) which can be used for all types of nouns. Persian also uses (-an) as a plural morpheme, however it is used with animate nouns only. So it can be said that Persian makes a distinction between animate and inanimate nouns but English doesn't. English has one plural morpheme (-s) which has three allomorphs: (-s), (-z), and (-iz). These allomorphs are in complementary distribution and depend on the last pronounced sound of the noun they attach to for their occurrence.

In English there is agreement between nouns and demonstrative adjectives; plural demonstrative adjectives go with plural nouns. Persian employs singular demonstrative adjectives with both singular and plural nouns.

CONCLUSION

Contrastive analysis is not a teaching method; rather it aims at sharpening and enhancing the awareness of the differences which exist between languages. The present paper was an attempt to compare and contrast English and Persian in terms of plurality marking mechanisms. It was observed that both languages make use of specific mechanisms to indicate plurality; however they apply this grammatical category differently. Regarding the differences, areas of potential problems for Persian EFL learners of English were anticipated. It is hoped that in the light of these findings this study would prove useful for both teachers and textbook writers of English as a foreign language.

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INVESTIGATING THE IRANIAN EFL TEACHERS AND LEARNERS' BELIEFS ABOUT TEACHERS' PEDAGOGICAL KNOWLEDGE

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ABSTRACT

The present study was an attempt to investigate Iranian English as a foreign language (EFL) teachers and learners' beliefs about teacher's pedagogical knowledge. For the purpose of the study, 200 male and female learners, between 20 and 34 years old ($M_{age} = 27$) and 50 male and female teachers, with the age range of 48 from Roudehen Islamic Azad University and Ershade Damavand University, and Tehran Central Branch participated in the study. The participants' beliefs about teacher's pedagogical knowledge were measured using on a model adapted from Akbari (2013). The results showed that students' belief about teachers' pedagogical knowledge was significantly better ($z = -2.427$, $p = 0.006 < 0.01$) than students'. Inspection of the both teachers and students' answers to each question was done by descriptive statistics and also interview was made to find the underlying differences. The results of this study have implications for students, teachers, and all those involved in the area of teaching and learning. Knowing the difference between different beliefs (teachers and learners) about teachers' pedagogical knowledge may help to increase the degree of learning and teaching a language better.

KEYTERMS: Teachers' beliefs - Learners' beliefs – Teacher's pedagogical knowledge

INTRODUCTION

According to Pishghadam and Navari (2010), everyone thinks and acts based on their beliefs and beliefs of the world which beliefs and ideas have been formed through years under the influence of numerous factors and are greatly impressive in people's actions and decisions in life. The belief about language learning is one of the variables, which has received a lot of attention recently in language learning process. According to Brown (2009), second language teachers and their students may have different points of view about effective teaching. The teacher's roles in the L2 learning process are of considerable importance. Moreover, while the notion of learner beliefs has been widely researched (e.g., Benson & Lor, 1999; Huang, 2005), teachers' opinions are few and far between, especially those concerning the Iranian EFL teachers. One of the

important variables in teaching and educational context is teachers' pedagogical knowledge which is essential in any kind of teaching domain in educational settings (Shulman, 1987). In his well-known study about knowledge and teaching, identifies seven categories in teachers' pedagogical knowledge, as follows: subject matter knowledge, general pedagogical knowledge, syllabus knowledge, pedagogical content knowledge, knowledge of learners and their characteristics, knowledge of educational contexts, and knowledge of educational purposes, values, philosophical and historical grounds. According to Shulman (1987), although much research has been devoted, the concept of teachers' pedagogical knowledge relatively less is known at present on their own beliefs and their students' beliefs about it. In education system, there are some requirements to be certificated as a teacher (Shulman, 1987). Beliefs about language learners and teachers have been found to have a significant impact on the language learner, and the emphasis on various possible teaching implications was reported in the literature (Barkhuizen, 1998; Kumaravadivelu, 1994). Moreover, one of the most essential factors of good teachers is teachers' pedagogical knowledge, which directly influences the outcome of teaching and consequently better learning (Barkhuizen, 1998). However, the present study seeks to fill a gap in locally situated research through identifying the overall beliefs of students and teachers' beliefs about pedagogical knowledge.

REVIEW OF THE RELATED LITERATURE

Teacher's Beliefs

Teachers' beliefs may come from a variety of sources. Three categories of experience influence the development of beliefs about teaching – personal experience, experience with education and instruction, and experience with formal knowledge (Richardson, 1996). Studies have shown that the influence of the quality of pre-service classroom experience and the opportunity for reflection on the pre-service experience has an effect on a teacher's beliefs (Bean & Zulich, 1992; Richardson, Grip, & Thompson, 1987, as cited in Fang, 1996).

Students' Beliefs

Beliefs about language learning are viewed as an element of metacognitive knowledge (Flavell, 1979), which comprise of all that individuals understand about themselves as learners and thinkers, including their objectives and needs. Flavell (1979) highlights the study of metacognitive knowledge in second language learning and focuses on the person. He calls this "person knowledge." Person knowledge is knowledge learners have developed about how cognitive and affective factors such as learner aptitude, personality, and motivation may have effect learning. In addition, it includes specific knowledge about how the above factors apply in their experience.

Teachers' Pedagogical Knowledge

There are seven categories of teacher knowledge which were defined by Shulman (1987). The literature about teachers' knowledge has pointed out the importance of developing only three main categories of teachers' knowledge: pedagogical knowledge (PK), content knowledge (CK), and pedagogical content knowledge (PCK). This was identified and stated by many researchers such as Cogill (2008); König and Blomeke (2012). Pedagogical knowledge is knowledge about teaching. Teachers, as specialists in the area, possess knowledge about how information can be

conveyed to their students and how to encourage students to use that information (Shulman 1986). In essence, pedagogical knowledge is the ability to present information in a manner that is understandable and applicable to the student. Pedagogical knowledge includes the decisions that teachers make in their teaching – which examples to use, which tasks to decide on and how to structure the lesson for the best possible learning outcomes. Pedagogical knowledge is a mixture of teaching strategies, approaches to teaching and technical knowledge of teaching conventions (Shulman 1986).

Previous Studies of Teachers' Pedagogical Knowledge

There was a study which was developed to explore various issues pertaining to instruction of higher-order thinking for Israeli science teachers. To evaluate pedagogical knowledge in the context of teaching higher-order thinking, a Likert-type scale was developed by Zohar and Schwartz (2005). The results of this study mentioned how teachers navigate higher-order thinking skills in the classroom and may inform how they evaluate their sense of efficacy in promoting such thinking skills in the classroom. One hundred and fifty science teachers in Israel were randomly chosen, and of these, there were 90 high school teachers from different major of teaching and 60 junior high school teachers. The data analyses resulted in a good reliability estimate (Cronbach's alpha; =0.79). The results indicated that the biology teachers scored significantly higher than the chemistry and physics teachers, with a strong effect size of 0.83 and 0.75, respectively. Furthermore, the junior high school teachers scored significantly higher than the high school teachers, and a correlational analysis was performed and produced a significant negative correlation between scale scores and teaching experience. No studies have been investigated the Iranian EFL Teachers and Learners' beliefs about teachers' pedagogical knowledge.

RESEARCH QUESTIONS

Considering these points, the following research questions were addressed:

RQ1: What are the Iranian EFL teachers' beliefs about teachers' pedagogical knowledge?

RQ2: What are the Iranian EFL learners' beliefs about teachers' pedagogical knowledge?

RQ3: Is there any significant difference between EFL teachers' and learners' beliefs about teachers' pedagogical knowledge?

METHODOLOGY

Participants

Based on practicality and feasibility, the participants of the study included 50 female and male teachers and 230 female and male students from Roudehen Islamic Azad University, Ershade Damavand University, and Tehran at central branch in Iran. It is worth noting that 125 students were females and 75 were males. In additions, from the 50 teachers 34 were females and 16 were males. The students were studying in English Translation and English Language Teaching and the mean age of the students was 27 years, ranging from 20-34 years and their average experience in studying English was six years. They all belonged to the same level of education, and they follow the same curriculum. In addition, the mean age of the teachers as participants was 48 years

and the teachers' average experience in teaching English was 12-years. For the qualitative aspect of the study, the researchers randomly selected 20 students and 10 teachers who completed the questionnaires, to conduct semi-structured interviews. The sampling procedure for interviews for both students and teachers is random sampling in which each of these 200 students had an equal and independent chance of being selected.

Instruments

The researcher herself designed the questionnaire for learners in order to measure their teachers' pedagogical knowledge based on a model adapted from Akbari (2013). This questionnaire aimed to measure the teachers' knowledge about English Language Teaching (ELT) based on their learners' points of views. Using an inclusive definition of teaching knowledge, this questionnaire has underlined various dimensions and components of English language teachers' knowledge base practical experiences. The instrument comprised 31 items with 5-point Likert scales: one scale is for assessing pedagogical knowledge, ranging from "perfect, very good, good, a little, and nothing". It is worth mentioning that in order to be assuring of the questionnaire's reliability, it was piloted too. Through piloting, the researcher decided to brief some items for better understanding of learners in main administration. The reliability of the questionnaire was 0.935.

In order to have a better view on general pedagogical knowledge a model adapted from Akbari (2013) was presented. This questionnaire aims to measure the teachers' knowledge about English Language Teaching (ELT). Using an inclusive definition of teaching knowledge, this questionnaire has underlined various dimensions and components of English language teachers' knowledge base practical experiences. The process of reflection promotes the interaction between theoretical and personal pedagogical knowledge. Therefore, reflection makes our perceptions and beliefs more objective, while contextualizing our conceptions of pedagogy. The questionnaire comprised 31 items with 5-point likert scales ranging from perfect, very good, good, a little, and nothing". The reliability of the questionnaire was 0.941.

A semi-structured interview with 3 questions about teachers' pedagogical knowledge as prepared regarding teachers and learners' perceptions based on the questionnaires. It is worth noting that the interview comprised 6 questions with 5-point Likert scales from "Strongly agree, agree, neutral, disagree, and strongly disagree".

Procedure

To assess the validity of teachers' pedagogical knowledge questionnaires, the researcher conducted a pilot study with 30 female and male students and also 30 female and male teachers with the same characteristics of the main participants. Analyzing the learners' and teachers' responses and having their comments, the researcher modified the questionnaires and omitted the malfunctioning items. The analysis of the pilot study data was done by using Cronbach's Alpha to see whether the questionnaires are reliable enough to be implemented in the study or not. The modified questionnaires were distributed to 230 female and male learners and 50 female and male teachers from Roudehen Islamic Azad University and Ershad Damavand University and Tehran Central Branch. The questionnaires were distributed during class time preceded by a brief explanation of the purpose and nature of the study. In this regard, a brief informative oral

overview of the nature and purpose of the study before implementing the questionnaires were given to both the students and teachers. After the completion of the instrument, the completed questionnaires were collected and scored by the researcher, but there are just 200 questionnaires out of 230 were answered completely. The questionnaire took about 10 minutes to be completed. After gathering information through the questionnaire, the research had an interview with 20 students and 10 teachers. Three questions based on the questionnaire were asked and the answers were rated based on five-likert scale. This descriptive study was of a mixed-method by using both qualitative and quantitative approach. For the null hypothesis, teachers and learners' beliefs are proposed as the dependent variables while the teacher pedagogical knowledge is considered as the independent variables. Gender and age are considered as intervening variables.

The quantitative data analysis component was applied to the data collected through the Likert-scale items in the questionnaires. The data emerging from answering the Likert-scale are numerical. Hence, they were analyzed quantitatively. Descriptive statistics such as frequencies, means, and standard deviations were computed to summarize the participants' responses. The measure of central tendency, including mean, the measures of variability, including range and variance (or the standard deviation), and the measure of frequency, including percentage of answers to each scale in each item, were done, too. Factor analysis was used to determine the underlying factors that might account for the main sources of variation among the individuals' responses to the pedagogical knowledge. Cronbach Alpha formula was also used to estimate the reliability and consistency of the instruments. In order to compare beliefs of the students and teachers' perception about teachers' pedagogical knowledge, the researcher used an independent samples *t*-test in order to compare the significant difference between the two groups' means and to test the null hypothesis. Qualitative data analysis involves the process of breaking down and reconstructing the information gathered in order to make sense of the data. In fact, qualitative data analysis was applied in the analysis of the responses to the open-ended questions collected from interviews.

RESULTS AND DISCUSSION

At the outset of the study, a pilot was conducted. The researcher employed two adopted questionnaires, using Likert-type scale. At this stage, the researcher was specifically interested in assuring that a valid and reliable indication of subjects' attitude could be extracted through the questionnaires. For this purpose, the researcher piloted the student questionnaire among 30 students who bore almost the same characteristics of the main participants and also piloted the teacher questionnaire among 30 teachers bearing the similar characteristics of the main participants. The Cronbach's alpha for the teacher pedagogical knowledge questionnaire based on students' point of view was 0.935 while the Cronbach's alpha for the teacher pedagogical knowledge questionnaire based on teachers' point of view 0.941. Furthermore, the validity of both questionnaires were checked through factor analysis. Followings are the descriptive statistics of answers to Teacher pedagogical knowledge questionnaire both by students and teachers.

Table 1: Descriptive Statistics of Answers to Teacher pedagogical knowledge Questionnaire by both students and teachers

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Student	200	56.00	120.00	97.0400	14.53391	-1.003	.172
Teacher	50	53.00	115.00	90.0800	17.09737	-.942	.337
Valid N (listwise)	50						

Inspection of the answers to teachers' pedagogical knowledge by both students and teachers revealed the differences of their perspectives. It was shown that while most of teachers (83 %) think of their knowledge of grammatical as good or above, 42 percent of students think differently (little). The results also showed that teachers have better thought of their knowledge of idioms than students do. Furthermore, it was shown that while 84 percent of teachers think they know the similarities and differences between the first language and the target language, 40 percent of students think that they have no or little knowledge about it.

Moreover, the results showed that 78 percent of teachers think that they know good or well how language learning happens, but 42 percent of students think that they do not. Also 54 percent of students think that teachers know nothing or a little about students' level of involvement in classroom while teachers think differently. Finally it was shown that while 75 percent of teachers think that they have a good or very good knowledge of political role of language and the use of power of relation, 38 percent of students think they have no or a little knowledge about it.

Finally to test the null hypothesis, a Mann-Whitney U Test was run. The results ($z = -2.427$, $p = 0.006 < 0.01$) indicate that there was a significant difference between the mean scores of the two groups. Hence, the second null hypothesis was rejected and it was shown that there was a significant difference between the teachers' knowledge from students' and teachers' point of view.

Table 2: Mann-Whitney U Test for the Teachers' Pedagogical Knowledge from Students and Teachers' point of View

	Pedagogical Knowledge
Mann-Whitney U	3755.000
Wilcoxon W	5030.000
Z	-2.724
Asymp. Sig. (2-tailed)	.006

a. Grouping Variable: Group

The results ($z = -2.427$, $p = 0.006 < 0.01$) indicate that there was a significant difference between the mean scores of the two groups. Hence, the null hypothesis was rejected and it was shown that there was a significant difference between the teachers' knowledge from students' and teachers' point of view.

Moreover, as evident from the result of interview regarding the first question (Can experience be a good source of promoting knowledge?) both teachers and students think of experience as a good way of promoting knowledge. Regarding the second question (can a teacher with high knowledge

lead students toward higher knowledge as well?), teachers think of knowledge as an effective tool to make students more knowledgeable. The students also thought so, but they didn't see the teachers' knowledge as the key point to this end. Regarding the third question, (Is the teacher knowledge the key point in making students learn better?), it was shown that students do not think of knowledge to be the most affecting factor of the teachers, while teachers mostly think as the knowledge to be the key to being a good influencing teacher. During the interview students mentioned that they think the good teacher is the one who can convey the knowledge not the one who merely has the knowledge but fail to properly convey it.

Discussion

Inspection of the answers to teachers' pedagogical knowledge by both students and teachers revealed the differences of their perspectives. It was shown that while most of teachers think of their knowledge of grammatical as good or above, about half of students think differently (little). The results also showed that teachers have better thought of their knowledge of idioms than students do. Furthermore, it was shown that while high numbers of teachers think they know the similarities and differences between the first language and the target language, almost half of students think that they have no or little knowledge about it. Moreover, the results showed that major numbers of teachers think that they know good or well how language learning happens, but almost half of students think that they do not. Also half of students think that teachers know no or a little about students' level of involvement in classroom while teachers think differently. Finally it was shown that while major percent of teachers think that they have a good or very good knowledge of political role of language and the use of power of relation, about half of students think they have no or a little knowledge about it.

The second descriptive analysis was done on the participants' answers to the interview questions. This was done as a complement for above mentioned inspections since it was expected that perhaps some of the participants had had answered the questionnaires' recklessly. So, some participants were randomly asked to sit in an interview to answer six questions related to the questions posed in the questionnaires. Finally the results showed that, students do not think of knowledge to be the most affecting factor of the teachers, while teachers mostly think as the knowledge to be the key to being a good influencing teacher. During the interview students mentioned that they think the good teacher is the one who can convey the knowledge not the one who merely has the knowledge but fail to properly convey it. The inspection of interviews approved the previously obtained results on the descriptive analysis of the questionnaires. After the descriptive inspection of the participants' opinion, statistical analysis was also done to test statistical differences between their opinions. A Mann-Whitney U test was used to test the null hypothesis. The results also indicated that there was a significant difference ($z = -2.427$, $p = 0.015 < 0.05$) between teachers' and students belief about teachers' pedagogical knowledge, teachers outperforming the students. The findings of this study were also in line with that of the work of Schoon and Boone (1998) and Sciutto et al. (2000) serve as a springboard for this proposed investigation of the relationship between knowledge and efficacy. Specifically, these studies have demonstrated that there exists a strong link between the demonstrated knowledge of teachers and their reported feelings of teaching efficacy.

CONCLUSION

Applications and Implications

Today, knowing the difference between different beliefs (teachers and learners) about teachers' pedagogical knowledge may help to increase the degree of learning and teaching a language better. The findings of the present study may be of benefit to EFL teachers, material developers, learners and generally to learning and education. Being aware of learners' beliefs regarding teachers' pedagogical knowledge allows teachers to think critically about these issues. By knowing their ideas, teachers can provide situations in which they can use their ideas in the classroom and applied them in their teaching. Moreover, through the results of the study, future teachers were able to analyze their pedagogical practice, constructing it in order to favor their students' language learning process and contributing to their professional development as educators. By providing insights gained from the results of this study teachers can develop an awareness regarding what factors students find important about teacher pedagogical knowledge effective and can consequently provide learners with better learning opportunities by studying these perceptions. The implication of the findings of this study for teacher educators and teacher trainers is to familiarize them with the issue of teacher pedagogical knowledge and the fact that this factor has significant effect in language learning and teaching. From a pedagogical perspective, the findings have an important implication in that teachers need to take into account their own level of pedagogical knowledge in addition to their age, background, motivation, experience and other individual characteristics.

Suggestions for Further Research

Future studies are needed to develop a deeper understanding of the particular pedagogical content knowledge components and its relationship to teaching and learning. moreover, teachers' reflection and self-evaluation, aiming at researching about their own classroom practices can be investigated in addition to teachers' pedagogical knowledge. Besides teachers' beliefs about their pedagogical knowledge, their personal characteristics (e.g. teacher experience, education level, teacher academic ability, teaching assignment) and personality factors are crucial to be investigated too. Moreover, this research was done on BA students majoring in English. Further studies can be conducted in different educational settings including language institutes, MA students as well as students majoring in different disciplines. In addition, this research was done in universities. Further investigations can be conducted in different educational settings including schools and private language schools as well.

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THE WASHBACK EFFECT OF UNIVERSITY ENTRANCE EXAM ON LANGUAGE LEARNING IN IRANIAN HIGH SCHOOLS

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ABSTRACT

Some progress was made in defining notions such as 'impact' and 'washback', and a number of studies appeared which analyzed the relationship between tests and teachers' and learners' attitudes and behavior. It seems that educational system in Iran is based on traditional assessment and rote learning. These traditional testing and assessment procedures are not authentic enough and therefore, do not demonstrate actual level of proficiency. This is a descriptive-analytic study to examine whether the washback effect of Iranian University Entrance Exam (UEE) on English learning in Iranian high schools is positive or negative. So, 120 female students of Al-Zahra University were selected randomly as the sample, and 120 questionnaires were distributed among them. After collecting the questionnaire, we analyzed the obtained data and we concluded that UEE has a negative effect on the high school students' learning. These findings have implication for syllabus designers, educational policy makers and community of language learners and learners in EFL contexts.

KEYWORDS: Washback, University Entrance Exam, high school, teachers

INTRODUCTION

A big problem in the Iranian Educational system is that admission to university is extremely competitive and difficult. Although the government has increased and expanded higher education institutions, it has not yet been able to meet the needs of a large number of applicants who are eager to enter free of charge public universities and institutes. That is why admission to higher education institutions is done through a tough nation-wide entrance examination in which only the most talented and studious students can manage. English is taught as a foreign language and is practiced within a context-restricted environment, in which the textbook and classroom teacher play the main role. Razmjoo (2004) stated that "the main objective of the UEE is to select and place the students with a high academic aptitude in the higher education institution of their choice" (p. 57). Salehi and Yunus (2012) studied the wash back effect of University Entrance Examination in Iran. Wash back means "the positive or negative impact of a test on classroom teaching or learning" (Richards & Schmidt, 2002, p.586). The researchers believed that UEE in Iran affects many people involved in it such as learners, teachers, parents, etc. in one way or another. Therefore, in this study they aimed to consider the wash back effect of UEE on English teachers especially high school teachers, learners and their parents. As a result, they offered two suggestions for replacing entrance examination in Iran.

LITERATURE REVIEW

Yin's (2010) study reported the strong effect of Chinese National Matriculation English Test and the College English Test on Language teaching. Pizarro (2010) also found that teachers seemed to spend most of their class time working on the skills featured in the ET and neglecting untested skills and material. Similar effect are reported in Xie and Andrew's (2013) study in which higher expectations of test success led to greater engagement in test preparation and knowledge of the test triggered more practice of test-taking skills. However, Alderson (2004) believed that although it is clear that washback is brought about by people in the classroom, not by test developers, there is so much that test developers can do to influence how people might prepare students for their tests. He further claimed that much more attention needs to be paid to the reasons why teachers teach the way they do, more study should be conducted to understand their beliefs about teaching and learning, the degree of their professionalism, the adequacy of their training and of their understanding of the nature of and rationale for the test and to see whether tests can be responsible for the way in which some teachers teach towards it. Likewise, according to Cheng and Curtis (2004), tests have often been criticized for their negative effects on teaching. However, they went on to say that "it is possible that research into washback may benefit from turning its attention toward looking at the complex causes of such a phenomenon in teaching and learning, rather than focusing on deciding whether or not the effects can be positive or negative." (p.11)

Cheng (2005) and Green (2007), for instance, found test-related activities (e.g., offering test-taking tips, doing question analysis) and test-taking strategies instruction more prevalent in IELTS/TOEFL preparation classes than in regular classes. Researchers from Iran, China, Hong Kong, Japan, Israel, and Turkey have dealt with the English section of the university entrance exams in their own countries. Qi (2004) investigated the intended washback effect of the English section of the National Matriculation Test in China. The results of her study revealed that there was a noticeable discrepancy between what the test constructors intended and what the teachers and students practiced in schools, indicating the inefficiency of the test for bringing about pedagogical changes in Chinese schools. Cheng (2004) explored the washback effect of Hong Kong Certificate of Education Examination (HKCEE) change on the teachers and their classroom teaching behaviors in secondary schools. The researcher concluded that certain washback effects on teachers' attitudes towards the modified exam could be seen, although the teachers' teaching activities were not influenced by the exam reform. Likewise, Watanabe (2004) investigated the washback effects of the Japanese university entrance exam on classroom instruction and concluded that the entrance exam gave rise to the teachers' use of the exam preparation as an opportunity to improve the English learners' proficiency. In Iranian context, Salehi & Yunus (2012) investigated the washback effect of the Iranian University Entrance Exam (UEE) on the Iranian high school English teachers. The study findings indicated that the UEE negatively and implicitly influences English teachers to teach to the content and format of the test. Additionally, they found that little attention is given to three language skills of speaking, writing, and listening in the classroom as these skills are not tested in the UEE.

Iranian University Entrance Exam

The importance of university entrance exam (UEE) in Iran cannot be denied because it is a criterion for admission into higher education and it supports the processes of self-evaluation and improvement of educational institutions. There has been intensive work by the Ministry of Education (ME), Ministry of Science, Research and Technology (MSRT), Education Evaluation Organization (the organization that is in charge of administering UEE annually), as well as non-governmental organizations in large and smaller towns to inform the high schools, pre-university centers, teachers, students, parents, publishers, and the community in general about the importance of this test administration and its implications. The UEE in Iran has been the sole criterion for admission into higher education for nearly four decades. This national test covers most of the courses that the students have been taught during a period of four years study in high school and pre-university center. This multiple-choice exam is administered in five main groups of students depending on their fields of study in high school. Some of the topics including English, Persian Literature, Arabic, and Theology are tested for the students in all the majors. The English section of the test includes 25 multiple-choice items and a cloze test. The students are given 20 minutes, as required by this section of the test, to react to the questions. The first six or seven items are on grammatical points and the remaining items include vocabulary items, a short cloze passage and two short reading passages followed by some multiple-choice comprehension questions. Table 1 summarizes the types of items in recent English subset of UEE.

Table 1: English Test Item Types

Type of Evaluation	Number of Items	Competence (Skill)
Identification of grammatically correct construction in a given context	6	Grammar
Diagnosing the correct and exact vocabulary	5	Vocabulary
Cloze test	5	Integrative skills
Situation comprehension	3	Reading comprehension
Text comprehension	6	Reading comprehension

Out of the 25 items of the test, eleven items assess exclusively grammatical competence and knowledge of discrete vocabulary items. The other fourteen items test integrative skills or reading skill. The cloze test requires students to know the correct verb form or the right preposition in a certain sentence. In some cases, it also requires understanding of relationships between adjacent sentences or clauses, asking students to choose the correct conjunction, connector or to interpret a reference. The “situation comprehension” and “text comprehension” items include questions that aim at testing global understanding, the intention of the text and inferences that can be drawn from the text. In general, the questions in the examination range from those that test basic knowledge of grammar and vocabulary to those that require general understanding of short texts, as well as inference making of specific passages.

Some Iranian students frequently complain that their English listening, speaking, and writing skills are poor. However, they seldom complain about knowing grammatical points. Why? Generally, most English language teachers and researchers consider that the four skills, i.e.,

listening, speaking, reading and writing should be equally developed for a high school and pre-university student, but listening and speaking skills are not covered in the UEE at all, and writing subset only covers a small section in the UEE. Why do not listening, speaking and writing skills have any role in EEOU if we say that all of the skills are equally important to high school and pre-university students?

On the other hand, many Iranian language researchers and educators have assumed various levels of washback impact on English instruction. Despite numerous studies regarding the testing impact on English as a foreign language teaching and learning being of different contexts, empirical research is still lacking on the perceptions of the UEE stakeholders about the washback effect of this high-stakes test on English teaching and learning in Iran. Thus, there is a need to investigate the nature and scope of the UEE washback effect on English learning and teaching in Iranian high schools based upon the perceptions of teachers, students and even the parents.

RESEARCH QUESTIONS

After reviewing several studies about the washbak effect of Iranian University Entrance Exam on English learning and teaching in Iranian high schools, two questions are presented as follow:

1. What is the effect of UEE on the students' learning?
2. Do different students in different locations have different perception towards UEE?

METHEDOLOGY

Participants

In this study, the target population was senior high school students in Iran. But the accessible population was the university students who had just passed the UEE and were studying at Al-Zahra University. Since Al-Zahra University is a State university for female students only, its students come from different parts of the country. Stratified random sampling was used to select 120 freshmen from three faculties (humanities, science, and engineering). Out of 120 questionnaires, which were given to the randomly selected sample, 113 completed questionnaires were returned with a response rate of 94.16 percent. Most of the respondents were from urban areas (56.63%) and public schools (66.37%). The Persian questionnaires were given to all of the randomly selected students.

Instrumentation

After reviewing instruments that had already been developed and used for washback studies, the researcher decided to develop his own questionnaire because, as Bailey (1999) stated, no single uniform questionnaire has been emerged to be used in different contexts. Furthermore the researcher agrees with Cheng (2005) who states that "the study of washback is culturally and socially bound" (p. 68). The internal consistency reliability of the questionnaire was .72.

The first part of the questionnaire was about students' school and context characteristics. Items in the second part of the questionnaire measured and assessed students' perceptions of the impact of the UEE on their learning activities. All the items were based on a six-point Likert scale.

To score the scale, the response categories were weighted. On the scale, items were coded as 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree. For unfavorable and negatively stated items, the weighting was reversed when data were entered into the computer for data analysis.

In this study, content and face validity of the survey questionnaire items were estimated. Internal consistency measures of reliability indicate the consistency of scores among the items which are a representative sample of a unified basic construct. Low internal consistency is often due to badly written items or wide content areas. Cronbach's coefficient alpha is used to assess internal consistency reliability. "If the items are scored as continuous variables (e.g., strongly agree to strongly disagree). The internal consistency reliability coefficient for the items of the survey questionnaire was .72.

Data Collection and Analysis

After the sampling procedures were finalized, data collection was carried out. In this study, survey questionnaire was used as the method of data collection. A cover letter was given to the students stating a) the purpose of the study and its social utility, b) professional organization and institution, c) why the respondent is important, d) promise of confidentiality and explanation of identification, e) the discussion of code number on the questionnaire, and f) an appreciation.

Statistical Package for Social Sciences (SPSS) was used to analyze the quantitative data from the survey questionnaire. Descriptive statistics helped the researcher to describe the basic features of the data and present quantitative descriptions in a manageable form. After organizing and summarizing the collected data in a sensible way, t-test statistics was then applied to analyze them.

RESULTS

Descriptive Statistics

In Part II, one student did not respond to item five, one student did not respond to item nine, two students did not respond to item 14, and one student did not respond to item 17. Questionnaire items not responded by the respondents have been delineated in the following table.

Table 2: Questionnaire items not responded by the respondents

Questionnaire No.	Item	Frequency
5		1
9		1
14		2
17		1
Total: 4		Total: 5

Characteristics of the surveyed students are displayed in the following table.

Table 3: Demographic characteristics of the surveyed students

School Location	Number	Percentage
Urban	41	36.28
Suburban	72	63.71
Total	113	100
School Type		
Public	93	82.30
Private	20	17.69
Total	113	100

T-test analysis

An independent-samples *t*-test was conducted to compare the scores of the public and private school students regarding their perceptions of the impact of the UEE on their learning activities. As indicated in Table 3, there is no significant difference between the perception scores for the public school students ($M = 4.61$, $SD = 0.70$) and the perception scores for the private school students [$M = 4.85$, $SD = 0.93$; $t(111) = -1.28$, $p > .05$]. This result suggests that almost all students, regardless of the school type in which they had studied, perceived the impact of the UEE on their learning activities similarly. Since there is no significant difference between the means of the two groups, the null hypothesis (There is no significant difference between students' perceptions of the impact of the UEE on their learning activities in view of the school type in which they were studying) fails to be rejected.

Table 4: The *t*-test of students' perceptions of the impact of the UEE on their learning activities based on their school type

School Type	N	Mean	SD	df	t	Sig.
Public	93	4.61	0.70	111	-1.28	0.20
Private	20	4.85	0.93			

Another independent-samples *t*-test was conducted to compare the scores of the urban and suburban school students regarding their perceptions of the impact of the UEE on their learning activities. As indicated in Table 4, there is no significant difference between the perception scores for the urban school students ($M = 4.48$, $SD = 0.67$) and the perception scores for the suburban school students [$M = 4.75$, $SD = 0.78$; $t(111) = -1.79$, $p > .05$]. This result suggests that almost all students, regardless of the school location where they had studied, perceived the impact of the UEE on their learning activities similarly. Since there is no significant difference between the means of the two groups, the null hypothesis (There is no significant difference between students' perceptions of the impact of the UEE on their learning activities in view of the school location in which they were studying) fails to be rejected.

Table 5: The *t*-test of students' perceptions of the impact of the UEE on their learning activities based on their school location

School Location	N	Mean	SD	df	t	Sig.
Urban	41	4.48	0.67	111	-1.79	0.07
Suburban	75	4.75	0.78			

DISCUSSION AND CONCLUSION

As the results suggest, the majority of the surveyed students in this study agreed that they perceived the harmful effect of the UEE on their learning. However, the independent samples *t*-test results indicated that there was no significant difference between students' perceptions of the impact of the UEE in view of the school type or location in which they were studying. This result is not in keeping with Read and Hayes's (2003) suggestion that one of the explanations for the level of washback effect may be attributed to various school background variables. This finding indicates that the UEE exerts its influence regardless of school location or type.

Considering the fact that washback effects on learning can not be measured accurately due to its complex nature, it is difficult to identify the phenomena of these kinds as well as direct or indirect effect they may have on learning, however, shedding more light on the issue is the responsibility of testers, teachers and institutions towards their clients, students, test takers, educational policy makers and syllabus designers. In more local contexts, too, teachers should help testers improve their tests; testers help teachers improve their teaching and give birth to a chain of mutually enhanced knowledge. In other words, findings as results of washback research should be introduced to improve teaching and testing processes. How can we encourage our teachers and educational decision makers to not to turn a blind eye to wash back and its positive as well as its debilitating consequences is a potential area of the research. This study was limited to female students and studying different genders in a wider context may light upon new dimensions.

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THE RELATIONSHIP BETWEEN CULTURAL INTELLIGENCE AND PRONUNCIATION QUALITY: THE CASE OF IRANIAN EFL STUDENTS

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ABSTRACT

The present study aims to explore the relationship between cultural intelligence and pronunciation quality to find the nature of the relationship that exists between them. Besides, it investigates how cultural intelligence is related to gender and age. To these ends, a total number of 100 Iranian speakers of English majoring in English teaching were first asked to fill out a 20 item cultural intelligence questionnaire developed by Van Dyne, Ang, and Koh (2008) and then took an IELTS-like speaking test which was subsequently scored by two raters, the average of which was considered as the score of participants' pronunciation score that represented the pronunciation quality of the participants. The result of data analysis indicated that there is a medium positive correlation between participants' cultural intelligence and their pronunciation quality. The findings also lead the researcher to conclude that gender and age were not determining factors in the participants' cultural intelligence. The findings of the current study could be used by English teachers, practitioners and learners in the EFL/ESL contexts.

KEYWORDS: cultural intelligence, Iranian speakers of English, pronunciation quality, gender, age.

INTRODUCTION

Pronunciation plays a remarkable role in English Language Teaching (ELT) world, particularly in developing communication skills and strategies to avoid misunderstandings. Nowadays, the significance of the pronunciation is undeniable; therefore, pronunciation instruction has become an essential factor in the field of foreign or second language teaching and learning. It is widely believed that communication takes place when speakers and listeners enjoy an intelligible pronunciation skill. Pronunciation is associated with various factors among which Cultural Intelligence is so noticeable. In other words, it is related to individuals' understanding about a culture and the ways cultures differ.

Cultural Intelligence, as a multidimensional intelligence, refers to “a person's capability to adapt effectively to new cultural contexts” (Earley & Ang, 2003, p. 59). Earley and his colleagues introduced the construct of Cultural Intelligence to delve deeply into the effectiveness of people's

performance across different cultures. Individuals with a higher Cultural Intelligence attempt to understand unfamiliar situations and adjust their behavior to cope with diverse situations. They can easily acquire pronunciation skills when they are faced with a new language and culture. In contrast, individuals who demonstrate a lower level of cultural intelligence cannot deal with different cultural backgrounds and lose their confidence and energy to reach cultural awareness. They get frustrated when interacting with people from different cultures and do not know how to function in different cultural situations. In spite of the significance of cultural awareness, few studies have been carried out to shed light on the association that may exist between cultural intelligence and students' performance. The main motive behind the current study is to contribute to the understanding of how Cultural Intelligence is related to EFL/ESL learners' pronunciation.

REVIEW OF RELATED LITERATURE

Pronunciation

Being a part of a code of a language and having been used to achieve meaning in the context of use, pronunciation is known as the production of significant sounds (Dalton & Seidlhofer, 2001). In the field of second language acquisition (SLA), pronunciation is often considered as “foreign accent”. Flege (1981) believes that foreign accent is caused from differences in pronunciation of a language by native and non-native speakers, i.e. when native speakers (NS) and nonnative speakers (NNS) pronounce a language differently.

Relationship between Pronunciation and Other Variables

Researchers have identified numerous factors that are related to pronunciation. These factors include careful versus spontaneous speech, musical ability, who rated the speech samples, sociolinguistic determinants, stylistic determinants, discourse determinants, the age of L2 learning, language learning aptitude, length of residence, gender, motivation, formal instruction, and language use (Piske, Mackay & Flege, 2001, Suter, 1976).

From among the factor that are believed to have an influence on accent and pronunciation, the age factor has traditionally been related with the Critical Period Hypothesis, and theories of brain lateralization and loss of plasticity. From Ellis' (1994) perspective, age is a social factor, and younger speakers of a foreign language are more prone to social pressures from their peer group. A lack of native-like control is obvious in adults' acquisition of foreign language pronunciation. The most popular interpretation for this phenomenon is age and the effect of a critical period for language learning and especially for pronunciation (Lenneberg, 1967; Scovel, 2000). Gender is also concerned with social identity; Ellis (1994) associates the higher possibility of experiencing greater success in pronunciation by women with identity factors, stating that “female ‘culture’ seems to lend itself more readily to dealing with the inherent threat imposed to identity by L2 learning” (p. 204). Concerning attitudes, Ellis states that a learner's attitude will represent their views toward both their own identity, and the culture of the language they are learning. These attitudes in turn will influence their success in learning the target language. Identity and pronunciation instruction are also related to each other.

Social and Identity Factors Related to Pronunciation

Along with the above factors, some scholars also noted out that younger learners of a foreign language may have less strict shaped identities. In the same line Dornyei (2009) discuss that children have relatively a weaker group identity in comparison with adults, and this may contribute to integration into a new language community to be identified with. Dalton and Seidlhofer (2001) raise questions about the ethics of trying to alter someone's pronunciation, since pronunciation may be a representative of identity. Sociolinguistic studies in the field of second language acquisition have confirmed that social, cultural and psychological factors might influence the language acquisition. There are increasing numbers of researchers interested in exploring the ways social factors affect the learner's approach to pronunciation, as well as their likelihood of fossilizing (Moyer, 2004; Piller, 2002). Considering the pronunciation achievements in the sociolinguistic paradigm, it had been indicated that more notice needs to be given to differences that individuals have in phonological attainment, especially in relation to factors such as sense of self in the new language and identity. Some issues that have been investigated concerning social issues involve the practical implications of accent and the social impact of accentedness, the relationship between learners' views toward their own accents and their accomplishments in pronunciation attainment, and how learners' social interactions might be influenced by listener perceptions and views toward pronunciation.

Studies about the effect of social factors on second language pronunciation has been presented with topics such as discrimination (Lippi-Green, 1997; Munro, 2003), identity (Zuengler, 1988), acculturation (Schumann, 1986), ethnic group identification (Gatbonton, Trofimovich & Magid 2005), thoughts about L2 speakers' intelligibility or speakers' ability to speak the language (e.g., Lindemann, 2002; Rubin, 1992), social variables thought to affect pronunciation attainment (Miller, 2003). When talking about the socio-cultural issues like acculturation, it is of high importance for individuals who migrate to foreign countries. Being able to interact and communicate comfortably and effectively in spoken English is of considerable importance for adult migrants settling in English-speaking countries, and an inability to do so may limit their educational, career and social opportunities (Derwing, Thomson, & Munro, 2006; Schellenberg & Maheux, 2007, Yates, 2011). Migrants themselves have indicated that developing speaking skills (Yates, 2010) and being able to pronounce English well (Derwing, 2003) is very important to them. Yet it seems that being able to speak with pronunciation that allows them to be understood by a range of people in a variety of different situations might be a particular stumbling block for many migrants learning English. Derwing et al. (2006) followed the progress of 40 migrants over a 10 month period as they attended beginner level English classes in Canada, and found that even after 10 months of full time English lessons, the majority of the participants were dissatisfied with their pronunciation skills. Zielinski (2010) found that developing pronunciation skills was also challenging for many migrants learning English in the Australian context. She reported that over half (54%) of the participants in a longitudinal study of migrants attending English classes in the AMEP expressed negative perceptions about their pronunciation skills.

Cultural and Language Identity

According to Hall (2003), there are two main perspectives of cultural identity. In the first, cultural identity is defined as “one, shared culture ... which people with a shared history and common ancestry hold in common” (Hall, 2003, p. 234). In this view, the shared history and cultural codes of a group of people provide a sense of “oneness”, a sense of “us” versus “them”. The second view of cultural identity more fully acknowledges the complexity of culture, and recognizes that within any group an exact shared experience is not possible. Even within a group sharing many experiences, there are “critical points of deep and significant difference” (Hall, 2003, p. 236).

RESEARCH QUESTIONS

1. Is there any relationship between cultural intelligence and pronunciation quality of Iranian speakers of English as a foreign language?
2. Do Iranian speakers of English with different genders have different cultural intelligence levels?
3. Is there any relationship between age of Iranian speakers of English and their cultural intelligence?

NULL HYPOTHESIS

1. There is not any relationship between cultural intelligence and pronunciation quality of Iranian speakers of English as a foreign language.
2. Iranian speakers of English with different genders don't have different cultural intelligence levels.
3. There is not any relationship between age of Iranian speakers of English and their cultural intelligence.

METHODOLOGY

Participants

The participants were selected on a voluntary basis from Islamic Azad university located in Zanjan, Iran. A total number of 100 participants took part the present study. They were M.A. students in TEFL (teaching English as a Foreign Language) and majority of them were passing their first or third semester in the above-mentioned course. Although the researchers attempted to include the same number of both genders, it was not possible to be fulfilled due to the fact that the majority of students in the M.A. course were principally female, which consequently affected the proportion of males and females in the present study. Their age ranged from 23-40 and most of them were also English major students in their B.A course, however, there were some participants with different B.A major backgrounds in the selected participants.

Instruments

Two questionnaires were used in the current study. The first questionnaire was developed and validated by Van Dyne, Ang, and Koh (2008). It is comprised of four parts that measure the four

components of cultural intelligence i.e. motivational, metacognitive, cognitive and behavioral CQs, which altogether make a 20-item questionnaire. The first part that was the motivational component of CQ, was comprised of 5 items, the second part related to cognitive aspect of CQ had 6 items, the third items concerned the metacognitive aspect of CQ comprised of 4 items, and 6 items made the last part of the questionnaire indicated the behavioral side of CQ. In order to answer the cultural intelligence questionnaire items, the participants were free to choose from among the 4 likertive scale (from strongly disagree- strongly agree) which was so for all the items. As Van Dyne, Ang & Koh (2008) reported, the four factors of cultural intelligence were moderately related (0.21-0.45), with acceptable variances (0.75-1.03). They also found the corrected item-to-total correlations for each subscale (0.47-0.71) that indicated a strong relationship between items and their scales, supporting internal consistency. Composite reliabilities also exceeded 0.70 (metacognitive CQ = 0.71, cognitive CQ = 0.85, motivational CQ = 0.75, and behavioral CQ = 0.83). Analyses of the data also provided evidence of convergent, discriminant and criterion validity of the CQS across self- and peer-ratings.

The second instrument was the IELTS pronunciation rating scale extracted from Yates, Zielinski and Pryor (2008). This scale had 10 items (sounds, rhythm, stress at word level, stress at the sentence level, intonation, chunking, speech rate, intelligibility, listener strain, accent) that can be scored from 1-5 each, which indicate the final score of individuals' pronunciation from 10-50 altogether.

Procedure

The participants were first asked to complete the hard copies of the questionnaire related to cultural intelligence either in their free time or in class time, depending on the decision of the professors and if they were willing to cooperate with the researcher while considering the time limitation of the class. The questionnaires took about 15 to 20 minutes to complete. Having completed all the items in the questionnaire, the participants were asked to take the second part which was giving an IELTS like speaking test whenever they had free time to have the test. This speaking section actually was used as a means or as a sample of individuals' pronunciation that provided the basis to make further judgements on participants' pronunciation quality.

Since the rating procedure for pronunciation was somehow subjective, the researcher decided to have two raters in the process of rating. To make sure that the two raters had approximately the same score for the examinees, they were first asked to rate the pronunciation of 20 individuals while considering the items of the abovementioned scale, then the inter-rater reliability was calculated as indicated in Table 1.

Table 1: Correlations between the Two Raters

		rater1	rater2
rater1	Pearson Correlation	1	.928**
	Sig. (2-tailed)		.000
	N	20	20
rater2	Pearson Correlation	.928**	1
	Sig. (2-tailed)	.000	
	N	20	20

** . Correlation is significant at the 0.01 level (2-tailed).

A Pearson product-moment correlation was run to determine the relationship between the inter-rater reliability. It was found that there was a strong, positive correlation between the scores of two raters ($r = .92$, $n = 20$, $p < .0005$).

To make more accurate decisions about the pronunciation quality of the participants, the average score of two raters for every single individual was considered as the final score, in spite of having a high inter-rater reliability index.

RESULTS AND DISCUSSION

Data Analysis for the First Research Question

The first research question of the present study deals with the relationship between cultural intelligence and pronunciation quality of Iranian speakers of English. To answer this research question, the researcher attempted to do a Pearson correlation between the two variables in focus which is illustrated in detail in Table 2.

Table 2: Correlations between CQ and Pronunciation Quality

		Pronunciation	CQ
Pronunciation	Pearson Correlation	1	.34**
	Sig. (2-tailed)		.001
	N	100	100
CQ	Pearson Correlation	.34**	1
	Sig. (2-tailed)	.001	
	N	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

As Table 2. suggests a Pearson product-moment correlation coefficient was computed to assess the relationship between Iranian English speakers' cultural intelligence and their pronunciation quality. There was a positive correlation between the two variables, $r = 0.34$, $n = 100$, $p = 0.001$. Considering all the facts from the table above, it can be stated that there is a positive significant correlation between Iranian English speakers' cultural intelligence and their pronunciation quality. Increases in Iranian speakers' cultural intelligence moderately correlate with increases with their pronunciation quality.

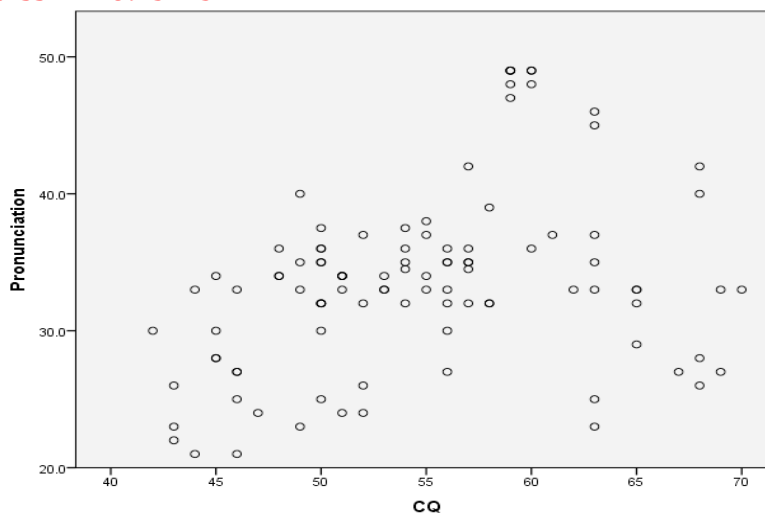


Figure 1: Scatterplot for Iranian English speakers' Pronunciation quality vs. their CQ

Figure 1 also proves the moderate positive relationship that exists between Iranian cultural intelligence and their pronunciation quality.

Data Analysis for the Second Research Question

The second research question of the present study aims to investigate if Iranian speakers of English with different genders have different cultural intelligence levels or not. As Ary et.al (2013) assert, t-test is used to determine whether the difference between two sample means is statistically significant. Field (2009) state that independent-samples t-test is used when different participants are assigned to different conditions. Based on what was said above, an independent sample t-test was used to see if gender had any influence on cultural intelligence of Iranian English speakers of English:

Table 3: Group Statistics for Different Genders

	Gender	N	Mean	Std. Deviation	Std. Error Mean
CQ	male	43	54.95	5.95	.90
	female	57	54.72	7.90	1.04

Table 4: Independent Samples Test for Different Genders

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Interval Difference	Confidence of the Difference
									Lower	Upper
C	Equal variances assumed	7.29	.008	.16	98	.87	.23	1.44	-2.62	3.09
Q	Equal variances not assumed			.16	98.00	.86	.23	1.38	-2.51	2.98

As Tables 3 and 4. indicate female Iranian speakers of English ($M = 54.72$) had almost the same level of cultural intelligence with that of males ($M = 54.95$) and the difference was not significant, $t = .16$, $p > .05$. Based on findings of the data analysis, it was found that gender was not an influential factor in determining the cultural intelligence level of Iranian speakers of English and the mean of the two groups was nearly the same regardless of the genders they had.

Data Analysis for the Third Research Question

The third research question of the present study deals with the relationship between age of Iranian speakers of English and their cultural intelligence. To detect the relationship between the variables in questions, the researcher attempted to do a Pearson correlation, the result of which is illustrated in the Table 5.

Table 5: Correlations between Age and Cultural intelligence

		Age	CQ
Age	Pearson Correlation	1	-.051
	Sig. (2-tailed)		.612
	N	100	100
CQ	Pearson Correlation	-.051	1
	Sig. (2-tailed)	.612	
	N	100	100

As the content of the Table 5. suggests there was almost no correlation between the two variables in focus, $r = -.051$, $n = 100$, $p = .612$. So the age of the Iranian speakers of English was not related to their cultural intelligence level. To gain a better understanding of the nature of the relationship between the two variables, the researcher has provided a scatterplot offering an explicit view of the nature of this relationship in Figure 2. As it is obvious from the figure, there is almost no relationship between the two variables. This conclusion supports the findings of the Pearson correlation illustrated in Table 5.

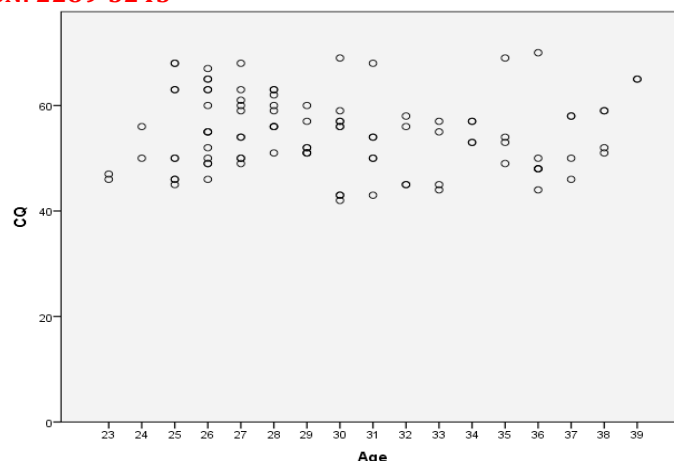


Figure 2: Scatterplot for the Age of Iranian English speakers vs. their CQ level

CONCLUSION

The first research question aimed at exploring the relationship between cultural intelligence and pronunciation quality of Iranian speakers of English. To this end the participants' answer to cultural intelligence questionnaire was correlated with their score in pronunciation. As it was revealed in the data analysis part, there was a medium positive correlation between the two variables in focus i.e. cultural intelligence and pronunciation quality which means that participants with higher cultural intelligence level moderately tended to have better pronunciation quality.

To the best of researcher knowledge, no study ever has investigated the relationship between cultural intelligence and pronunciation quality. But if we consider pronunciation as a component of language, it can be claimed that the findings of the present study, is line with the findings of Ghonsooly and Shalchy (2013) who found that CQ and cognitive CQ in particular are a good predictor of writing ability and writing fluency.

Turning to the second research question which focused on the effect of gender on cultural intelligence level, it was found that statistically there was not a significant difference between males and females as far as their cultural intelligence level was concerned. The findings of the present study are in contrast with what Azizi, Fatemi, Pishghadam, and Ghapanchi (2015) found in this respect. Based on their findings, they concluded that males had significantly higher level of cultural intelligence compared to females.

The third research question explored the relationship between age and cultural intelligence to see if people's age was significantly related to their cultural intelligence level or not. The analysis of the data collected in this study revealed that the cultural intelligence of the participants had almost no relationship with their age. This conclusion affirms the findings of Azizi, et.al (2015) in this respect who came to the conclusion that there was no statistically significant difference among the age groups with regard to their CQ level in their study.

Medium positive correlation which was shown in this study, seems logical on the ground that people with higher cultural intelligence tend to act better in a culture other than their own, make a better and successful connections with people from other cultures, and use the language in a way that facilitates the establishments of a good connection. In this case having a good pronunciation is a factor that might contribute to the establishments of a good connection.

(De)Limitations of the study

Like other researches, the current study has its own limitations. There are some factors (such as attitudes, motivation, exposure and instruction) which seem to have influence on pronunciation which could not be controlled in this study.

The participants of the present study were mainly English students in M.A level. They were preferred to be included in this study because of their better cooperation as well as ease of access.

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