

The Effect of Differences in the General Proficiency of Iranian EFL Students on their Metaphorical Competence

Zahra Rezaei, M.A. in TEFL

Zahrar_64@yahoo.com

Islamic Azad University, Khorasgan

Aliakbar Jafarpour, Ph.D. in TEFL*

Aliakbar_jafarpour@yahoo.com

Shahrekord State University

Abstract

This study was an effort towards examining the relationship between Iranian EFL learners' language proficiency and their metaphorical competence. The subjects were 120 Iranian EFL learners studying at SADR English Language Teaching Center within the 19-25 age range. The EFL learners' English proficiency varied from Elementary to Advanced which was determined by the OPT. Afterwards, the students were administered a researcher-made test assessing their metaphorical competence. The test consisted of ten concepts with each concept containing five metaphors together with their Persian equivalents written in English. Having two scores in hand, the researcher was able to see whether there were any significant relationships between the students' language proficiency and their metaphorical competence. The researcher used the SPSS software package to calculate the degree of correlation between participants' language proficiency and their metaphorical competence. Using the Pearson Correlation Coefficient formula the researcher used the statistical procedure of one-way ANOVA to determine the relationship between learners' metaphorical competence and their language proficiency. The findings revealed that the more proficient the EFL learners were in English language, the more metaphorically competent they would be.

Keywords: Language Proficiency, Metaphor, Metaphorical Competence, EFL Learners.

1. Introduction

One of the crucial aspects of language learning and language teaching is a concept termed metaphor. As Lakoff and Johnson (1980) asserted, metaphor is defined in terms of understanding or experiencing one thing in terms of another. Moreover, according to what classical theories of language mention, metaphors are just

considered as a matter of language not thought. In addition, they considered figurative language and metaphor as something which can not be placed in the domain of everyday language and they believed everyday language has no metaphor. In classical theories, metaphor was just considered as a matter of poetic linguistic expressions which could not be

* Corresponding Author

Submission date: May 10, 2012

Acceptance date: Jan 10, 2013

included in the ordinary language used everyday. After a while, the classical theory was taken for granted.

In contrast with what classical theorists mentioned about metaphors, cognitive linguists believed that what governs metaphorical expressions is in thought not language. In short, metaphors are not just centralized to language but in the way we conceptualize one mental domain in terms of another.

According to the above-mentioned assertions, metaphor is a concept which is considered as a matter of language and not thought or action. Generally, in the past ordinary people, language teachers as well as language learners used to consider metaphor not needed in everyday language. The focus of language teachers and language learners was just teaching and learning some of the grammatical points; hence, metaphor was considered to be of no use which was totally neglected.

1.1. The Uses of Metaphor

Obviously, as Barker (1996) claimed, metaphor is one of the most crucial and effective tools of communication. Moreover, as Rizzuto (2001) asserted, it is one of the useful tools in addressing multi cultural issues in groups since metaphors work as a cognitive device to cover up the important feelings and values. In addition, they are useful ways of addressing things indirectly in communication. Furthermore, Penn (2001) and Austin (2010) added that the process and comprehension of metaphorical statements are much easier than direct statements. As well, when communicators try to use metaphorical language the result of their discussions would be less unfavorable than when they use non-metaphoric language or direct communication and this is exactly because when communicators use metaphoric language or indirect way of speech it provides them with an opportunity to step a little far away the immediate situation and

share dialogue which may differ from the pain of past experiences. Abernethy (2002, p.6) declared that “metaphors transform meanings; they create new perspectives, new situations, and new opportunities for connection”. “Meaning is not a stable entity, but an outcome of relational negotiations in a particular context” Penn (2001, p.44). Other linguists such as Lakoff and Johnson (1980) also have some other assertions about the uses of metaphor. They maintained that metaphors cause changes; it means changes are made as a result of the available metaphors. Lakoff and Johnson (1980, p.145) asserted that “new metaphors have the power to create a new reality. This can begin to happen when we start to comprehend our experience in terms of a metaphor, and it becomes a deeper reality when we begin to act in terms of it. Much of cultural change arises from the introduction of new metaphorical concepts and the loss of old ones”.

As such, when metaphors are used, there is a better chance for communicators to understand each others’ intent. Barker (1996) also contended that the use of metaphor or generally metaphoric language is valuable when the message and the information which is supposed to be conveyed are complex and difficult to be transferred. Another linguist called Czander (1993) cited another use for metaphor. He mentions that metaphor has a unifying role. Some of the organizations often use it to unify their workers.

2. Empirical Studies on Metaphor

According to Valenzuela and Soriano (2005) and also according to Austin (2010), who argued that there have been lots of empirical research on metaphor and figurative language, so far the most comprehensive investigations in these cases have been done by Gibbs in his poetics of mind (1994). In his basic and crucial works, he viewed metaphor from different angles

and surveyed different aspects of metaphor and figurative language. For instance, he investigated the nature of figurative language versus literal language, child metaphorical language acquisition, metaphorical language processing, metonymy and also other different areas where metaphor plays a role. Some of the recent empirical studies belong to Soriano (2005). Some of the methodologies applied by them are as follows:

2.1. Behavioral and Reaction-Time Studies

One of the empirical studies regarding the concept of time has been done by (Boroditsky, 2000, 2001; Boroditsky & Ramscar, 2002). These scholars have some assertions about the notion of time and they claim we not only talk about time in terms of space, but in fact think of time in terms of space. In order to show that their claim is true they tested the existence of two metaphors of time Ego-Moving and Time-Moving Lakoff and Johnson (1980).

According to different mappings we can both conceptualize time as an entity which moves and we stand still for example, Christmas is coming soon, or time stands still while we are moving toward it such as, we'll meet each other next Monday. The first example is the case of Time-Moving and the second is the example of Ego-moving. In the first example we conceptualize time as a moving object and in the second we understand it in terms of space.

2.2. Gesture Studies

Cienki (1998) asserted that one of the other evidence to prove the reality of conceptual metaphors psychologically is through gesture studies and also other ways of expression which are non-verbal. One of the pioneers of gesture studies is McNeill (1992) who investigated the relationship of gesture and language. According to McNeill (1992, p.295) the fact "that children's speech and gestures develop together suggests that they are components

of a single system from the earliest periods. From age two or so onwards, the two never seem to be separate. This is one argument for considering speech and gesture to be two aspects of a single process". Moreover, he claims that gesture and language co-occur and also complements each other in use. (Butterworth & Beattie, 1978; Dancygier Sweetser, 1996; Duncan, 2001; Kendon, 1995, 2000; Sweetser, 1998; Webb, also maintained that gesture can reduce the ambiguity and implicitness of the expression because it can provide context hence, the expression comprehension would be easier. It can also change the pragmatic purpose of the utterance and highlight the main topic. As Kendon (2000, p.61) asserted "speech and gesture are co-expressive of a single inclusive ideational complex, and it is this that is the meaning of the utterance".

MacNeill (1992) believed that language and gesture realize the same metaphors. In most cases the language we use and our gesture go along with the same mapping. Cienki (1998, P.203) also noted that "gesture can anticipate the same conceptual metaphor that is going to follow in language, an observation that gives support to the claim that metaphor is not a question of language but of thought".

2.3. Eye-Tracking studies

One of the ways which has been proved to be extremely useful in the investigation of several areas of language processing is eye-tracking. Several eye-tracking experiments have been performed and all together showed the difficulty in processing the sentences in processing the sentences with metonymic meaning is comparable with those with literal meaning, but the expressions without relevant metonymic interpretation caused difficulty for readers.

Therefore, it can be concluded that both literal and metonymic expressions are processed equally easily and also context plays a very important role in metonymy and metaphor processing.

However, the fact is that, metaphor is one of the crucial aspects of second language acquisition as well as second language teaching. On the other hand, exposure issue is among numerous ways which help learners acquire metaphors. Therefore, in order to learn the metaphors of a language, a learner can interact with native speakers of the target language via internet or e-mail or if it is possible traveling and being in the real environment. When the learner is exposed to the real language one part of which is metaphors, he/she can acquire metaphors of the language easier.

One of the problems that language teachers are confronted with in language classrooms is lack of enough confrontation with figurative language, Hall Haley Austin, (2007). Learners with low proficiency mostly cannot understand figurative language and metaphorical expressions easily. Since in the majority of classes language teachers try to draw the students attentions to grammatical points, pronunciations, conversations or namely anything but the metaphors which are applied in any of the exercises or parts of the books. Hence, we are not sure whether that is the teachers' lack of attention to the figurative dimensions of the language or the students mastery over metaphors will rise as their proficiency level improves.

Much research has been done on the subject of metaphor, but the number of investigations to see the relationship between language proficiency and metaphorical competence is very few. Therefore, the researcher in the present study has attempted to see whether there is any relationship between different general proficiency levels and the use of metaphors by Iranian EFL learners.

As Lakoff (1993) asserted in the classical theories metaphor was considered as just the matter of language not thought or action. Generally, they believed metaphor was of no use in the ordinary everyday

language and it was not needed at all. Little by little, this theory was taken for granted and came to be false. Lakoff (1992) in his article *The Contemporary Theory of Metaphor* showed his disagreement with what classical theories said in the past and he claimed that metaphor is pervasive in everyday language and it is not just the matter of language but thought and action.

Moreover, Johnson and Rosano (1993) conducted investigations on the influence of language proficiency on metaphorical competence and he came to the conclusion that language proficiency has no influence on metaphorical competence. In the current study an attempt was made to investigate the relation between language proficiency and its impact on metaphorical competence and to apply its pedagogical implications within the framework of educational settings. In the present study the researcher also aimed to help teachers not to worry about the students lack of appropriate metaphorical competence by suggesting some ways such as providing EFL learners with authentic materials such as humorous language , song lyrics, movie scripts, newspaper and stories.

3. Methodology

3.1. Participants

Participants of the present study consisted of 120 Iranian EFL learners, who were studying English language at SADR English Language Teaching Center. They were randomly selected through cluster random sampling from among 175 participants.

3.2. Materials

First, an OPT was used to determine the general proficiency level of participants of the present study and to assign them into three homogenous groups of Elementary, Intermediate and Advanced. Then, a researcher-made test was designed to tap the participants' metaphorical competence, comprising 50 items with three sections of comprehension, production and recognition.

3.3. Data Collection

In order to test the relationship between language proficiency and EFL learners' metaphorical competence and generally to meet the objective of the present study the participants were asked to engage in two tests; The first test was the OPT with 100 grammatical questions. Having gathered the OPT scores of participants, the researcher divided participants into three groups of Elementary, Intermediate and Advanced levels.

The second test was a researcher-made test including three sections: 1- multiple-choice section 2- production section 3- comprehension section. In the multiple-choice section, the students had to recognize the proper genuine English language metaphor. In the comprehension section, the right understanding of metaphorical expressions was needed to produce the acceptable message. Finally, in the production section, the participants had to produce the appropriate metaphorical expressions and proverbs.

3.4. Data Analyses

The present study attempted to investigate the relationship between the proficiency in language and its relationship with metaphorical competence growth. As it was mentioned in the previous paragraph, the participants took part in the OPT. According to the results of the OPT, participants were categorized into three groups of Elementary, Intermediate and Advanced levels of proficiency. Afterwards, the participants took part in the

researcher-made test. In order for the researcher to analyze the results of the researcher-made test, the statistical analyses of CORRELATION and ANOVA were applied to see whether or not the students' metaphorical competence has been developed along with their language proficiency.

4. Results and discussions

4.1. The Results of the Placement Test

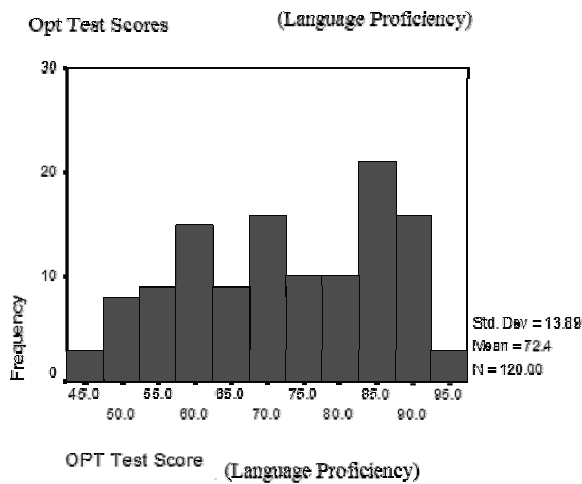
As mentioned before, first 120 EFL learners were randomly selected and took part in OPT which was just included 100 multiple-choice questions on grammar, finally the participants were classified into three different groups of Elementary, Intermediate and Advanced according to their level of language proficiency. After this classification, the members of each group took part in the researcher-made test including three sections; a) the comprehension of the metaphorical language, the production of such a language, and c) the production of messages for the mentioned metaphors of OPT and the comparison made between three groups are presented in Table 4.1 and Figure 4.6.

Table 4.1 revealed that, according to the procedure mentioned before, the participants were assigned to 3 separate groups: Group 1 consisted of 40 Elementary English learners, with a mean of 56.07; Group 2 included 40 Intermediate English learners with a mean of 73.12; and Group 3 consisted of 40 Advanced English learners with a mean of 85.02.

Table 4.1. *The OPT results for the three groups of elementary, intermediate and advanced*

Groups	N	Max.	Min.	Mean	Std. Deviation
Advanced	40	95	85	85.02	2.87
Intermediate	40	66	82	73.12	4.66
Elementary	40	65	44	56.07	5.83
Total	140	226	211	214.21	13.36

Histogram



The followings are the results obtained from the ANOVA analysis of OPT test scores.

The obtained scores from the OPT were statistically analyzed, using ANOVA. It should be mentioned that on the basis of the above tables and according to the indexes of descriptive statistics and the results of the variance analysis (F Test) at the level of $P < 0.05$, there is a significant difference between the means of three groups; Advanced, intermediate and elementary in their general proficiency (OPT). And on the basis of the results of Post hoc, there is a

significant difference between three groups (advanced, intermediate, elementary) two by two.

4.2. The Results of the Researcher-Made Test Given to the Three Groups. The obtained data and results from the researcher-made test were statistically analyzed. The results are presented in Table 4.2 and shows if there is any significant difference between the means of the three groups, and it also displays if there is any difference in learners' metaphorical competence according to the means of groups gained from the results of the OPT.

Table 4.3 illustrates the descriptive statistics of three groups' metaphorical competence. As seen in Table 4.3 regarding the equal number of the groups which is 40, maximum score of advanced learners in researcher-made test is 48, intermediate 32 and elementary 23. Besides, the minimum scores of Advanced, intermediate and elementary students are 10, 9, and 2 respectively which further result in a mean of 31.32 for advanced, 20.95 for intermediate and 11 for elementary learners. The standard deviations of the groups are 7.78, 4.66 and 5.33 in a respective manner.

Table 4.2. OPT test scores (General Proficiency)

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	20446.867	2	10223.433	479.199	.000
Within Groups	2496.125	117	21.334		
Total	22942.992	119			

Table 4.3. Descriptive statistics of the three groups' metaphorical competence

Groups	N	Max.	Min.	Mean	Std. Deviation
Advanced	40	48	10	31.32	7.78
Intermediate	40	32	9	20.95	4.66
Elementary	40	23	2	11	5.33

$P < 0.05$

What has been said is better illustrated in figure 4.2 which is a histogram demonstrating researcher test scores of metaphorical competence.

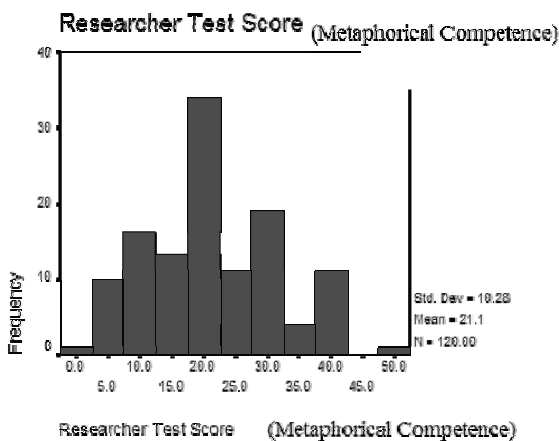


Figure 4.2. researcher test scores of metaphorical competence

Table 4.4 demonstrates the results of One-Way ANOVA analysis of the scores of researcher-made test.

In order to examine the relationship between language proficiency and metaphorical competence, the scores obtained from the researcher-made test were statistically analyzed using the one-way ANOVA.

Table 4.4. ANOVA of researcher test scores (Metaphorical Competence)

	Sum of Squares	df	Mean Square	F	Sig
Between Groups	8263.317	2	4131.658		
Within Groups	4316.675	117	36.895	111.985	.000
Total	12579.992	119			

Table 4.5. The comparison between general proficiency and metaphorical competence of three groups

	N	Mean	Std. Deviation
OPT Scores	120	72.4083	13.88518
Researcher Test Scores	120	21.0917	10.28174

P<0.05

The numerical values beneath the column head of significance indicate that there are significant differences between the three groups experimented in this study because the significance values are less than 0.05 level of significance.

The result of One-way ANOVA indicated that the performance scores of the Elementary, Intermediate and Advanced groups in the test of metaphorical competence show significant difference between participants' language proficiency and their metaphorical competence. F value of test score equals $4.82 < 111.985$. In addition, the significance value is $.000 < .05$.

4.3. The Results of the Relationship between General Proficiency and Metaphorical Competence.

In order to examine if there was any correlation between general proficiency and metaphorical competence, the scores obtained from the OPT which tested the general proficiency of 120 EFL learners were compared with the scores of the researcher-made test which displayed the EFL learners' metaphorical competence and they were statically analyzed, using the Pearson- Product moment correlation.

Table 4.6. The result of the correlation between OPT scores and the researcher made test

		OPT Test Score (General Proficiency)	Researcher Test Score (Metaphorical Competence)
OPT Test Score (General Proficiency)	Pearson Correlation	1	.844(**)
	Sig. (2-tailed)		.000
	N	120	120
Researcher Test Score (Metaphorical Competence)	Pearson Correlation	.844(**)	1
	Sig. (2-tailed)	.000	
	N	120	120

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

According to the above-mentioned, as seen in Table 4.5 the mean of OPT scores is 72.4 and that of the researcher-test scores is 21.09. Further, table 4.6 illustrates that the Pearson-product moment correlation coefficient of the two scores is 0.844 which indicates a highly positive correlation between the two sets of scores. Consequently, it can be inferred that OPT scores are significantly related to researcher-made test scores that is there is a significant relationship between general proficiency and metaphorical competence of EFL learners.

As Tables 4.5 and 4.6 show and according to the indexes of descriptive statistics and the results of the correlation at the level of $P < 0.05$, there is a significant relation between the EFL learners general proficiency and metaphorical competence. Helping learners to progress from the literal to the metaphoric meaning of metaphorical expressions and also helping them use metaphoric or figurative language appropriately is a challenge. Findings of this study seem to reveal that the issue of metaphorical competence and language

proficiency in second languages appeared as some important topics deserving serious attention in linguistic/psychological discussions and instructional practices and that a detailed consideration of them in future SLA/SLT metaphor research is both feasible and necessary.

This study tried to figure out the relationship between metaphorical competence and language proficiency of Iranian EFL learners. The researcher wanted to suggest that it is a good idea to add the exposure of EFL learners to the TL and improve their language proficiency to improve their metaphorical competence. Every English teacher has paid attention to this point that the subject of metaphor has become fashionable in recent years. Philip (2005) and Konadia (2009) asserted that there are very good reasons for the popularity of metaphors these days. They mentioned that those learners who have access to their metaphorical concepts knowledge and also make use of them would experience the positive effect of this knowledge on their learning and recalling vocabulary, on their ability to recognize the

vocabulary and also they have greater success on understanding and remembering the previous mentioned expressions.

Trosborg (1985) found that the learners' ability to analyze and understand the meaning of unknown metaphorical expressions is correlated with their proficiency in the target language. On the other hand, Johnson and Rosano (1993) concluded that language proficiency doesn't have any relationship with metaphor comprehension. The findings of this study is in sharp contrast with what Johnson and Rosano (1993) claimed and is in full conformity with Trosberg (1985) because the findings revealed a direct correlation between the level of language proficiency and metaphor understanding and use.

5. Conclusions and Recommendations

The results of the present study revealed that the performance of L2 learners with high language proficiency was much better than those with low and average L2 proficiency. In other words, the advanced learners' performance was the best, then the Intermediate level and finally the elementary level students. Through the empirical data it can be inferred that L2 learners do not develop metaphorical competence unless their exposure to that language is high. The higher the language proficiency is, the richer the metaphorical competence will be.

The further results of the study proved that the Elementary level learners with low language proficiency were also low in metaphorical competence since their performance in realizing and also producing the right message and proverb in the researcher-made test was really weak. In comparison with Elementary students, the Intermediate students' performance was much better because they were higher in language proficiency hence, their performance in the researcher-made test regarding the metaphoric language was

better but still in comparable with advanced learners' performance it was average. Finally, through this investigation it can be claimed that L2 learners of high language proficiency, were also high in metaphorical competence; therefore, differences in general proficiency lead to differences in metaphorical competence.

In sum, the results of the present study imply that from the very beginning literacy instruction, including metaphorical language in the text books and teaching methodologies of each second language class is really crucial. It is vital since it can provide learners with a good background knowledge and information; therefore, their general proficiency and metaphorical competence will be strengthened both together.

Finally, the conclusions drawn from this study are limited due to certain shortcomings inherent in a study of this nature. Therefore, the findings cannot be taken as definitive answer to the question of this research. It is the present researcher's hope that the results of this mostly empirically-based study serve as a step in a better understanding of language proficiency and metaphorical competence in L2.

Reference

- Abernethy, D. A. (2002). The power of metaphors for explaining cultural difference sigroups. Eastern group Psychotherapy society, 220.
- Hall Haley, M. & Austin, T. (2007). Content-based second language: An interactive approach to teaching & learning. Chinese edition, Boston, MA; Allyn & Bacon.
- Austin, T. (2010). Teaching and learning foreign languages at school level in the U.S. to become multi-lingual. - Project for Activating Education and Research in Aichi Prefectural University.
- Barker, P. (1996). Psychotherapeutic metaphors: Guide to theory and practice. Bristol, PA: Brunner/Mazel.

- Boroditsky, L. & Ramscar, M. (2002). The roles of body and mind in abstract thought. *Psychological Science* 13, 185–189.
- Butterworth, B. & Beattie, G. (1978). Gesture and silence as indicators of planning in speech. In R.N. Campbell, & P.T. Smith (Eds.), *Recent Advances in the Psychology of Language: Formal and Experimental Approaches*. New York: Plenum, 347-360.
- Cienki, A.(1998). Metaphoric gestures and some of their relations to verbal metaphoric counterparts. In Jean-Pierre Koenig (ed.), *Discourse and Cognition: Bridging the Gap*. Stanford CA: CSLI Publications, 189-205.
- Czander, W. (1993). *The psychodynamics of work and organizations: Theory and application*. New York: Guilford Press.
- Dancygier, B & Sweetser, E. (1996). Conditionals, discourse and alternative spaces. In Goldberg, Adele (ed.), *Conceptual Structure, Discourse and Language*. Stanford: CSLI Publications, 83-98.
- Gibbs, R. W. Jr. (1994). The poetics of mind. In Katz (1998) *Figurative Language and Thought*. Oxford: OUP
- Johnson, J., & Rosano, T. (1993): Relation of cognitive style to metaphor interpretation and second language proficiency, in: *Applied Psycholinguistics*, 14, 159-175.
- Kendon, A. (1995). Gestures as illocutionary and discourse structure markers in outherni conversation. *Journal of Pragmatics*, 23-3: 247-279.
- Kondaiah, K.(2009).Metaphorical systems and their implications to teaching English as a foreign language.
- Lakoff, G. (1993). The contemporary theory of metaphor in A. Ortony (ed.): *Metaphor and Thought*. Cambridge: Cambridge University Press, pp. 202-251. Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago and London: The University of Chicago Press.
- McNeill, D. (1992). *Hand and Mind: What gestures reveal about thought*. Chicago: University of Chicago Press.
- Penn, P. (2001). Chronic Illness: Irvana, Lg and Writing: Breaking the silence. *Family process*, 40 (1), 33-52.
- Rizzuto, A. (2001). Metaphors of a bodily mind. *Journal of the American psychoanalytic association*, 49(2), 535-568.
- Soriano, C. (2005). *The Conceptualization of anger in English and Spanish: a cognitive approach*. Doctoral Thesis, University of Murcia.
- Sweetser, Eve. (1998). Regular metaphoricity in gesture: Bodily-based models of speech interaction. In *Actes du VXiè Congrès International des Linguistes (CIL16) (CD ROM)*. New York: Elsevier.
- Webb, R. (1996). Linguistic features of metaphoric gestures. Unpublished doctoral dissertation, University of Rochester.
- Trosborg, A. (1985): Metaphoric productions and preferences in second language learners, in: Parpotté, W. Dirven, R. (Eds.): *The Ubiquity of Metaphor. Metaphor in Language and Thought*, Amsterdam/ Philadelphia: John Benjamins, 525-557.

تأثیر تفاوت در توانش زبانی فراگیران ایرانی زبان خارجی بر توانش استعاریشان

زهرا رضایی

کارشناس ارشد آموزش زبان انگلیسی، دانشگاه آزاد اسلامی، واحد خوراسگان

Zahrar_64@yahoo.com

علی اکبر جعفرپور*

دانشگاه شهرکرد

Aliakbar_jafarpour@yahoo.com

چکیده

وجود دارد. محقق از بسته نرم‌افزاری SPSS برای محاسبه رابطه بین توانش زبانی و توانش استعاری شرکت‌کنندگان این تحقیق ۱۲۰ فراگیر زبان انگلیسی از مرکز آموزش زبان انگلیسی صدر از گروه سنی ۱۹-۲۵ سال بودند. توانش زبانی شرکت‌کنندگان که از سطح ابتدایی تا پیشرفته متغیر است با تست تعیین سطح آکسفورد تخمین زده شد و برای سنجش توانش استعاری شرکت‌کنندگان از آنها خواسته شد که در تست تهیه شده توسط محقق شرکت کنند. این تست شامل ده مفهوم و هر مفهوم در برگرفته پنج استعاره با معادل فارسی آنها نوشته شده به زبان انگلیسی می‌باشد. با در دست داشتن دو نمره محقق قادر به درک این نکته بود که آیا روابط معناداری میان سطح توانش زبانی دانش‌آموزان و توانش استعاری آنها می‌باشد.

وجود دارد. محقق از بسته نرم‌افزاری SPSS برای محاسبه رابطه بین توانش زبانی و توانش استعاری شرکت‌کنندگان این تحقیق ۱۲۰ فراگیر زبان انگلیسی از مرکز آموزش زبان انگلیسی صدر از گروه سنی ۱۹-۲۵ سال بودند. توانش زبانی شرکت‌کنندگان که از سطح ابتدایی تا پیشرفته متغیر است با تست تعیین سطح آکسفورد تخمین زده شد و برای سنجش توانش استعاری شرکت‌کنندگان از آنها خواسته شد که در تست تهیه شده توسط محقق شرکت کنند. این تست شامل ده مفهوم و هر مفهوم در برگرفته پنج استعاره با معادل فارسی آنها نوشته شده به زبان انگلیسی می‌باشد. با در دست داشتن دو نمره محقق قادر به درک این نکته بود که آیا روابط معناداری میان سطح توانش زبانی دانش‌آموزان و توانش استعاری آنها می‌باشد.