

## **The relationship between learners' creativity and English proficiency among Iranian EFL learners**

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**Abstract**—The present research tends to investigate the relationship between the learners' creativity and English proficiency among Iranian EFL learners. It also tends to reveal whether there is a relationship between the learners' creativity and gender on their English proficiency. It also explores the relationship between the learners' creativity and gender. The participants in this study consisted of 150 undergraduate university students including 46 males and 104 females, majoring in English as a foreign language, from Shiraz Azad University. Two research instruments were used to gather the needed data for this study: 1. Torrance Test of Verbal Creativity. 2. Language Proficiency Test. Correlation coefficient, two-way ANOVA and T-test were used to analyze the collected data and the results were found as follows: 1) There is a significant relationship between the learners' creativity and their English proficiency among EFL learners of Shiraz Azad University. 2) There is no significant relationship between the learners' creativity and gender on their English proficiency among EFL learners of Shiraz Azad University. 3) There is a significant relationship between the learners' creativity and their gender among EFL learners of Shiraz Azad University.

**Keywords**—Creativity, English proficiency, Gender

## I. INTRODUCTION

CURRENTLY there seems to be a huge interest towards the study of creativity. Practically every more or less prominent scientist gives his own understanding of this phenomenon. Guilford's (1966) distinction between convergent and divergent thinking, has perhaps had the most influential effect on how our understanding of creativity has developed [1]. Convergent thinking leads one to arrive at a correct, conventional answer where as divergent or creative thinking involves generating many novel answers and solutions. Torrance in [2] defines creativity as: "sensitivity to problems, deficiencies, and gaps in information; making guesses, formulating hypotheses; evaluating and testing; and communicating results." Reference [3]: "Creativity is marked by the ability or power to create, to bring into existence, to invest with a new form, to produce through imaginative skill, to make or bring into existence something new."

Creativity manifests itself in many different ways and language is certainly one of the most important. Beyond early childhood the use of language, both recognizing it and producing it, is a highly automated ability. The nature of language is such that the vast majority of utterances produced or heard are done so for the first time. Most of what we hear and speak are created rather than recalled from memory. Language is stored as knowledge of speech sounds, of word patterns, and of rules for creating words and stringing them together. Having developed these automated skills and knowledge, language use becomes almost entirely subconscious and almost entirely creative.

According to [4] language has a creative aspect: "Knowing a language means being able to produce new sentences never spoken before and to understand sentences never heard before. All persons who know a language can and do create new sentences every time they speak and are able to understand new sentences created by others."

If we accept that creativity is an inalienable aspect of personality, as all people have creative skills, we understand that we owe a greater respect to this dimension and we should try to include it more thoroughly and consciously in our daily teaching. Fortunately, like most other skills, creative thinking can be learned. Creativity, also, offers the practicing teacher practical and imaginative suggestions which can help to make language learning enjoyable and helps pupils adapt language to deal with some unprepared situations.

Chomsky in [5] expresses: "To Descart and his followers...the only sure sign that another organism has a mind, is its use of language in the normal, creative human fashion..."

Reference [1] cites: "The use of language is perhaps the most common creative act that all human possess and exhibit as a regular part of their daily lives."

## II. REVIEW OF LITERATURE

Guilford (1950) believes that creative thinking involves all the styles of thought, in varying combinations, plus fluency, flexibility and originality [6].

In the American psychology, in the course of which has been most thoroughly, practically all the theories of creativity build on Guilford's "Three-Dimensional model of intellect" (1967) according to which all the intellectual abilities are to some extent creative, but the one most directly related to creativity is the ability of divergent or creative thinking, i.e. the ability to give unexpected and original answers to standardized question of a psychologist test [7].

Since Guilford, many other components have been included in our understanding of creativity. Here are some creative thinking abilities assembled by Bowed, Mc Dougall, and Yewchuk (1994) as in [1]:

*Fluency:* The ability to produce many responses to an open-ended question or problem, such as “how many uses can you think of for a paper clip?” Fluency is the automation or elimination of meta-cognitive behavior.

*Flexibility:* The ability to generate ideas that are unconventional, or to view a situation from different perspectives. Flexibility is adaptive behavior, associated closely with meta-cognitive abilities.

*Originality:* The ability to produce unique, unusual, or novel responses, relative to one's reference group.

*Elaboration:* The ability to add rich and elaborate detail to an idea, and to develop and implement it. Elaboration is synonymous with deep strategic behavior, which is often accompanied by meta-cognitive thought.

*Visualization:* The ability to imagine and mentally manipulate images and ideas, so as to see them from different internal and external perspectives.

*Transformation:* The ability to change one thing or idea into another, to see new meanings, applications, and implications of something already in place.

*Intuition:* The ability to combine parts into coherent whole.

The following qualities have reportedly been found to characterize creative individuals:

1. An unusual awareness of people, events, and problems.
2. A high degree of verbal fluency.
3. Flexibility with numbers, concepts, media, and in social situations.
4. Originality of ideas and expressions; a sense of humor.
5. An ability to abstract, organize, and synthesize.
6. A high energy/activity level.
7. Persistence at tasks of interests.
8. Impatience with routine or repetitive tasks.
9. A willingness to take risks.
10. A vivid and spontaneous imagination, in childhood, this may take the form of “fibbing” or imaginary companions.

Paul Torrance, building on his own understanding of creativity, slightly different from that adopted by Guilford, developed his own system of measuring creativity. He defines creativity as sensitivity towards problems, shortcomings, lacks of knowledge, missing elements, etc, not seen by ordinary people [7]. Understanding creativity as a process provides for revealing abilities to successfully perform it and the conditions that simulate the process. Torrance in [2] states: “Creativity is a complex of traits, skills, and capacities, including the ability to work autonomously, curiosity, unconventional thinking, openness to experience, and tolerance of ambiguity. Highly creative adults exhibit deep knowledge of and a strong bond with their subject matter, as well as intrinsic motivation.”

Creativity and language are deeply connected human abilities. Koestler (1964) expresses that all creative activities, artistic originality, scientific discovery, linguistic creativity and...have a basic pattern in common [8].

Many language experts, on the other hand, confirm the inherent creativity in language and assert that language is creative. They believe that knowledge of a language enables the speakers to combine words to form phrases, and phrases to form sentences, and sentences to form paragraphs, and... .

Language use is rule-governed behavior which enables speakers to create new utterances which conform to the rules they have internalized. The linguist Noam Chomsky in [9] refers to this ability as part of the “creative aspect of normal language use”. A speaker may produce an utterance which has never been heard before in that identical form, and this utterance will be understood by other speakers of the language who have never before heard an identical utterance.

To Chomsky, this “stimulus-free and innovative” property of language is what can not be explained in terms of stimulus and response habit formation and generalization. It can be explained in terms of “an internalized system of rules that can generate an infinite number of grammatical sentences that will be comprehensible and acceptable when uttered with the appropriate lexical items in communication situation.”

Scarborough (1976) Stresses that the most important distinguishing feature of language is that it is creative [10]. Reference [11] summarizes: "One of the fundamental aspects of language that must be accounted for by a grammar is its creativity. Every human language is a creative system in that the system enables its users to regularly produce and understand new sentences— sentences that a particular speaker may have neither heard nor produced in the past."

Creativity and language are deeply connected human activities. Language is inherently creative; there are aspects of creativity in the sentences we produce and in the things we discuss spontaneously [12].

Considering the two main models which try to investigate the nature of language by describing the different linguistic functions proposed by Jakobson and Halliday, point to the existence of a function of the language, which may be called "non-utilitarian" in the sense that it does not aim to communicate [13]. Its role is, nevertheless, of paramount importance as its purpose is to broaden discourse, working with symbolism, and imagination and deepening the meaning. Jakobson in [13] defines it as "poetic function" and underlines its complex, ambiguous and symbolic character, while according to Halliday the "imaginative" function is a fundamental one as it is intrinsically bound to the language itself and it represents as a tool the child uses actively from the very beginning [13].

The poetic or imaginative functions appears as a major component of the language, which proves the complexity of the language phenomenon by underlying the existence of another dimension of the language, a different level beyond the utilitarian, one not aiming specifically at coping with survival needs or communicating with somebody else. This dimension of the language, which many be defined as a "creative" one is seldom taken into serious consideration in foreign language teaching [13].

Creativity can reveal itself in all possible domains and pervade all skills. As far as language is concerned, writing is the most suitable one for several reasons [13]. First, it is a productive skill, and creativity implies taking an active role in whatever a person does, the learning process being no exception in this respect. Secondly, writing is a process which happens over a certain time, thus allowing the learners to work, in general at their own pace, to brainstorm ideas, to draft and redraft, to share, to structure, to evaluate, to review. All this may represent a frame within which creativity is more able to find its way.

### III. OBJECTIVES OF THE STUDY

This study addresses the following research questions:

- 1) Is there a relationship between the creativity of learners and their English proficiency among EFL learners of Shiraz Azad University?
- 2) Is there any interaction of the learners' creativity and gender on their English proficiency among EFL learners of Shiraz Azad University?
- 3) Is there a relationship between the learners' creativity and their gender among EFL learners of Shiraz Azad University?

### IV. METHOD

#### *A. Participants*

150 university students majoring in English as a Foreign Language (EFL) were chosen as the participants out of 160 learners who took part in the study. The subjects were from the Department of Foreign Languages of Shiraz Azad University. They were undergraduate students including 46 males and 104 females. The participants were selected from all four proficiency levels (freshman, sophomore, junior, and senior) so that they could be the true representative of the undergraduates. Since the study did not aim at investigating the effect of major (teaching or translation) as a variable the participants were chosen from the students of both teaching and translation majors.



### *B. Instruments*

The first instrument was Torrance Test of Verbal Creativity. It measures learners' creativity and it consists of sixty items. Each item has three options. The first option in each item shows the least creativity and the last option shows the most creativity, in other words, the first option receives one point, the second receives two points and the third receives three points. So the minimum score is  $60 \times 1 = 60$  and the maximum score is  $60 \times 3 = 180$

According to Abedi (1994) in [14] by adding the scores of four sections, it is possible to obtain a general score for creativity. Torrance Test of Verbal Creativity was constructed by the professors of the University of California in Los Angeles in 1992. To facilitate the task of participants and avoid any misunderstanding of the items, the Persian translation of the test was used in this research.

Haghighat (1999) in [14] applied test-retest method of reliability with the time interval of three weeks by Pearson Correlation Coefficient. The Correlation Coefficient between the first test and retest was 0.75 for the whole test.

Haghighat (1999) in [14] estimated the validity of the present test through the correlation between this test and Torrance Test of creative thinking and it turned out to be 0.43 which was significant at 0.01 level.

The second instrument in this research was language Proficiency Test, which was taken from the book known as the Michigan Proficiency or the Michigan ECPE. This is a standardized test used to measure the proficiency of the students. It contains 35 items: ten cloze, ten grammar, ten vocabulary and five reading items. All of the items are in a multiple choice format. The final score was based on the number of problems answered correctly.

The contribution of the researcher was to calculate the test-retest reliability with 30 subjects from Shiraz Azad University. The coefficient of reliability was 0.84 which was significantly high and the index of correlation indicating the criterion-related validity was 0.75.

### *C. Data Collection*

All the participants were required to take part in two different tests, namely, Torrance Test of Verbal Creativity and Language Proficiency Test. The objective of the study was explained to the participants and they were given enough time to complete them. So, they were expected to answer the items as carefully as possible. After the tests were completed by the participants, they were collected and checked for the completeness and scored. Then the items and the participants' responses were codified and statistical analyses were performed. The collected data were subjected to descriptive statistics.

## V. RESULT

1) Is there a relationship between the learners' creativity and their English proficiency among EFL learners of Shiraz Azad University?

Pearson Correlation Coefficient was used to analyze the relationship between the learners' creativity and their English proficiency, the result was statistically significant, since: ( $r = 0.30$ ,  $n = 150$ ,  $p \leq 0.0001$ , two-tailed). So, there was a significant relationship between the learners' creativity and their English proficiency among EFL learners of Shiraz Azad University.

2) Is there any interaction between the learners' creativity and gender on their English proficiency among EFL learners of Shiraz Azad University?

In the statistical analysis presented below in tables I and II proficiency was a dependent variable and gender and creativity were independent variables. The results were obtained through conducting Two-way ANOVA.

Table I: Descriptive Statistics  
The Interaction of the Creativity and Gender

On Proficiency

	Female	Male	Total
High Creativity	X = 27.84 SD = 5.61 N = 62	X = 26.54 SD = 2.82 N = 13	X = 27.62 SD = 5.24 N = 75
Low Creativity	X = 24.09 SD = 4.10 N = 42	X = 26.36 SD = 5.13 N = 33	X = 25.09 SD = 4.69 N = 75
Total	X = 26.33 SD = 5.36 N = 104	X = 26.41 SD = 4.55 N = 46	X = 26.35 SD = 5.11 N = 150

Table II presents the sums of squares, degrees of freedom and the mean squares of scores for the dependent and independent variables.

Table II: The Two-way ANOVA The Interaction of the Creativity and Gender On Proficiency

Source of Variance	Sum of Squares	df	Mean of Squares	F ratio	Sig. of F
Creativity	104.326	1	104.326	4.2999	0.040
Sex	6.369	1	6.369	0.262	0.609
Interaction of creativity and sex	86.537	1	86.537	3.566	0.061
Error	3542.873	146	24.266		
Total	108069.0	150			

There was a significant relationship between the learners' creativity and their English proficiency. In other words, the learners who get high scores on creativity, get high scores on English proficiency test.

(F (1,146) = 4.29,  $P \leq 0.04$ )

There was not a significant relationship between the learners' gender and their English proficiency. (F (1,146) = 0.26,  $P \leq 0.60$ )  $P = N.S$

And as the table 5.2 shows, there was no significant relationship between the combination of the learners' creativity and gender on their English proficiency among EFL learners of Shiraz Azad University.

(F (1,146) = 3.56,  $P \leq 0.06$ ).

3) Is there a relationship between the learners' creativity and their gender among EFL learners of Shiraz Azad University?

To find out the answer the T-test was used.

Table III: The T-test

Variable	N	Mean	SD	t- value	df	Sig. level
Female	104	140.336	15.935	3.414	148	0.001
Male	46	130.369	17.681			

Table III shows that the mean of the creativity scores of females was equal to 140.34 and the mean of the males creativity scores was 130.37. So the females were more creative than the males. The difference was significant at 0.001 level.

## VI. CONCLUSION

- 1) There was a significant relationship between the learners' creativity and their English proficiency among EFL learners of Shiraz University.
- 2) No significant difference existed between the learners' creativity and gender on their English proficiency among EFL learners of Shiraz Azad University.
- 3) There was a significant relationship between the learners' creativity and their gender among EFL learners of Shiraz Azad University, in other words, the females are more creative than the males.

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