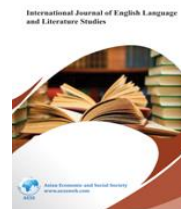




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THE RELATIOEENSHIP BEETWEEN CREATIVITY IN THINKING AND WRITING PERFORMANCE OF IRANIAN EFL LEARNRS ON COMPARISON / CONTRAST

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ABSTRACT

The main purpose of the present study was to determine whether creativity in thinking is significantly related to Iranian EFL learners' writing performance in comparison-and-contrast type of writing. Besides, the researchers attempted to investigate the difference between male and female participants as far as writing and creativity is concerned. One hundred and seven Iranian EFL learners were selected from three universities in Tehran based on availability sampling technique. All the students who were in intermediate level of proficiency were asked to respond to the creative thinking questionnaire and write an essay with a selected topic. Three experienced and trained teachers were asked to rate the essay writing papers of participants analytically. The result of the statistical analysis revealed a significant positive relationship between creativity in thinking and both total and components of writing performance in comparison-and-contrast. Moreover, the findings indicated no significant difference between female and male participants as far as writing and creativity were concerned.

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Keywords: Creative thinking, Comparison, Contrast, Creative ability, Writing performance, Foreign language learning.

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Contribution/ Originality

This study contributes in the existing literature area of foreign language learning in which it is attempted to investigate the relationship between creativity and writing performance of EFL learners on comparison and contrast. This study uses new estimation methodology to probe the

degree of relationship between two variables. Moreover, this study organizes more attention to investigate the difference between male and female for the purpose of more detailed results.

1. INTRODUCTION

It is generally recognized that many EFL learners have difficulties with writing skill in English language. They have big challenges in their writing performance; sometimes these challenges change their writing to a very problematic issue. The difficulty of learners lies not only in generating and organizing ideas, but also in translating these ideas in to readable text (Richards, 2002 as cited in Kaufman (2009)), so that a teacher should implement a flexible program to cater to different learners' needs, and help them to know their abilities and their differences to be able to improve their weak points in the field of writing skill.

Individuals' differences in their abilities and thinking process make them completely different in their writing. In other words, the differences between performances of learners in writing skills might be the result of differences between their levels of creative thinking which should be enhanced in low creative thinkers by instructors through planning specific strategies. According to Pavies (1998 as cited in Runco (2004)), when writing is taught to second language learners, it is generally restricted to fill-in-blank exercises which focus on accuracy rather than composing process. He notes that writing which involves creative thinking process with focuses on communication and self-expression carries many other benefits. Brown (2001) also believes that creative writers want their readers to think about the words they have penned. Directly stated points usually do not require much thought. However, implied meaning demands critical thinking about the ideas penned by the writer. Writing is seen as springing from self-discovery guided by writing on topics of potential interest to writers and, as a result, the approach is likely to be most successful in hands of teachers who write creatively (Hyland, 2003). In this respect, (Kaufman, 2009) states that creative writers focus primarily on the art of writing, or the nature of what they write (the words). They are able to pen powerful words that trigger, in readers, affect (physiognomy), sensory under currents (synesthesia), picture in-the-head (imagine) and other evocative responses. It is worth recalling that in the field of second language writing, expressivism argues the importance of encouraging writers to explore their beliefs, engage with the ideas of others, and connect with readers in writing as a creative act of self-discovery. According to them, all writers have a similar innate creative potential and can learn to express themselves through writing if their originality and spontaneity are allowed to flourish (Hyland, 2003).

This study aimed to follow in the path of creative thinking research and move beyond acknowledging the influence of the creativity on writing, toward exploring whether there is an empirical relationship between creativity and writing performance in comparison-and-contrast writing structures. Also another purpose of the present study was to partially examine whether there is any significant difference between Iranian male and female EFL learners as far as writing and creativity is concerned.

2. THEORETICAL FRAMEWORK

Duffy (1998) believes that the concept of creativity involves the ability to see things in fresh way, learning from past experiences and relating this to new situations, thinking along unorthodox lines, using nontraditional approaches, going beyond the information provided, and create something unique and original. Torrence (1966) also defines creative thinking as the ability to sense problems, make guesses, generate new idea and communicate results. Following above claims, Albert and Kormos (2004) reveal that Guilford is among the first to put forward cognitive processes involved in creativity. According to Albert and Kormos (2004), Guilford (1950) has developed a comprehensive model of human intellect and started to focus on divergent thinking. Guilford (1950, as cited in Albert and Kormos (2004)) suggests that divergent thinking, which is the ability to produce many different ideas in response to a problem, is an operating complementary to convergent thinking, the ability to find the correct solution to a problem. Guilford (1967) relates the expiration divergent thinking to four relatively independent aspects including: fluency, flexibility, originality, and elaboration.

- Fluency is the ease with which an individual use stored information when he needs it. In other words, the ability to use a large number of ideas.
- Flexibility is the ability to produce a wide variety of ideas. In other words, it is the ability a person has to overcome mental blocks, to alter his approach to a problem.
- Originality or novelty is shown by an unusual or rare response. It is the ability to produce unusual ideas.
- Elaboration is shown by a number of additions that can be made to some simple stimulus to make it more complex (Torrance & Safter, 1999 as cited in Runco (2004)).

In the educational domain, Ely (1980) investigated the influence of creativity in thinking on the use of the second language learning strategies among students of Spanish at the university level. In this study, it was theorized that students' use of strategy is influenced by creative thinking process in the ways that lower creativity leads to relatively greater reliance upon the L1 when using the language and strategies that focus on specific details are used more by students low in creativity. In accordance with Ely (1980), Kazamia (1998) tried to assess the degree of tolerance of ambiguity as one significant aspect of creative thinking process that Greek Civil Servants demonstrated when learn English as a foreign language. The results indicated that because of differences between participants' degree of creativity, their tolerance of ambiguity in all skills and in all language learning strategies was different.

In addition, in investigating the role of creativity in teaching and learning second language, Mc-Lain (1993) found that individuals who were more creative, were also more willing to take risk and more receptive to change in ESL classes. Loveless, Burton and Turvey (2006) explored how a conceptual framework for creativity with information and communication technology (ICT) might be developed and expressed in professional development for primary education pre-service and newly qualified teachers. For the purpose of this study, one of the areas in which creativity is a relevant topic can be a more specific type of cognitive demand of writing performance:

comparison–and contrast type. As Ally and Bacon (1999 as cited in Hyland (2003)) mention, in writing an effective comparison and contrast essay, the topic sentence should identify both items (subjects) to be compared or contrasted and tell the reader exactly what is going to say about these items. When writers decide on a good topic sentence, they should list all the points of comparison and contrast, organize all details in a logical sequence, and begins a rough draft. Finally, the most effective conclusion for this type of essay is a final sentence, which reinforces the controlling idea. Ally and Bocon (1999 as cited in (Hyland, 2003) also believe that ordering details in a compare-and-contrast essay requires some thought that is an evidence for the importance of creative thinking process in this type of writing. In the area of second language writing, Moore (1985) examined the problem solving process in a writing task with students. The study found that writing performance with more creative thinking process was associated with a number of objects explored, and the time spent in the prewriting phase. Albert and Kormos (2004) also examined how different moments of evaluation in the process of writing performance affected the creativity of the production among English learners. Finally, Allison (2004) explored what students and teachers in one setting had to say about creativity and related topics as they commented upon academic writing in a university English language degree program. He found that only a small number of comments included the word creative or a cognate term; this makes it possible to report all data selected on the key word basis. With a focus on previous studies, it can be understood that they expressed the impact of creative thinking process in the second language writing performance, but did not express the tendency of putting individuals' different levels of creative thinking and its relationship with the writing performance to the test. Besides, another problem with the researches can be lack of attention to different types of writing performance for a researcher to examine the issue more precisely. In other words, to get a better picture of the relationship between creative thinking and second language writing, a researcher should extend his or her focus from mostly a general view to writing skill to a narrower view in writing.

The present study aimed to analyze the extent to which the amount of creativity integrated well with writing of EFL learners influence their writing performance in comparison-and-contrast type of writing performance.

To address the purpose of this study, our research questions were:

1. Is there any significant relationship between creativity in thinking and comparison-and-contrast paragraph writing performance of Iranian EFL learners?
2. Is there any significant difference between male and female learners as far as creativity and writing are concerned?

3. METHODOLOGY

This study enjoyed a correlational design through which the degree of relationship between two variables including creativity as independent variable and L2 writing skill as dependent variable was explored from a quantitative approach.

3.1. Participants

To collect the needed data for this study, 190 intermediate students were selected based on their scores on Michigan test of proficiency from among BA students of different universities in Tehran, Iran. All 190 students were given a creativity questionnaire and a paragraph writing task, however, 107 subjects (48 male, 59 female) completed the writing performances successfully and were chosen for conducting the study.

3.2. Instruments

The following materials were used for the purpose of the study:

Proficiency test: The first testing instrument in this study was Egbert and Jessup (1991). Reviewing the related literature revealed the Cronbach's Alpha for this test was equal to 0.91 that shows a high reliability of this test.

Creativity Test: The standardized creativity test questionnaire (O'Neil and Abedi, 1996) which was used in this study is a questionnaire with 60 multiple-choice items with three choices. For scoring, 1, 2, and 3 points were allotted to the 3 choices of a, b, c respectively. The Torrance Test of Creative Thinking and Abedi Test of Creativity were administered simultaneously to the student of secondary schools in Tehran and the results showed a correlation of 0.46 between TTCT and ATC which reflects the plausible criterion-related validity of the test. Moreover, the Cronbach's Alpha for total creativity was equal to 0.85 which showed a high reliability, besides reliability coefficient for creative fluency was 0.85, for creative originality it was 0.82, for creative flexibility 0.84, and for elaboration it was 0.80 (Auzmendi *et al.*, 1996).

Writing task: Participants were asked to write a comparison-and-contrast writing using a prompt (Compare women and men as friends). The participants were required to generate, organize, and support their ideas, and use cohesive devices in appropriate way.

3.3. Research Procedure

First, a standardized Egbert and Jessup (1991) was administered to initial participants in order to classify them in terms of their general language proficiency. Then, a validated creativity questionnaire (O'Neil and Abedi, 1996) test of creativity was given to subjects in order to measure their level of creativity. In order to know and measure the ability of participants in writing performance, a comparison-and-contrast paragraph writing task was used as a prompt with a pre-selected topic: "Compare women and men as friends". The participants were told to write at least 250 words for the writing activity and they were not allowed to use a dictionary during composition writing. Besides, the researchers answered the participant's questions prior to administration of the writing tasks.

The papers were rated according to Jacobs *et al.* (1981) analytic scoring scale by three experienced teachers who were familiar with scoring paragraphs. The raters separately assigned scores to the content, organization, vocabulary, languages, mechanics, and total quality of composition following Jacobs *et al.* (1981) ESL composition profile and their average scores for

each of the components were the participants' score on that part. In order to ascertain the reliability of composition scores, inter-rater correlation was computed for each section.

4. RESULTS

This study aimed at investigating the relationship between creativity and one type of writing task, i.e. comparison-and-contrast, and also probing any significant differences between male and female participants as far as their creativity and writing tasks were concerned. According to [Filed \(2009\)](#), in order to make any sound statistical conclusions, four assumptions must be met: interval data, independence, normality and homogeneity of variance. First, the present data were measured on an interval scale. The second assumption, independence of subjects, was also met because no treatments involving peer or group works were administered in this study. The assumption of normality was not met. The results of the Kolmogorov-Smirnov indicated that (except for creativity and organization section of comparison-and-contrast) none of the tests enjoyed normal distributions. As displayed in Table 1, the *p*-values for Kolmogorov-Smirnov tests were lower than .05. Thus, the non-parametric tests of Kendall correlation and Mann-Whitney tests were run to probe the research questions posed in this study.

Table-1. Normality Test

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Creativity	.067	107	<u>.200</u>	.990	107	.620
Content CC	.109	107	<u>.003</u>	.940	107	.000
Organiz CC	.083	107	<u>.069</u>	.943	107	.000
Vocab CC	.110	107	<u>.003</u>	.954	107	.001
Lang CC	.102	107	<u>.008</u>	.951	107	.001
Mech CC	.203	107	<u>.000</u>	.893	107	.000
Total CC	.128	107	<u>.000</u>	.943	107	.000

Note. The Shapiro-Wilk test is used for sample sizes below 50 ([Filed, 2009](#)).

4.1. Inter-Rater Reliability Indices

The Cronbach's alpha reliability indices for probing the agreement between the three raters' scorings of the writing tests all indices ranged from .91 for organization section of comparison-and-contrast to .82 for vocabulary section of comparison-and-contrast.

Table-2. Reliability Statistics

		Cronbach's Alpha	N of Raters
Compare And Contrast	Content	.83	3
	Organization	.91	3
	Vocab	.82	3
	Language	.85	3
	Mechanics	.88	3

4.2. Investigating the First Research Hypothesis

Null hypothesis1: There is no significant relationship between creativity in thinking and comparison-and-contrast paragraph writing performance of Iranian EFL learners.

A *Kendall correlation* was run between scores of creativity in thinking and scores of writing performance in comparison- and-contrast in order to probe the degree of correlation between two types of variables among EFL learners. As displayed in Table 3, the creativity showed significant correlations with the components of compare-and-contrast writing tests;

- a) Content (Kendall's $\tau = .53$, $P < .05$),
- b) Organization (Kendall's $\tau = .62$, $P < .05$),
- c) Vocabulary (Kendall's $\tau = .65$, $P < .05$),
- d) Language (Kendall's $\tau = .62$, $P < .05$),
- e) Mechanics (Kendall's $\tau = .68$, $P < .05$),
- f) Total Compare-and-Contrast (Kendall's $\tau = .72$, $P < .05$).

Thus the first hypothesis was rejected.

Table-3. Kendall Correlation; Creativity with Compare-and-Contrast Paragraph Writing Tests

		Creativity	
Kendall Correlation	ContentCC	Correlation Coefficient	.53**
		Sig. (2-tailed)	.000
		N	107
	OrganizCC	Correlation Coefficient	.62**
		Sig. (2-tailed)	.000
		N	107
	VocabCC	Correlation Coefficient	.65**
		Sig. (2-tailed)	.000
		N	107
	LangCC	Correlation Coefficient	.62**
		Sig. (2-tailed)	.000
		N	107
	MechCC	Correlation Coefficient	.68**
		Sig. (2-tailed)	.000
		N	107
	TotalCC	Correlation Coefficient	.72**
		Sig. (2-tailed)	.000
		N	107

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

4.3. Investigating the Second Research Hypothesis

Null hypothesis 2: There is no significant difference between male and female learners as far as creativity and writing is concerned.

An independent *t-test* was run to compare the male and female subjects' means on creativity. The parametric test of independent *t-test* was used because creativity scores were normally distributed (Table1). As displayed in Table 4, the male students ($M = 80.50$) showed a higher mean on creativity than female subjects ($M = 78.31$)

Table-4. Descriptive Statistics; Creativity by Gender.

	Gender	N	Mean	SD	SEM
Creativity	Male	48	80.50	10.78	1.55
	Female	59	78.31	14.282	1.859

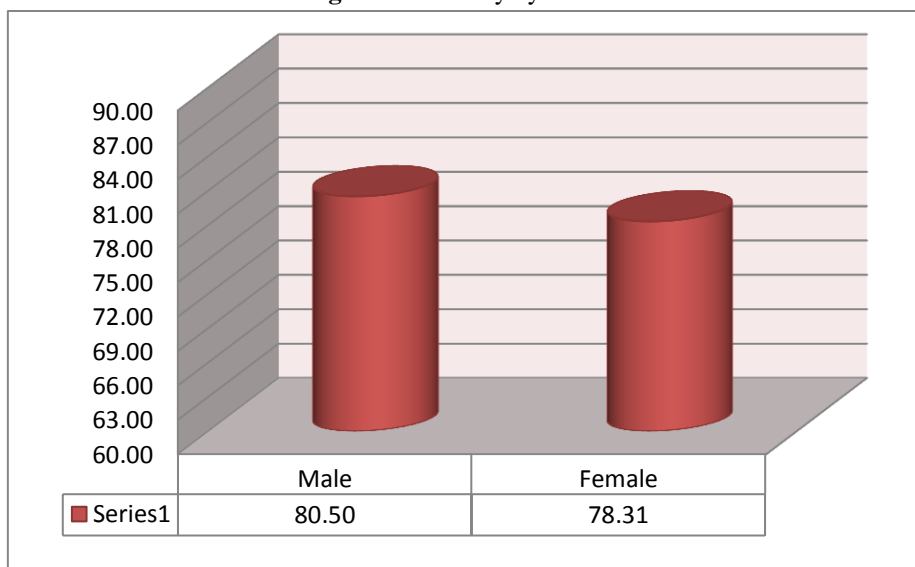
The results of the independent *t-test* ($t(105) = .88, p > .05; R = .086$) with a weak effect size indicated that there was not any significant difference between male and female subjects' means on creativity, so hypothesis was supported.

Table-5. Independent Samples Test; Creativity by Gender

	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% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	3.442	.066	.880	105	.381	2.195	2.495	-2.752	7.142
Equal variances not assumed			.905	104.471	.368	2.195	2.425	-2.614	7.004

It should be noted that the assumption of homogeneity of variances was met. As displayed in Table 5, the Levene's *f*-value of 3.44 was not significant ($p > .05$). That is why the first row of Table 5, (i.e. Equal variances assumed) was reported.

Figur-1. Creativity by Gender



4.4. Investigating the Third Research Hypothesis

Null hypothesis 3: There is no significant difference between male and female learners as far as comparison-and-contrast writing performance is concerned.

The *Mann-Whitney test* was run to compare the male and female subjects' performance on the total compare-and-contrast writing test. As Table 6 displays, the median scores for male and female subjects on compare-and-contrast writing test were 62.38 and 58.42 respectively.

Table-6. Mean Ranks and Median Scores; Compare-and-Contrast Writing Test with Gender

	Gender	N	Mean Rank	Sum of Ranks	Median
Total CC	Male	48	59.44	2853.00	62.38
	Female	59	49.58	2925.00	58.42
	Total	107			

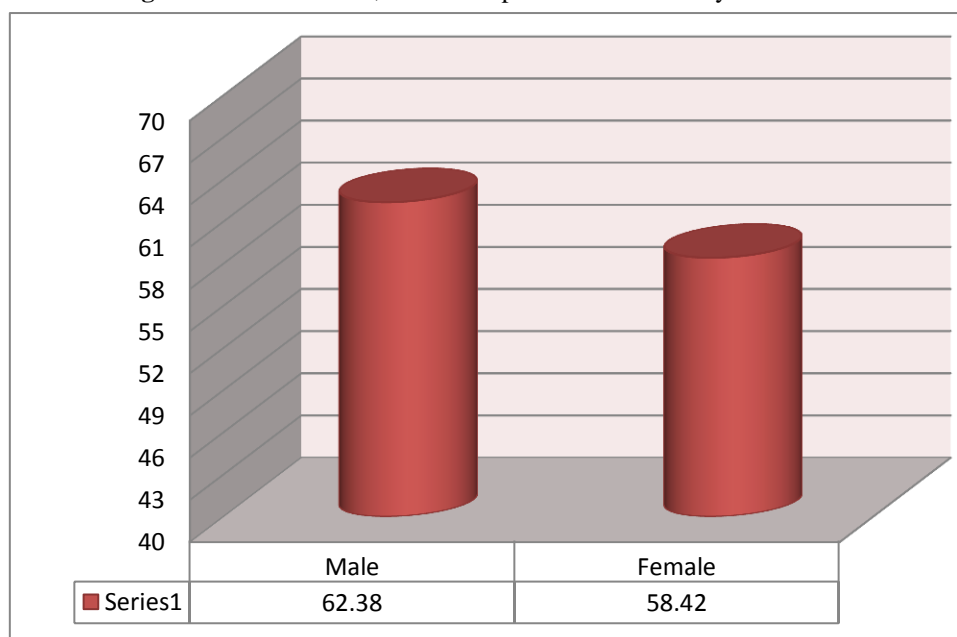
The results of the Mann-Whitney test ($Z = -1.63$, $P > .05$) indicated that there was not any significant difference between the male and female subjects' performance on the total compare-and-contrast writing test, hence the null-hypothesis was supported.

Table-7. Mann-Whitney Test Statistics: Compare-and-Contrast by Gender

	Total CC
Mann-Whitney U	1155.000
Wilcoxon W	2925.000
Z	-1.635
Asymp. Sig. (2-tailed)	.102

a. Grouping Variable: Gender

Figure-2. Median Scores; Total Compare-and-Contrast by Gender



5. DISCUSSION AND CONCLUSION

The research questions in this study were concerned with the significance of relationship between creativity in thinking and writing performance of Iranian EFL learners. According to the results obtained in this study, the relationship between the two different abilities involving creativity and overall section of writing performance in comparison-and-contrast shows a high degree of correlation between them. This result confirms that of Otto (1998) who found a significant positive relationship between creativity and second language learner performance in the way that in communicative tasks learners used their imagination to construct their own ideas.

In addition, the result reveals that not only learners' overall section of writing performance was positively related to their creativity in thinking, but also all components of writing performance (content, organization, language use, vocabulary, and mechanics) were positively related to their creativity. Learners' performance in all sections of writing was a determination of their degree of creativity. The more the learners were creative, the more familiarity they had with the language lexis and structures, and expression of idea in writing task; therefore, they were able to write a better essay. Moreover, attempts were made to probe the significant difference between male and female learners as far as creativity and writing is concerned. The results of independent *t-test* and Mann-Whitney test indicated that there was not any significant difference between male and female subjects' means on creativity and writing performance in comparison-and-contrast. The finding of this study supports the notion that creativity has positive impact on learning second language especially on improving writing ability in comparison-and-contrast type of writing among Iranian EFL learners. This notion seems more acceptable as it can be claimed that language writing is a creative act.

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