

Creativity Impact on Language Achievement: A correlational study of Iranian EFL learners

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Abstract. This study investigated the correlation between Creativity and Language Achievement (LA) among Iranian EFL learners from three different Iranian universities. Learners were invited through census sampling technique to participate in the study. General English questions (adapted from a university entrance exam) and Self-report Creativity Test designed by Rand Sip et al. (1979) were employed for collecting data on LA and creativity, respectively. Questionnaires were distributed among the learners/participants during the class hours by prior arrangement with them and their teachers, and were collected a few days later. SPSS statistics software was used to find the relationship between the study variables. Overall, 103 learners, aged 18 to 27, returned the questionnaires for analysis. The creativity scores ranged from 134 to 210 and the LA scores were between 0 and 16. The Pearson correlation coefficient test revealed no significant correlation between the participants' creativity and their language achievement ($r = -0.136$, $p = 0.17$).

Keywords: Creativity; EFL learners; Iran; Language Achievement (LA).

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1. Introduction

The question of why some EFL (English as a foreign language) learners/students are more successful than others has primarily inclined towards personality differences. Educational psychologists have long been engrossed in predicting academic achievement, and a lot of research has been conducted on the relationship between creativity and language achievement (Chamorro-Premuzik, & Furnham, 2003; Bratko, Chamorro-Premuzic, & Saks, 2006; Laidra, Pullmann, & Allik, 2007; Pople, 2014; Sayadian, & Lashkarian, 2015; Malomsoki, 2016). Previous findings regarding this topic, however, are divergent, where some researchers have found significant correlation between the creativity and language learning outcomes and some others have not. Given such an inconsistency in the findings of prior studies, one may question the extent to which cognitive abilities can affect learners' academic performance. When it comes to creativity, the divergence in findings is even more observable, where Plucker, Beghetto, and Dow (2004) described that creativity is a 'fuzzy' concept, the predictive role of creativity in determining language learning has yet to be proved.

Creativity has been defined in various manners by different scholars. Sarsani (2006) explained creativity as a construct with a complex nature. Matsouka, Trevlas, and Zachopoulou (2003) described it as a multi-aspect sense that could be assessed as a personality feature or creative behavior. Sawyer, John-Steiner, Moran, Sternberg, Feldman, Csikszentmihalyi and Nakamura (2003) defined creativity as a problem-solving procedure and not a personal attribute. Boden (2004) argued that creativity is a productive concept or feature, but Carter (2004) contended that it is similar to a new functionality that could have various natures. Some other researchers like Sternberg and Lubart (1995) and Runco (2004) stated that personality features and personal credits such as high endurance of vagueness, interest in risk-taking and unconventionality are among the fundamental elements that describe creativity and crea-

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tive behavior. In the same line, creativity has also been defined as a common talent (Bamber, 2012). Some researchers argue that all humans can be creative and try to enhance this talent (Asadi, 2006).

For some, creativity is the use of imagination and original ideas to solve problems (Lugtu, Jr, 2018). Hayes (1990) also defined creativity as “the potential of persons to produce creative works whether or not they have produced any work as yet” (Page 1). Some other definitions have also been established. For Guilford (1950), creativity is a cognitive process, while Sternberg (2001) defined it as a concept that consists of Intelligence, Mental methods, Personality, and Motivation.

Language achievement or language proficiency is another concept that has been reviewed in the last century many times. It is regarded as a psychological, cultural and even physical trait of the person who wants to learn a tongue and usually coincides with wisdom, language and language learning (Salahshour, Sharifi & Salahshour, 2013; Akhter, 2014; Ghaedi, Taghi Poor Zahir, Gholi Ghourchian & Jafari, 2014; Isazadegan, Jenaabadi, & Sa'adatmand, 2014; Mahmoodi, Mohamadian, Ghasemi & Fallah, 2015; Homayouni, Abdollahi, Hashemi, Farzad & Dortaj, 2016). Lots of research has been carried out concerning language learning procedures and language achievement (Dörnyei, 2005; Albert, Nikolove & Horvath, 2006; Nosratinia & Zaker, 2013); however, the way they define and apply it differs.

According to Canagarajah (2006), English language achievement is the knowledge of norms related to native English and all other existing forms of English. Canagarajah (2006) argued that the capability to use these various norms flexibly is necessary, and highlighted that it is vital to acknowledge the systematic and legitimate position of different varieties of English within the diverse family of languages.

2. Literature Review

From an international perspective, to date, several studies have been conducted on the relationship between creativity and LA; however, inconsistent findings exist, where some studies have found a positive correlation and some others showing no association (Edwards & Tyler, 1965; Inggårde, 2014; Malomsoki, 2016; Sadykova & Shelestova, 2016). More recent studies of creativity and LA show that creativity correlates with LA. For example, Inggårde (2014) studied the intentional implementation of a creative method in an EFL context and examined its effect on the EFL students' learning (in terms of using more different vocabulary, writing more original scripts, and using more story elements like story goal, obstacle, character motive). The author also investigated whether increasing students' motivation can enhance their activity and attention. Findings of this study indicated that the learners who exposed to creative methods (1) designed and implemented more story elements, (2) had more variety in the use of lexical items, (3) wrote more creative stories, and (4) showed more attention and were more active than the students who exposed to the regular teaching methods. McDonough, Crawford and Mackey (2015) explored the relationship between creativity and second language use in a group problem-solving exercise. The authors found a positive relationship between creativity of the students and their development of questions and coordination but no relationships was found between creativity and other language features such as pronouns, subordinate reasoning clauses and conditionals.

Tsai, Horng, Liu, Hu and Chung (2015) reported that while positive learning environments associate with intrinsic motivation and creativity, negative learning contexts negatively affect intrinsic motivation and creativity. Sadykova and Shelestova (2016) studied the possibility of enhancing students' creativity by means of the foreign language. Results of their study showed that techniques developed to boost students' creativity are effective and lead to the improvement and increase of the students' creative abilities.

Säälik (2014) investigated the effect of learning strategies on students' reading literacy performance to find the sources of the variation in students' reading literacy performance with regards to the student and school level. Findings of this study depicted that students' awareness of learning strategies explains about 30% of the school-level variation and about 20% of student-level variation; that learning strategies play an essential role in explaining the differences in students' reading test results; and that gender affects the implementation of learning strategies.

Akhter (2014) examined the impact of creative writing on language learning and made a comparison between Bangla and English mediums by interviewing 40 students in both mediums. The study findings showed that students of both mediums enjoy creative writing classes and that these classes influenced their language learning and could be utilized as a productive language-learning tool.

In another study by Malomsoki (2016), the researcher sought to disclose the effect of second language acquisition on the performance of the Hungarian learners of English (dual-language school students and non-language specialized students) in the tasks that required creativity and linguistic creativity. The study showed no significant correlation between creativity and linguistic creativity, even though having daily contact with the English language could positively affect linguistic creativity. Earlier, Edwards and Tyler (1965) also concluded that creativity is not in a relationship with academic achievement.

In the Iranian context, some researchers have also investigated the impact of students' creativity level on their LA. Nosratinia, Mojri and Sarabchian (2014) explored the relationship between creativity and language

learning strategies of 140 EFL learners of an Islamic Azad university majoring in English translation and English literature. Their findings indicated that a significant relationship exists between the total use of language learning strategies of the EFL learners and their creativity; that social strategy has a strong predicative emphasis on creativity; and that the affective strategy and metacognitive strategy can increase the severity of such a predicative relationship.

Mahmoodi, Mohamadian, Ghasemi and Fallah (2015) investigated the possible relationship between life quality and creativity of the teachers within the work environment. They found that a significant positive relationship exists between the teachers' work-life quality and their creativity. There was also a strong relationship between teachers' creativity and their decision-making tasks; the more their engagements in the School affairs, the greater their innovation incentive becomes. Akbari (2015) also explored how creativity affected the choice of cognitive strategies of 60 upper-intermediate language learners' during reading comprehension. This study revealed that learners' creativity has a direct and significant correlation with cognitive strategies.

Homayouni, Abdollahi, Hashemi, Farzad and Dortaj (2016) explored the relationship between creativity and language anxiety and learning English. They showed that there is a negatively significant correlation between components of creativity and English communication anxiety and English test anxiety but there is a positive and meaningful relationship between the components of creativity and learning English. In another study, Hemmati and Sadeghi (2015) investigated the relationship between intelligence ability types and learners' foreign language achievement. They showed that learners with higher verbal intelligence have higher language achievement. Rezaei and Almasian (2007) investigated the relationship between creativity, language learning strategies and language proficiency, and showed that creativity, to some extent, predicts the use of learning strategy and language proficiency but strategy use did not predict language proficiency.

Salahshour, Sharifi and Salahshour (2013) investigated the relationship between the selection of learning strategies, frequency of learning strategy use, and the learners' gender and their level of English proficiency. Their study showed that Iranian high school learners use learning strategies with medium-frequency; meta-cognitive strategies are most commonly used whereas cognitive strategies are least commonly used; proficient learners use significantly more learning strategies as well as metacognitive and social strategies; and that females use learning strategies more frequently than males. At the same time, Shokrpour and Seddigh (2013) studied the relationship between Iranian EFL students' creativity and their use of vocabulary learning strategies. They found a significant positive relationship between creativity and their use of vocabulary learning strategies.

Isazadegan, Jenaabadi, and Sa'adatmand (2014) studied the relationship among cognitive emotion regulation strategies, emotional creativity and academic performance, and the mental health of university students. Findings of this study indicated that mental health has a significant negative correlation with inefficient cognitive emotion regulation strategies and self-deprecation considering issues but there was no significant relationship between emotional creativity and mental health. No correlation was found between students' mental health and their emotional creativity.

Overall, the review of the literature disclosed that the research on the relationship between creativity and language achievement of learners is inconsistent. While some of the previous research shows that creativity has a statistically significant relationship with language learning outcomes of the students in different educational contexts around the world, the results of some other studies are different. Methodological differences, task varieties, participating groups and different educational context may cause such a variation in research findings. To date, few studies have addressed the impact of creativity on learners' language achievement in an Iranian educational context. Using different data management instruments, this study aimed to explore the predicative relationship that might exist between creativity and language achievement of Iranian EFL learners in 2017. It seems necessary to conduct a similar research within an Iranian context to verify the findings of the previous literature and shed more lights for future studies. Exploring the correlation of learners' creativity with their learning is important and invites us to reconsider both theory and practice.

3. Methodology

A descriptive-correlational research design was used to explore the relationship between the creativity and language achievement of Iranian EFL learners.

A population of 138 learners from three universities – including Shiraz University, State University of Shiraz and Payam-e-Nour University of Shiraz – were selected and invited through census sampling technique to participate in this study. The three universities were located in the Fars province, and delivered courses on Teaching English as a Foreign Language, English Language and Literature, and English Translation. A total of 107 questionnaires were returned for analysis but only 103 questionnaires were considered for an in-depth analysis.

The validated, Farsi version of Rand sip Self-report Creativity Test was employed to collect data on creativity. The test is a 50-item self-report measure of creativity in which items were scored on a 5-point Likert scale (1: Strongly agree, 2: Agree, 3: Neither agree nor disagree, 4: Disagree, and 5: Strongly disagree) with a minimum and maximum score of 50 and 250, respectively (Rand sip et al., 1979; Kazemi, 2002). The reliability of the questionnaire was

calculated by Cronbach's alpha coefficient test with a value of $\alpha=0.73$, and the validity was confirmed by experts in the field. The test was assessed to be suitable for the given purpose. To measure LA, General English Test questions adopted from the Iranian 2013 university entrance exam, were used. These questions had already been validated by the Iranian educational officials.

The questionnaires/scales were distributed among the learners during class hours by prior arrangement with their teachers. The collected data were fed into and processed by SPSS program for in-depth analysis. Descriptive statistical tests, Pearson Product-Moment Correlation analysis and Pearson correlation coefficient were used to analyze the relationships between the study variables. The significance level was set at 0.05 throughout. Ethical approval was obtained for all participating universities prior to conducting the research.

4. Findings

A total of 103 learners participated in the study. Their creativity scores ranged from 134 to 210, with mean and SD values of 165.53 ± 15.34 , respectively. Their LA scores ranged between 0 and 16, with mean and SD values of 6.92 ± 3.25 , respectively. Table 1 depicts the descriptive statistics of the study variables in terms of Range, Min, Max, Mean, Standard Deviation (SD) and Variance.

Table 1. The Descriptive statistics of the study variables

Variable(s)	N	Range	Min	Max	Mean	SD	Variance
Creativity	103	76.00	134.00	210.00	165.53	15.34	235.33
Language achievement	103	16.00	.00	16.00	6.92	3.25	10.60

A Pearson Product-Moment Correlation analysis was conducted to answer the research question about the relationship between creativity and EFL learners' language achievement (Table 2). The analysis of the data showed no significant correlation between the creativity and language achievement of the Iranian EFL learners ($r=-0.136$, $P=0.170$).

Table 2. The correlation between Creativity and Language Achievement of EFL Learners

Variable(s)		Creativity	Language achievement
Creativity	Pearson Correlation	1	-.136
	Sig. (2-tailed)		.170
	N	103	103
Language achievement	Pearson Correlation	-.136	1
	Sig. (2-tailed)	.170	
	N	103	103

5. Discussion and Conclusion

This study was conducted to determine the relationship between creativity and language achievement of Iranian EFL learners. The study revealed no statistically significant relationship between the creativity of Iranian EFL learners and their language achievement. While this finding is consistent with the results of some of the previous studies (Edwards & Tyler, 1965; Malomsoki, 2016), some contradictions exist (Inggårde, 2014; Homayouni, Abdollahi, Hashemi, Farzad & Dortaj, 2016; Sadykova & Shelestova, 2016).

The very answer of the question that was proposed in this study contradicts, to some extent, with what have previously been documented by other researchers. Yet, despite this opposing result, language learning strategies, as indicators of creativity, might directly relate to the quality of cognitive processes and second language learning; and creativity is also believed to be a potential factor that affects language learning outcomes (Oxford, 1990; Rezaei & Almasian, 2007; Shokrpour & Seddigh, 2013; Nosratinia, Mojri & Sarabchian, 2014; Santamaría Pérez, 2017; Santana-Quintana, 2017). According to Oxford (1990), language learning strategies facilitate the way learners process new information and understand or remember different items.

Nonetheless, the findings of the present study are consistent with those of some of the past research where no positive relationship was found between creativity and language achievement of the learners/students. Using different measures of task performance, Albert and Kormos (2011), for example, have investigated the role of creativity in learners' narrative task performance. Considering the three aspects of creativity, i.e. fluency, originality and flexibility, the authors came up with divergent findings. According to this study, there was no significant relationship between creativity and aspects of accuracy, complexity and lexical variety; however, it was found that creativity moderately affected participants' output in narrative tasks. Fluency proved to be positively correlated with learners' performance, and originality was found to negatively influence their oral narrative task performance.

Differences in sample size; participants' age group, gender or year of study; education context and task performance are more likely to explain the inconsistent findings regarding the impact of creativity on language learning outcomes. The inconsistent findings in prior research may also relate to the other confounding or intervening variables that can change the outcomes. A comparison of the research findings in this field reflects that creativity is better conceptualized as a multidimensional/multifaceted than a one-dimensional/simplistic measure or trait of language achievement. Dietrich (2019) and Glăveanu et al. (2019), for example, stressed that creativity is a complex, multi-dimensional and situated concept that can be articulated in several ways and not just in theoretical terms. Complexity is an umbrella term for which multiple components of a system or situation interact synergistically in non-linear, dynamic paths that are dependent on their initial conditions and the context in which relationships and consequences are not easily predictable but evolve over time (Baghbanian, Hughes, Kebriaei, & Khavarpour, 2012; Baghbanian, Torkfar, & Baghbanian, 2012).

Future research is recommended to take into account all the above differences and other possible influential factors within the study field. As an example, the current study did not investigate the role of gender difference while analyzing the relationship between creativity and language achievement. According to the previous studies, level of language learning strategy use differs between female and male learners in learning a course in general and learning a language as a second or foreign language in particular (Salahshour, Sharifi & Salahshour, 2013; Säälk, 2014). That is why future research is recommended to take into account all the contextual variables that might affect the process of language learning and acquisition.

This study is limited to a small sample size and a single, specific context which may produce bias. To confirm the findings of this study, it is recommended to organize other investigations with more participants and different types of tasks, instruments and designs to be able to generalize the findings to other contexts. It is also wise to conduct similar studies in different contexts to compare and contrast the results. The current study was conducted in the city of Shiraz, Iran, which might produce differing results if it is conducted within another educational context.

This study, however, is distinguished from the previous inquiries in that it employed a different instrument for data collection and analysis. Contrary to most of the previous researches, this study used Rand sip et al. (1979) Self-report creativity measure to collect data on creativity as a single monolith variable without any sub-variables for language achievement. To the best of our knowledge, no other studies in the context of EFL had investigated creativity likewise. Considering creativity as a single whole, the present study could bypass the assumptions made regarding its overall impact on language achievement, whereas most of the previous literature in this field has regarded creativity as an overarching concept which includes several components, and investigated their impact on the language learning (Albert & Kormos, 2011; Homayouni, Abdollahi, Hashemi, Farzad & Dortaj, 2016; Malomsoki, 2016; Sadykova & Shelestova, 2016). Investigating the role of each creativity subscale per se may pale its overall effect on language achievement. Varying results may be obtained if a variable is sub-divided into several constructs and investigated through its constituents.

Although the findings of this study showed no significant relationship between the creativity and language achievement of EFL learners, it has implications for policy and practice. Syllabus designers, course planners, material developers and education providers including teachers and institutions must put more emphasis on the creativity of the learners and help them in designing self-tailored learning strategies so that their achievement can improve.

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