نشریّـــهٔ ادب و زبـــان
دانشکدهٔ ادبیات و علوم انسانی
دانشگـــاه شهیـــد باهنر کرمان
دورهٔ جدید، شمارهٔ ۲۷(پیاپی۲۴) بهار ۸۹

بررسی ارتباط دانش زبانی با هوش و خلاقیت دریادگیری زبان خارجی(علمی – پژوهشی) *

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چکیده

هدف این تحقیق ، یافتن چگونگی ارتباط بین دانش زبانی با هـوش و خلاقیـت دریادگیری زبان خارجی است. بدین منظور ۸۰ دانشجوی کارشناسـی دانشـگاه اصفهان به عنوان آزمایش شوندگان مورد بررسی قرار گرفتند. به منظور سنجش میزان دانش زبانی، هـوش، و جنبـه هـای شخصـیتی ایـن افـراد از آزمونهـای متعددی استفاده شد. با استفاده از روشهای آماری مشخص شد که دانش زبانی با هوش ارتباط مثبت دارد ولی بین خلا قیت با هـوش یـا دانـش زبـانی ارتبـاطی نیست. یافته های این تحقیق می تواند برای پژوهشهای آینده راهگشا باشد.

کلیدواژه ها : یادگیری زبان خارجی، دانش زبانی، هوش و خلاقیت

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*تاریخ ارسال مقاله : ۸۶/۱۰/۳۰ تاریخ پذیرش نهایی مقاله :۸۸/۲/۱۹

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The Relationship between EFL Learners' Proficiency, Intelligence, and Creativity

Introduction

Knowledge of language has been considered as the principle basis of intelligence (Oller, 1981a). Also, intelligence has been considered as one of the important factors affecting learning in general, and learning of language in particular. Regarding learning in general, Brown (1994, p. 93) says, “It seems that success in education and in life on the whole correlates directly with the level of individual’s intelligence". In connection with learning a second language, intelligence has been mentioned as an effective factor (Stern, 1984; Kassaian, 1998), and it can be claimed that an intelligent person, due to his/her talent, learns a second language with more success (Brown, 1994). Many scientists believe that general intelligence and linguistic knowledge have a positive correlation (Oller & Perkins, 1978). Genesee (1976) found that intelligence has a high correlation with reading, vocabulary, and grammar of French language; and Extrand (1977) confirmed the relationship between comprehension through reading, dictation, and composition.

There is a growing acceptance that understanding the way students learn should be the key to educational improvement. And there has, for sometime, been a shift of interest from the language to the language learner. As a consequence, there came an interest in the learning process, and studies concerning the learners' learning styles emerged. Many researchers have studied personality traits and cognitive styles of second language learners. Celce-Murica (2001) stated that language learning style is one of the factors that help to determine how the students learn a second or foreign language. Self-esteem, for example, is a personality trait which has shown to be related to second language achievement. Krashen (1981) mentioned the relationship between self-esteem and oral production in ESL performance.

The relationship between intelligence and personality variables has received less attention of research topics. It would be interesting to know if a person, for example, whose level of creativity is higher is more intelligent than a person with lower level of creativity.

Considering the variables mentioned above, this research aims at finding answers to the following questions:

1. Does intelligence affect FL learning?
2. Does creativity affect FL learning?
3. Does the level of intelligence affect creativity?

Concerning the above questions the following answers can be hypothesized:

1. An intelligent person learns a FL with more success.
2. There is a relationship between creativity and FL learning.
3. There is a relationship between intelligence and creativity.

Method

Participants

Eighty undergraduate students having different fields of study were randomly selected from departments of Education, Arts, Sciences, and Engineering in the University of Isfahan, Iran as subjects for this study. The mean age of the subjects was 19.5 years and 93% of them were unmarried.

Instruments

Several tests were administered to check English language proficiency, level of intelligence, and the level of creativity of the subjects. Oxford Placement Test (OPT) composed of 100 multiple-choice questions, which is a widely used standard test, was employed to assess their English language proficiency. Raven's Progressive Matrices, which are widely used non-verbal intelligence tests, were used to assess their level of intelligence. In each item of this test, one is asked to find the missing part required to complete a pattern. Each set

of items gets progressively harder, requiring greater cognitive capacity to encode and analyze. The test is normalized to be used in Iran (Baraheni, 1972) and the reliability and the validity of it has been approved for Iranian students (Molavi, 1993). To assess the subjects' creativity, a test based on Torrance creativity test (1993) was used. This test, which included 60 multiple-choice questions, highly correlated with other tests of creativity, and its validity and reliability for Iranian context is confirmed (Abedi, 1993).

Procedure

Eighty boys and girls were randomly selected from among 2162 first year students of different majors studying at Isfahan University, via computerized lists provided by the Admission Department of the university as subjects of the study. The subjects first completed personal questionnaires answering questions regarding their age and marital status. Then, the subjects were tested regarding their creativity as a personality trait. The subjects' English proficiency and intelligence were also measured. The subjects were tested in group sessions and were allotted the same amount of time for completing the tasks. Since six of the students did not complete the OPT, the number of subjects was reduced to 74. When the subjects completed the abovementioned tests, the relationship between these measures was assessed through Pearson Product Moment Correlation Tests.

Results

The three hypotheses of the study were addressed separately, and the results were conducted in detail.

Addressing Hypothesis Number One

This hypothesis states that an intelligent person learns an FL with more success. In order to test this hypothesis the subjects' grades obtained from OPT and those obtained from Raven

test of intelligence were correlated. Table 1 shows that the correlation is significant (r =.383, P =.019).

Table 1 .Correlation between Intelligence and English Proficiency

		Intelligence
OPT	Pearson Correlation	.383*
	Sig. (2-tailed)	.019
	No.	74

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

Table 2 shows descriptive statistics for all the correlated data.

Table 2.*Descriptive Statistics of Creativity, English Proficiency and Intelligence*

	No.	Mean	SD
OPT	74	38.8378	11.5915
Intelligence	74	117.1892	11.3133
Creativity	74	138.6216	13.3736

OPT = Oxford Placement Test

The first hypothesis is, therefore, confirmed. More intelligent people learn an FL more successfully.

Addressing Hypothesis Number Two

This hypothesis states that there is a relationship between FLL and creativity. In order to test this hypothesis the grades that the subjects had obtained from Torrance creativity test were correlated with the grades obtained from OPT. The results showed no significant correlation between language proficiency and creativity (r =.217, p =.196) (table 3).

Table 3.*Correlation between Creativity and English Proficiency*

		Creativity
OPT	Pearson Correlation	.217
	Sig. (2-tailed)	.196

	No.	74

OPT = Oxford Placement Test

Hypothesis number two is, therefore, rejected. There is no correlation between creativity and FL learning.

Addressing Hypothesis Number Three

This hypothesis states that there is a relationship between intelligence and the level of a person's creativity. In order to test this hypothesis the grades that the subjects had obtained from Torrance creativity test were correlated with the grades of the subjects on the Raven Test of Intelligence. The results showed that intelligence has no significant correlation with creativity (r =.061, p =.721) (table 4).

Table 4. *Correlation between Intelligence and Creativity*

		Creativity
Intelligence	Pearson Correlation	.061
	Sig. (2-tailed)	.721
	No.	74

Therefore, hypothesis number 3 is also rejected. There is no relationship between the level of intelligence and creativity of a person.

Discussion

The present research was conducted to find out if there is a relationship between EFL learner's proficiency, intelligence, and creativity as a personality trait. To achieve this goal, first, intelligence and English language proficiency of the EFL learners were correlated. Results showed that these two factors correlated significantly (r =383, p =.019) (table 1). Therefore, the first research question was answered positively. More intelligent university students learn a foreign language with more success than their less intelligent peers. This finding is in agreement with previous findings (Genesee, 1976; Extrand, 1977; Oller &

Perkins, 1978; Stern, 1984; Brown, 1994; Kassaian, 1998) which claim that intelligence and linguistic knowledge have a positive correlation.

The correlation between intelligence and L2 learning can be looked at from two angles. Hereditarians believe that intelligence is a predictor of L2 learning. Goodenough (1926, p.393), for example, wrote that "those nationality groups whose average intellectual ability is inferior do not readily learn the new language". Looking from the other angle, some scholars stated that learning a second language could have a positive influence on cognitive development (Peal & Lambert, 1962), and on the child's developing intelligence (Rosenberg, 1987). As the findings of the present research confirm the correlation between FLL and intelligence, English language teaching policy makers may want to provide opportunity for English language learners to start learning a foreign language at elementary schools when the learners are at earlier stages of cognitive development.

To find an answer to the second research question, English language proficiency was correlated with a personality variable, namely, creativity. Results showed no significant correlation between language proficiency and creativity (Table 3). Therefore, the answer to the second research question was negative. It can be stated, therefore, that university students can learn English regardless of their level of creativity. The findings of the present research disagrees with Krashen (1981) who found a relationship between self-esteem and oral production in ESL performance, It should be noted that the two researches were different regarding the personality aspects being inspected, the type of English knowledge being measured, and the type of subjects' level of bilingualism. Doing research in different environments could shed more light on this issue. This finding also disagrees with that of Torrance et al (1970) who showed an advantage for bilingual children over their monolingual peers on measures of divergent thinking skills and creativity. It should be noted, however, that their subjects were balanced bilingual children compared to monolingual children, while the subjects in the present study were university students learning English as a foreign language. Conducting a research in future which would

compare bilinguals of elementary, intermediate, and balanced levels could shed more light on this issue.

To find an answer to the third research question intelligence and creativity were correlated. The results indicated no correlation between intelligence and creativity. This is a very interesting outcome which assumes that people regardless of their level of intelligence can be creative.

Researches concerning creativity show that creativity can be both taught and developed (Torrance & Torrance, 1973; Feldhusen et al, 1986), and Torrance (1972) mentions 142 researches showing the teachability of creativity, and Guilford considers creativity as "divergent thinking in solving problems" while in his opinion, divergent thinking is a type of thinking that "travels in different directions" (Guilford, 1950, 1959, 1967; Guilford & Haepfner, 1971). McIntyre (1993) suggests that creativity can be encouraged through students various creative exercises.

Recently, there seems to be a profound interest in developing creativity as a function of Artificial Intelligence (AI). Creativity has been considered an intrinsic function of replicating human cognition. It involves innovation which has not been fully replicated in technology. Systems have been developed to make decisions, but so far, these decisions have been predictable. Creativity involves the unpredictable. Hoorn (2002) believes that computer programs can be taught to be creative by programming knowledge resources, and similarities between objects and ideas to create novel approaches and things. Computers can be taught, in future, to act as intelligent beings having personality aspects of human beings.

Conclusion

The purpose of this study was to find out if there is any relationship between language proficiency, intelligence, and creativity of the EFL learners. To achieve this goal, Isfahan University undergraduates from different fields of study were selected as subjects. Several tests were given to the subjects to measure their level of proficiency, intelligence, and creativity.

Then language proficiency, intelligence and creativity were correlated.

The results showed that language proficiency correlated with intelligence. This shows that more intelligent students can learn English as a foreign language better than less intelligent students.

Language proficiency did not correlate with personality types measured in this research. Measuring the relationship between language achievement and other personality traits in future could shed more light on this issue.

Intelligence was found to have no correlation with creativity. This may suggest that people regardless of their level of intelligence can be creative and that more intelligent people are not necessarily more creative ones.

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