Predictors of Vocabulary Achievement: Testing a Model of Life Syllabus and Web-Based Language Teaching

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Abstract
This research was done to investigate the effect of life syllabus and web-based language learning on the vocabulary improvement of the study participants and to seek the attitudes of the learners on the use of web-based approach in language class based on life syllabus. Michigan test (version 1997) was presented and students were divided into one experimental group who learned their course vocabularies making use of free vocabulary learning sites of IELTS English language learning site every day for 8 weeks based on life issues and one control group who received ordinary classroom instructions each session. The results appeared to manifest that learners’ perception improved by incorporating web based instruction in language learning classroom based on life syllabus. The findings indicated a significant difference between the experimental and control groups with regard to their vocabulary knowledge. Web-based language teaching instruction enhanced EFL learners’ vocabulary knowledge. As Life Syllabus proved to be useful with Iranian EFL learners, EFL teachers also can adopt the technique in their classes to advance their students' language learning and improve their memory. This paper addressed important issues in life education. It showed that a systematic effort in providing robust and theoretical-based training based on web based language teaching is necessary. By considering the importance of life syllabus and web based language teaching, this paper had begun an initial effort in designing training for teaching vocabularies.

Keywords: Life syllabus, Web-based language learning, Vocabulary retention

Introduction
It is important to consider the challenges involved in learning vocabulary items because it is the main component of learner’s linguistic competence. This is because both the number of words (i.e. breadth) and the quality (i.e. depth) of vocabulary knowledge are measured. Accordingly, learning lexical items involves various learning processes, and as evidence suggests, using effective vocabulary teaching methodology is crucial to ensure learners retain new vocabulary knowledge. In other words, the teaching practices employed in the classroom must ensure that students not only learn but also acquire new lexical items of the target language (Fahim & Kamali, 2011). Using these methods, learners have to rely on their instructors and not to participate in classroom activities (Shafaei, 2008). These kinds of methods do not naturally enhance L2 learners’ vocabulary knowledge. Although with the advent of technology and internet new ways of learning have been created, little improvement has been experienced in teaching methods. Put it differently, vocabulary instruction strategies remain uninteresting and ineffective despite ample of opportunities and there is little focus placed on active vocabulary learning process (Kamyab, 2007).

Higgins (2012) claimed that with the advent of web-based information technology, L2 instructors are provided with many effective tools and resources that they can employ to increase the quality of their teaching. It is becoming easier now to extend learning outside the classroom so as to enhance the effect of learning activities. Nowadays, information technology and the Internet provide instructional resources that assist teachers and students in analyzing the learning materials,

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evaluating their own successes, and identifying the core of the materials that is worth learning.

Weblogs, as one of the technological tools, have attracted the attention of many researchers within the field (e.g., Glen, 2003; Richardson, 2004; cited in Jang, 2016). Weblogs are considered as a quickly expanding form of communication and publishing on the Internet. As such, web-based learning has become an important part of L2 learning by decreasing traditional in-class, teacher-centered teaching approaches (Kim, 2006) as it permits students to design their own content and keep in touch with an online community so as to collaborate and share professional and academic knowledge. With the advent of the internet and web technologies during the past decade, L2 teaching and learning has become one area that has experience a major impact of advances in commuting and communications technologies (Kilickaya & Krajka, 2010).

Moreover, enhancing L2 vocabulary knowledge, in particular, has been the main focus of all these innovations in the process of language learning/teaching. Learning vocabulary items is claimed to be fundamental to language acquisition and many practitioners have pointed to its significance for L2 learners (e.g., Ramachandran & Abdul Rahim, 2004; Walters, 2004; cited in Lee, 2000).

Following this line of investigation, the present study attempted to provide learners and teachers with some insights into the effectiveness of web-based language learning/teaching approach on L2 lexical learning and retention of Iranian EFL learners based on life syllabus rules. The aim of this study was also to measure the efficiency of using online web-based learning approach versus traditional offline approaches in teaching lexical items for Iranian pre-intermediate EFL learners. In fact, the main objective of the present study was to find out the possible superiority of one learning approach over the other in enhancing the level of vocabulary acquisition and retrieval of EFL learners.

Web-based Instruction and Online Vocabulary Learning System

Many researchers and practitioners have pointed to the importance of computer technology (e.g., Chang & Lehman, 2002; cited in Son, 2001; Guthrie & Richardson, 1995). According to Smith (2004), computer technology can provide students with the means to construct meaning, to control their own learning and to evaluate and monitor their own performance. In general, it focuses on multimedia computers and the Internet as two important multimedia developments. In L2 learning process, learners prefer to apply various technological tools or hypermedia (Sokmen, 1997).

Among the various existing technological tools, weblogs have attracted the attention of many scholars (e.g., Glen, 2003; Richardson, 2004; cited in Shahivand & Pazhakh, 2012). Weblogs are a relatively recent and quickly expanding form of communication and publishing on the Internet. As such, web-based learning has the potential to become an indispensable part of learning by augmenting traditional in-class, teacher-led education. This is because blogs allow individuals to develop personal content and connect with an online community, which enable them to collaborate and share knowledge (Shafaei & Abdul Rahim, 2015).

Accordingly, web-based learning began to attract the attention of researchers (e.g. Dlaska, 2002; Lin & Hsu, 2001; Liou, 2001; Liou & Yang, 2002; Sun, 2003). Theoretically, Web-based instruction is a suitable environment for learning language. Web-based language learning is a type of learning that involves the use of the Web and exploits Web materials, resources, applications or tools (Son, 2007). Given that web-based language learning occurs with Web activities on the Web, it is important to use well-designed web-based activities to maximize language learning. It allows teachers to practice with their students individually or in small groups (Cited in Bagheri, 2012).

Many studies have been conducted to investigate the effect of web-based instruction on language learning. As an example, Stepp-Greany (2002) examined students’ perceptions of using multimedia for language instruction. She found that most of the students agreed that instruction was facilitated in the multimedia environment. In another study, Al-Jarf (2004) investigated the effects of Web-based learning and conventional learning on EFL learners’ writing. He found that using Web-based instruction as a supplement in conventional classes has significant effects on writing structure. The study also examined the effects of instructional technology and distance learning. Based on the results, a significant causal relationship was found between students’ learning and on-line instruction. It was reported that the experimental group performed better than the comparison group.

Generally, web-based instruction can propose multiple dimensions of use in education (Kahn, 1997). Kahn (1997) referred to eight frameworks for meaningful learning in Web-based learning; Pedagogical; Technological; Interface design; Evaluation; Management; Resource Support; Ethical and Institutional. Later, Kahn (2001) proposed a framework for using Web-based instruction ranging from “macro” to “micro” uses. All these have one feature in common; i.e., Internet or World Wide Web. It provides language teachers with network-based teaching environments in which they can create meaningful tasks.
and use various materials for language learners. The hypermedia nature of the World Wide Web, in particular, has greatly expanded the power of computer assisted language learning (CALL) by allowing learners to explore and discover their learning paths themselves and offering them easy access to an on-line database of resources (Al-Seghayer, 2001).

A growing tendency to use the Internet as a means of delivering computer-assisted vocabulary acquisition has led to the shift of focus onto the design and implementation of online vocabulary-oriented learning management systems. Intentional study of vocabulary, based on learner-made word lists supported by accompanying interactive vocabulary exercises, all create appropriate conditions for learners to improve their language skills in the target language (Aist, 2002).

As Chun (2001) demonstrated, reading and vocabulary learning in a Web-based environment can be facilitated by a program-internal glossary, an online bilingual dictionary and an audio narration of the text. An important feature exploited by Chun in the research was tracking the use of online multimedia support resources to provide more individualized study support. In the mobile-assisted learning context, analyzing learner access logs to the vocabulary activities led to the formulation of a personal learner profile in terms of the vocabulary that they had difficulty with, so that these items could be presented to the learners more frequently than items that were less likely to cause learners problems (Al-Jarf, 2007).

Dreyer and Nel (2003) described an even more elaborate vocabulary environment, termed Varsite (i.e., a Learning Content Management System), a multiuser environment where lecturers can create, store, reuse, manage and deliver digital learning content from a central object repository, equipped with the features of dynamic delivery interface, an automated authoring system, track and report progress tools and the learning object repository. A more open character of an online vocabulary learning system was emphasized by Ariew (2006), who describes the design and use of a software template to generate hypermedia texts for use by foreign and second language students, with the aim of generating teaching materials and providing an easy way to display target or native language annotations of all kinds, including text, graphics, audio recordings and video as needed to illustrate the meaning of the text.

**Vocabulary Learning and Technology**

In L2 learning process, Ellis (1994) stated that vocabulary teaching/learning is a very complicated and challenging process. As such, L2 learners do their best to find out the vocabulary learning technique that is more beneficial for them. However, memorizing the new vocabulary item is their first approach in vocabulary learning. Clearly, beginner learners prefer to learn items separately by using a list of word items to memorize, whereas advanced learners attempt to acquire words in their context (Akhlaghi & Zareian, 2015). In general, teaching vocabulary items is limited to presenting new words as they appear in any activity without preparing the learners through activation of their background knowledge or assisting them in revising the previously learned vocabulary items until they are completely learnt. Accordingly, computers have been employed in the L2 instruction process in order to overcome this restriction and provide learners and teachers with better opportunities and a variety of activities. The significant impact of computer-assisted instruction on developing reading comprehension skills and learning lexical items has been reported in numerous studies.

Considering the vocabulary instruction through technology, many practitioners of the field (e.g. Dodigovic, 2005; Yoshii, 2003) have claimed that vocabulary has been one of the most commonly taught language areas through technology in recent years. Genc (2012), for example, stated that the rapid dramatic advancements in computer technologies have been affecting all aspects of language learning in general and vocabulary component in particular for more than two decades. Genc (2012) also believed that among the most important L2 learning areas that have been affected by this huge improvement were the reading skill and lexical items.

Gorjian, Moosavinia, Ebrahimi and Hydarei (2011) stated that vocabulary teaching is in line with the profound changes taking place in other areas of knowledge and advances in network technologies. The researcher further claim that this has resulted in the emergence of virtual worlds designed to facilitate synchronous (online), rather than asynchronous (offline), learning activities and practices among students (Gotjian, et al, 2011). As such, it can be claimed that technology can be employed to help students and teachers learn and teach L2 vocabulary items more effective. According to Long and Doughty (2009), technology can be used to increase the quality of input, to provide useful corrective feedback and train students in the use of technological advances that are fundamental skills in learning another language vocabulary items.

**Applied ELT and Life Syllabus**

The framework of this research was based on Pishghadam’s Applied ELT and Life Syllabus. Pishghadam’s paper (2011) changed ambit of ELT for
thinking about foreign language studies and its own educational nature. Pishghadam (2011) claimed that it is perhaps time to have revision in applied linguistics and ELT. Therefore, he presented a new notion of Applied ELT into the field of English language teaching and learning via a superiority seen in the educational ambit of ELT classes. Pishghadam and Zabihi (2012) highlighted distinctive features including, (a) discussing a large number of social, scientific, and political topics, (b) holding pair work and group work in class, (c) comparing two cultures, (d) getting acquainted with the words and grammar of another language, (e) speaking in another language in which one can show their own real self, (f) taking language learning very seriously, and (g) having a funny and friendly atmosphere for learning.

Pishghadam (2011) proposed a new horizon to ELT, called applied ELT that can contribute to other domains of knowledge such as psychology and sociology. It provides learners and teachers with several features of ELT classes in order to boost several life skills. Furthermore, life syllabus was introduced to language teachers to give more precedence to life skills in ELT classes (Pishghadam & Zabihi, 2012).

Applied ELT, with the aim of sending Life Syllabus as a map for the ELT community to consider the improvement of these life skills prior to language learning, was further expanded by Pishghadam and Zabihi (2012). ELT classes can therefore be suitable places for life skills training programs. Life skills training is a valuable extra practice in general education and in ELT in order to try to make learners ready for meeting the life’s challenges such as anxiety, stress, depression, and other educational needs, on the other hand, it can also improve the learning process by improving mental and physical memory of the learners (Pishghadam & Zabihi, 2012).

Pishghadam and Zabihi (2013) presented English for Life Purposes (ELP) as a new notion in English language teaching. They discussed that the focus of teaching English as a second/foreign language has changed from considering learners’ specific needs in study to improve their life qualities that enable the learners to compare their home culture with other cultures and emboss their identities. It not only allays the learners’ anxiety, depression, or other negative aspects of life while it also enables the teachers to improve the learners’ emotional, intellectual and motivational abilities while teaching them a second/foreign language.

On the other hand, Khan (1997) defined Web-based Instruction (WBI), as a type of CALL system as a “hypermedia-based instruction program which utilize the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported” (p.6). It makes the learners capable of sharing and updating the information almost instantaneously because it is dynamic in nature. WBI is regarded as a very effective retention tool for colleges and universities worldwide since it makes learning possible regardless of geographic location or time of day (Aist, 2002).

Considering the above-mentioned points, the current study aimed to answer the following research questions:

1. To what extent do web-based vocabulary instruction strategies affect Iranian EFL learners’ level of L2 lexical knowledge?
2. What is the attitude of the Iranian EFL learners on the use of life syllabus and web-based vocabulary learning activities and strategies in the language class?

Method
The research design is quasi-experimental including pre and post-tests. The experimental group was instructed using web-based language learning in a class based on life syllabus and the control group used the ordinary classroom instruction of learning vocabulary. The independent variable is using web as a facilitative device and the dependent variable is improving vocabulary knowledge of the learners.

Participants
The participants were selected from 100 Iranian EFL students. They were male and female language learners who studied in pre-intermediate level at Iran Language Institute (ILI). All the participants ranged in age from 18 to 20. All the participants were nearly from the same economic and social backgrounds. The participants then took the Michigan language proficiency test, which is a standard general proficiency test, to assure the homogeneity of the students’ general proficiency. This test was presented to assure the participants same level of proficiency and finally 66 learners were selected for this research.

Instruments
In order to obtain measureable data with which the results of the current study could be statistically analyzed, the following instruments were utilized:

Michigan language proficiency test (MTELP)
MTELP is an assessment of grammar, vocabulary, and reading implemented at Oakland Community College for determining second language proficiency. The Michigan test is a standardized test designed to assess international students’ English proficiency. Similar to the TOEFL test, it is for adult non-native speakers of English who needed to use English for academic
purposes at the college and university level. Standard English Language proficiency as a test to determine the students’ level of language proficiency includes three parts: part I is a grammar test; part II is a vocabulary test and part III is a reading comprehension test. All the participants took the test in a limited time.

Pretest-posttest

The researcher sets the task of answering the research null hypothesis of the present study by selecting homogenous participants to leave out the receptive vocabulary learning as a control variable. Therefore, he obtained the consent of 66 Iranian EFL learners at Iran Language Institute (ILI). This study was done with one experimental and one control group. The homogenized participants were divided into one experimental group (n=33) and one control group (n=33). As for the receptive vocabulary learning, in the pretest phase, the learners were asked to take the Nation's 14000 version Vocabulary Size Test (1000, 2000 and 3000 word family level, each level having ten questions). The posttest was administered to experimental and control groups at the end of the course. The Nation's 14000 version Vocabulary Size Test measured the receptive vocabulary size.

Questionnaire

In the last session, in order to investigate learners’ perspectives on Web based vocabulary learning a questionnaire was administered. The questionnaire was adopted from Altiner (2011) and Bulut and Farhan (2007) respectively. The purpose of the questionnaire was to discover information about the participants in the experimental group. The questionnaire, run in the first session, focusing on the participants’ personal information based on nine Likert-scale items (from strongly disagree to strongly agree) to measure learners’ ability in using computer or the internet, their comments about vocabulary learning and the role of the technology in this process. The purpose of the questionnaire was to discover two types of information about the participants in the experimental group.

The first section of the questionnaire, run in the first session, focused on the participants’ personal information based on nine Likert-scale items (1=strongly disagree, 2=disagree, 3=not sure, 4=agree, 5=strongly agree) to measure learners’ ability in using computer or the internet, their comments about vocabulary learning and the role of the technology in this process.

The second section of the questionnaire was used to determine participants’ reworks, attitudes and feelings about the WB vocabulary teaching based on life issues through 10 Likert-scale items. This test was administered in the last session. Both sections of the questionnaire were adopted from Altiner (2011) and Bulut and Farhan (2007) respectively.

These acquire numerical measurements of questionnaire and Nation’s 14000 version Vocabulary Size Test were correlated through Pearson-moment-correlation test coefficient (r) to assess the degree that quantitative variables are linearly related in a sample. The values of the Pearson Correlation range from -1 to +1 with negative numbers representing a negative correlation and positive numbers representing a positive correlation.

Procedure

In the learning phase, the participants learned their course vocabularies making use of free vocabulary learning sites of IELTS English language learning site for 8 weeks. The classes were held two sessions a week, each session one hour and a half in the computer room of school; 10 new words were introduced to the learners every session. Yet, they had the option to choose the number of words they wanted to review each session. For this study, learners were said to review at least 10 words a session, but they had the chance to increase this number according to their own pace.

As a homework practice, the students had the chance to use the IELTS vocabulary learning sites which were an instrument in teaching procedure, based on the spaced repetition learning system and life syllabus aims at helping learners to review target words for a short period of time every day. Students could have access to computers every day. They were informed that IELTS vocabulary learning website is free and they can use their laptops at home individually. Students in control group received ordinary classroom instructions each session. In the control group, the same textbook vocabularies were taught through synonyms, exemplifications and practicing vocabulary. In order to teach the new vocabularies, the learners were asked to close their books and then the following steps were taken. The first step consisted of reading aloud each vocabulary item two or three times then, a short pause was made so that the students could learn the correct pronunciation.

The second step included reading out each vocabulary two or three times again, and allowing the students to repeat the words. In the third step the students were requested to open their books to the intended page and only listen to the teacher as the vocabulary items were read out to them. The last step consisted of going through the word list and explaining each word by
presenting examples and writing the synonyms and antonyms on the board.

**Findings**

Considering students’ pre and posttest scores on Nation’s 14000 version Vocabulary Size Test, Means and standard deviations for pre- and posttest academic scores were analyzed to see if there was a statistically significant difference between the two tests grades or not (Table 1).

<table>
<thead>
<tr>
<th>Control group</th>
<th>Experimental group</th>
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<tr>
<td>N</td>
<td>Means</td>
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<tr>
<td>66</td>
<td>Pre</td>
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<td>Post</td>
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The results showed that there were statistically significant differences between the averages of the two control and experimental groups in Means and standard deviations.

The data strongly suggested that vocabulary learning website can increase the EFL learners’ vocabulary development. It is worth mentioning that the results were obtained under the condition that both groups had equal amount of vocabulary practice and the only difference was the application of vocabulary learning website based on life syllabus in experimental group and textbook vocabularies in control group. For more clarification of the positive effect of websites on vocabulary development of EFL learners, the acquired results of pre-and post of the experimental group are compared in Table 2 through independent sample t-test.

**Table 1.**

Means and Standard Deviations

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<td>66</td>
<td>Pre</td>
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<td>Post</td>
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**Table 2.**

Independent samples T-test for vocabulary size pre-post-test grades of EFL participants

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>Levene's Test for Equality of Variances</th>
<th>T-test for Equality of Means</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
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<tr>
<td></td>
<td>F</td>
<td>Sig</td>
<td>T</td>
<td>Df</td>
<td>Sig (2-tailed)</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>1.310</td>
<td>.260</td>
<td>-4.624</td>
<td>38</td>
<td>.000</td>
</tr>
<tr>
<td>grade equal variances not assumed</td>
<td>-4.624</td>
<td>37.263</td>
<td>.000</td>
<td>-1.00000</td>
<td>.21628</td>
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The independent sample T-test procedure (Table 2) offered two tests of the comparison between the significance index of the Levene statistic was greater than .05; it could be assumed that the both tests had equal variances.

Based on Table 2, there was a significant difference between the mean differences of the vocabulary size test scores of participants before and after the treatment in terms of their vocabulary development tests because the Sig (2-Tailed) value is less than .05. So, we can conclude that there is a statistically significant difference between the two conditions \( p < 0.05 \).

For the second phase of data analysis, the hypothesis stating that the EFL learners do not have a positive attitude towards the use of life syllabus and web in their language class was tested by making a correlation between experimental group learners vocabulary size post-test grades and their answers to a five-point Likert scale questionnaire regarding students’ perspectives towards incorporating web as a facilitative device on the increases, the other also increases. The closer the value is to -1 or +1, the stronger the association is between the variables. In this research, the researcher hypothesized a positive relationship between the learners Vocabulary Size Test scores and their attitudes towards the use of life syllabus and web in the language class.
As it is shown in Table 3, there were statistically significant correlations (The p-value, Sig.000 < .01) between learners’ vocabulary post-test results and questionnaire acquired results.

Discussion and Conclusion

Recently, conventional computer-assisted language learning (CALL) has gradually outstripped web-based language learning (WBLL) (Son, 2008). These findings are in line with Pishhadam (2013) who believed that life skills should be incorporated in ELT curriculum. Participants who use Internet for ESL learning had positive attitudes toward web-based language learning (WBLL) and they showed that to be interested in additional activities in and outside class time (Son, 2008).

Regarding the research findings, students' attitudes toward the incorporating web as a facilitative device on the vocabulary development of the learners and using life syllabus as a new map to use life issues in ELT curriculum have come to an answer that students in general have developed a positive attitude toward using web based education.

The findings of the study also support many researchers' claims in terms of the learners' perception after using a computer-based program for increasing the speed and amount of vocabulary. The results of current study are compatible with those achieved by Altiner (2011).

Naraghizadeh and Barimani (2013) explained the effectiveness of CALL on Iranian EFL learners' vocabulary learning and their findings indicated a significant difference between experimental and control group with regard to their vocabulary knowledge. CALL instruction enhanced EFL learners' vocabulary knowledge.

This research was done to investigate the effect of learning vocabulary via web based vocabulary learning software based on life syllabus rules by intermediate EFL students in Iran and its contribution to learners’ perception. The result manifested that learners’ perception improve by incorporating web based instruction in language learning classroom based on life syllabus. The findings indicated a significant difference between the experimental and control groups with regard to their vocabulary knowledge. Web based learning instruction enhanced EFL learners' vocabulary knowledge. The comparison between the students' scores showed that there was a significant difference in the final performance of two groups. Therefore, this study supports the idea that Life Syllabus rules are essential for learning vocabularies and improving memory of the learners.

From a pedagogical perspective, the findings of this study may offer some implications for language teaching and learning. To begin with, these findings can be beneficial for language learning curriculum designers to present tasks that enrich both the language of the students and their motivation to apply on-line web sites for autonomous learning of language.

The experience with computers is an influential factor in instructors’ personal views of computer integration. It is clear that students’ use of technology is limited to a small range of activities; however, “flexible, autonomous, lifelong learning is essential to success in the age of information” (Warschauer & Shetzer, 2003, p.176), and the role of technology in achieving this kind of learning cannot be underestimated. Students through English learning web sites have numerous opportunities such as reflecting on communicating with their companions from all over the world via chat programs which may be text-based or video-based, and studying through authentic materials (Godwin-Jones, 2011).

Hajebi (2018) discussed that life syllabus is as a clean cut map to focus on students’ interest. He also yielded compelling reasons to argue that participants based on life syllabus performed more efficiently compared to their peers and indicated better results.

The subsequent recommendations are presented hoping that other researchers would find them interesting enough to pursue in the future. This study can be repeated to find out whether the same results would be obtained or not.

While the study focused on vocabulary learning as the predicted variable, it is suggested to take other skills into account in other researches. Since different age

<table>
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<tr>
<th>Vocabulary size test</th>
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<tr>
<td>Pearson Correlation size test</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td>66</td>
</tr>
<tr>
<td>Pearson Correlation QT</td>
<td>.952</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
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groups have different personality features, the same study could be carried out among students at different age range and language proficiency levels. Future research may examine computerized instruction on different language skills such as reading and writing.

**References**


