LITERATURE, LINGUISTICS & CRITICISM | RESEARCH ARTICLE

The effect of otus social educational network on english achievement and attitudes of Iranian high school EFL learners

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Abstract: Educational networks become the most popular form of instructional technology during the past decades. The effect of this educational technology on the teaching English methodologies has been significantly increased all over the world. The main aim of this study was to investigate the effect of Otus social educational network on the English achievement of Iranian high school English as a foreign language (EFL) learners. It also attempted to find out students’ attitudes towards the use of Otus application. To this aim, fifty male language learners were selected based on convenience sampling as the participants of the study. While the lessons and assignments were presented through Otus in the experimental group, the students in the control group had a traditional class. Finally, to explore the learners’ attitudes towards the application of Otus, a questionnaire was used. It was found out that the application of Otus had a significant effect on the English achievement of Iranian first-grade high school EFL learners. The findings also indicated that students in the experimental group had positive attitudes towards Otus. This research adds its significant findings of the growth of online language...
teaching facilities and enhancing the attitudes and achievements of Iranian EFL learners. Results can lead to some pedagogical implications for Iranian English language policy-makers to consider the use of educational networks and online application in the syllabus and teachers’ training courses.

**Subjects:** Teaching & Learning – Education; High School Education

**Keywords:** Iranian EFL learners; Learning management system; social networks; Otus; language achievement; attitude

### 1. Introduction

English language achievement is one of the most complex skills that English as a foreign language (EFL) learners are expected to acquire. It requires the mastery of various linguistic, cognitive, and sociocultural abilities. El-Omari (2016) believes that many factors contribute to the language achievements such as students’ age, gender, grades, type or location of the school, and parents’ education status. Moreover, Camenson (2007) stressed that the limited time of EFL instruction and lack of direct contact with native speakers outside the classroom made language achievement more difficult. Similarly, Dolati and Mikaili (2011) believed that because of the limited number of formal instruction hours in Iranian high school classes the English achievement of the majority of Iranian students is very low.

The development of the internet along with the design of many social educational sites (SNS) and applications facilitated communication between teachers and learners. The speed of sending information via the internet promotes the design of many applications and leads to the development of social educational networks. Kaplan and Haenlein (2010) defined social media as “a group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content”.

Ansari and Khan (2020) believed that the application of social network to the domain of education may present both advantages and disadvantages. For instance, bringing the social network to the classroom presented many benefits such as sending and receiving course content promptly, having access to many online sources easily and cheaply, eradicating time and space obstacles, and so forth. However, despite its advantages, social networks can negatively impact the user’s world view (Statista, 2018). Furthermore, Huang (2018) was doubtful about the positive relationship between social network use (his case Twitter) and learners’ performance.

The growing tendency toward the application of social networks occurs in the domain of foreign language teaching to enables the teachers to use sound, visual, and movement effects into English classes. (Adas & Bakir, 2013; Hojatpanah & Dashtestani, 2020; Shams-Abadi et al., 2015; Traore & Kyei-Blankson, 2011). Golonka et al. (2014) stated that social networks for foreign language learning not only motivates learners also provides more interactive environments and supports quality feedback. Moreover, El-Omari (2016) believed that language learners gain better achievement when applying online application than those who attended face-to-face instruction classes. Along the same line of thought, Ansari and Khan (2020) stated that the use of online social networks media helps EFL learners to be more creative and dynamic which consequently has a significant impact on students’ academic performance. Therefore, social learning network has greatly influenced the process of language teaching and learning by permitting students to have access to English teachers and digital materials even out of the classroom.

Nowadays, the learners gain this opportunity to become more selective of the application or kind of social educational networks they select (Harris & Martin, 2012). Consequently, many studies were run in the domain of applying social educational applications such as Edmodo, Edowware, and DIPRO 2.0, and Livemocha to figure out the best possible way to use the social learning
network for a more effective course organization and interaction with many learners (Balakrishnan et al., 2015; Clark & Gruba, 2010; Ma'azi et al., 2018).

Another educational network that is particularly designed for teaching and learning purposes is Otus. Otus which was introduced in 2012 combines a learning management system, assessment, data warehouse, and many classroom management tools for K-12 students. The Otus application gives the opportunity to the entire school community students and families with mobile access to come into contact together anywhere, and anytime. Otus provides many facilities. For instance, the families can not only view the notification feed on the home page and the “Class Board”, but they are able to view recognitions given to their students and their student’s overall grade and assessment scores. When necessary, families can send emails to teachers. Similarly, the teachers can present the lesson, comment on the class post, and monitor individual students’ standards performance and overall grade and assessment scores. Consequently, students can view the notification feed on the home page and also check their assessment scores and emails the teachers.

Based on the significant role of using social networks in educational contexts, the researcher examines the effect of Otus application on the English achievement of Iranian first-grade high school EFL learners. To our knowledge, no study has been done to investigate the effectiveness of Otus in EFL classes in Iran. This is probably the first study that applied Otus with Iranian English learners at the school level.

The of learners’ attitudes towards these applications as language learning tools has attracted the attention of many researchers (Ma'azi et al., 2018). However, the majority of studies on attitudes towards social learning networks have focused on university students (Balakrishnan et al., 2015; Yunkul & Cankaya, 2017; Wiebe & Kabata, 2010), while their use at the school level is lacking. Therefore, the purpose of this study is to determine the attitudes of Iranian first-grade high school students towards the use of Otus application for learning EFL. Drawing upon the aim of the study and to fill this research gap, the present study was conducted; therefore, the following research questions are raised:

1. What is the effect of the application of Otus social educational network on the Iranian first-grade high school EFL learners’ language achievement?
2. What are the Iranian first-grade high school EFL learners’ attitudes towards the application of Otus social educational network?

2. Literature review
The effect of social networking sites (SNSs) on the educational area is fundamentally obvious.

Boyd and Ellison (2007) defined social networking sites as sites put in common different technical characteristics that permit users to shape associations. Chartrand (2012) believed that SNS provides unique opportunities for language learners to associate in real manners that were beforehand hard to accomplish. Similarly, Blattner and Fiori (2009) asserted that SNS assemble positive connections among learners and give numerous occasions to them to cooperate with friends, educators, and native speakers. Accepting the effect of SNSs on language teaching achievement, Mellati, Khademi, et al. (2018) believed that new technologies established authentic and effective interaction between learners even with different interests.

These social educational sites provide the opportunity for language teachers to plan and present their courses within a flexible framework that involves a number of varieties of applications to enable learning and communication to happen. Similarly, Bond et al. (2017) indicated that the application of SNS in English language classes might affect positively their language achievement. Therefore, the strength of learning languages by online social networks cannot be overlooked since
developing many contextualized language skills gets easier and learners’ involvement, achievement, and motivation enhance (Brick, 2011; Gunduz, 2005; Motteram & Sharma, 2009; Rey & Rosado, 2001; Terrell, 2003).

Many researches have been done on the usefulness of various social networking sites in EFL classes. For instance, their impacts on listening skills (Barani, 2011), on vocabulary development, (Al-Jarf, 2008), language achievement (Al-Mansour & Al-Shorman, 2012; Özmen & Bunyamin Atıcı, 2015) were investigated, and all approved that SNS integration into language classes are completely suitable for educational purposes (Durak, 2017). More specifically, Bicen (2015) used Edmodo in EFL classes and the findings of his study showed that Edmodo improves students’ foreign language learning, enhance their achievement, increase communication among students, and acts as an interesting learning environment for the language learners. Similarly, the findings of Ma’azi et al. (2018) study indicated that the application of the Edmodo had a great impact on EFL learners’ writing skills. Also, Gimranova et al. (2018) indicated that the use of WhatsApp in texting to motivate language learning was incredibly valuable, because it allowed learners to be involved in informal communication with their peer models through an application with which they are very familiar. Doğan (2019) results of study showed that Edmodo provides an interactive virtual learning situation that promotes students cooperation and enhance the learners’ language achievement through interaction and communications.

One of the learning management systems which attracted the educators and teachers is Otus. Otus incorporates classroom management features, curriculum, and assessment all in one place. Otus tries to present everything a mobile class possibly requires for both teachers and learners. This product facilitates lesson planning, the individualized educational plan (IEP) accommodations, modifications, behavior support plans, and student engagement.

Many researches have indicated that learners’ attitudes are important in the use of social networking applications in their language learning practices (e.g., Alemi & Lori, 2012; Dashtestani, 2016; Liaw et al., 2007; Ma’azi et al., 2018; Manca & Ranieri, 2017; Rahimi & Yadollahi, 2011; Soltani Tehrani & Tabatabaei, 2012). All these studies showed that students had positive attitudes towards the application of online social networks in English classes.

3. Method

3.1. Participants

Fifty EFL learners at a high school level who were studying at two English language institutes in Iran participated in this study. They were male. The average age of the participants ranged from 14 to 16. The participants were selected through convenience sampling (also known as availability sampling) procedure. Then, the participants were divided into experimental and control groups randomly. Accordingly, there were two classes of 25 students. Persian was the first language of most learners, and English was the foreign language for all the participants. The curriculum, course objectives, and the English language teacher and the amount of time were the same for both groups of learners.

3.2. Instruments

The instruments used to collect the data were a placement test to measure students’ level of English proficiency, an achievement test to find out the level of language achievement at the end of the course instruction, an attitude questionnaire to compare students’ attitudes at the beginning and at the end of the term and the Otus application.

3.3. A proficiency test

At first, a proficiency test was used to check both groups’ homogeneity regarding the proficiency levels of the students. The Oxford Online Placement Test (OOPT) is a standardized test from Oxford University Press. The Oxford Online Placement Test contains 60 items that measure students’ level of English proficiency. The test contains various subsections including multiple-choice questions,
cloze passages, and matching items, which checks learners’ knowledge of vocabulary, grammar, and comprehension. Each correct answer provided by the participants received a score of one while each incorrect response was scored zero. Therefore, one score was assigned for each correct answer. According to Yaemtui (2018) The Oxford Online Placement test was used as a widely recognized reliable and valid test which has been pre-tested and validated. However, the researcher again checked the reliability of the test which was estimated through Cronbach’s reliability coefficient following the test performance. It was 0.9 which indicated the internal consistency of the test.

3.4. An achievement test
The second instrument was an achievement test which was used as a post-test. The purpose of the post-test, on the other hand, was to measure the participants’ performance on the “Vision 1” student book after the treatment. All learners in experimental and control groups were asked to answer the post-test. Regarding the validity of the English test, the content and face validity of the test were confirmed by two university professors and 5 experienced English teachers at high school. The reliability of the posttest was calculated through the use of Cronbach’s reliability coefficient following the test performance which was 0.71. The post-test scores of both groups were compared to investigate the effectiveness of treatment for each group.

3.5. An attitude questionnaire
To assess students’ attitudes in a learning environment, questionnaires are considered as a reliable instrument (Colosi, 2006; Radhakrishna, 2007). The third instrument adopted and translated into Persian in the study was Language Learning Attitudes Questionnaire (LLAQ) employed in a study by Boonrangsri et al. (2004). LLAQ comprised 30 items about an attitude toward English language learning in a Likert format ranging from “strongly agree” to “strongly disagree.” The items of the test focused on issues like Self-image (the set of ideas a person has about his/her own qualities and abilities), Inhibition (feeling of fear or embarrassment), Risk-taking, Ego Permeability (degree of flexibility in a person’s ego.) and Ambiguity (Unclear or confusing). The interpretation techniques and analysis method had already been provided by the author of the instrument. Cronbach’s reliability coefficient was adopted to investigate the reliability of the Persian translation versions. The coefficient for Language Learning Attitudes Questionnaire was 0.78. This is an acceptable reliability figure in the social sciences (Dörnyei, 2006). The high reliability and validity of the questionnaire has been already reported in previous studies (Aliakbari & Gheitasi, 2017; Ma’azi et al., 2018; Rashidi & Nazemi, 2015). However, to investigate the validity of the questionnaire the expert judgments approach was employed consulting two Ph.D. holders in teaching English as a foreign language (TEFL) and five MA holders majoring in psychology and social sciences. The questionnaire was piloted to improve procedural matters.

3.6. The Otus application
The last instrument of the present study was Otus. Otus, which is accessible at www.Otus.com, is available on the net and is free for both teachers and students. Otus is an educational technology platform to support K-12 student learning, teacher efficiency, visibility, and increased parent engagement.

Otus is an easy-to-use application for iOS and web tools that tries to present everything requirement in a mobile classroom. The teachers can organize classes, assignments, and assessments, take attendance polls, feedback, share resources, and write blog posts. Otus enables learners to interact with each other and develops a unified classroom group (Figures 1 and 2).

3.7. Procedure
The present study aimed to investigate the effect of Otus application on the Iranian first-grade high school EFL learners’ achievement and attitudes towards English language learning. Experiments were run during the fall of 2019. In order to gather the required data for answering the research questions, the following procedure was carried out.
At first, the participants were selected through a convenience sampling procedure and randomly divided into experimental and control groups. Then, the homogeneity of both groups was determined through the pretest. Both the control and experimental groups had the same instructor who was the researcher of the present study. In addition to this, the materials taught for both groups were the same. The learners were similar in age, gender, and language proficiency. The study was carried out for fifteen weeks (two days a week). It lasted for thirty sessions. The same achievement test was given as a posttest to both groups in the last session.

Second, after determining the experimental group, the introduction, registration, and the use of Otus were performed only for the experimental group, as an instructional strategy or the treatment of the study. However, both groups were studying the “vision 1” book based on the syllabus of the Ministry of education. After a clear explanation for the students in the experimental group, the Otus features were introduced and students became familiar with this application and its functionality; moreover, they were instructed on how to use it. Then, they were assisted to upload
the application. In doing so, the students had twenty-four-hour access to their teacher and classmates.

After creating the virtual class in Otus, the teacher uploaded the course textbooks through the bookshelf. Doing so, the pdf format of the book “vision 1” along with its workbook and compact disc (CD) were uploaded. These materials from bookshelves could be selected to share with the whole class or share with any of the learners in the Otus classroom. Another interesting feature of Otus was the way students delivered their homework. Thus, students in the experimental group were able to post their questions or discuss the results of the assignments. During the treatment, the students in the experimental group had direct access to teacher pronunciations and reading the content aloud. The students had to upload their homework; however, the correct forms of the exercises with complete explanations were delivered to them via Otus. Then, they had to check their answers and got immediate feedback. At the end of each week, the teacher added assignments to Otus. For example, he gave them some sample drills or the voice recorded files of the book passages. The teacher produced a quiz or essay from the “assessment” page. Moreover, the teacher presented some new homework by clicking on the “Create Assignment” button to start doing new homework. The teacher also chose the assignment for which learners in a class to differentiate teaching and evaluation. Once the assessment was created, the teacher added all the questions in different formats such as short answer, true/false, or multiple choices. After the students’ assessment, the teacher graded them every other week. After the teacher finished scoring, the EFL learners in the experimental group looked at the results at once. Learners were able to write posts for any type of homework and the teacher gave related feedback.

The other Otus features which were utilized in this study to promote students’ attitudes towards learning English were called the role and recognition and flags. Recognition is for writing positive and negative feedback. Then, the teacher quickly understood how many positive and negative scores each learner had been appointed. The teacher saw the students’ achievement instantly. All in all the application only gave more space for more support, which opens a new path for deep and enough communication for students and their instructors.

Third, for control group, the teacher used grammar-translation method in all the sessions. Although the same quizzes, drills and homework were given to the control group, their answer and assignments were checked only in the classroom. They had very limited contacts with their teachers and it was difficult to check students’ performance in this overcrowded class. Because of the time restriction, the teacher was not able to give face-to-face feedback and correction to students’ homework or quizzes. The students wrote their homework in their notebooks and the teacher only had a glance at their notebooks. However; the correct forms of the exercises with complete explanations were delivered to the control group by the teacher’s lectures. The teacher read the texts and translated the contents, explained the grammar and used a whiteboard to present the explanations. While the only interaction and contact with the teacher in the control group were face-to-face classes, the experimental group had the same situation in addition to Otus application.

Furthermore, in order to explore the learners’ attitudes towards the application of Otus educational network, a questionnaire was distributed to the students in both groups at the beginning and in the final session of the study. The collected data were analyzed using SPSS software version 25.

3.8. Findings
The first research question attempted to ascertain whether the application of Otus social educational network affects the Iranian first-grade high school EFL learners’ language achievement. To this end, an independent-sample t-test was run to see if there was any significant difference in the mean scores of pretests and posttests of participants who were taught in the control and experimental group. First, the Oxford Online Placement Test was administered to determine the homogeneity of the participants. Therefore, the mean and standard deviation of scores were calculated.
In order to find the differences between the groups regarding English proficiency, the researcher used a t-test. The descriptive statistics for pretest results are provided in the following Tables.

As it is clearly depicted in Table 1, the mean scores of both groups are close to each other and the mean scores showed that there were no much differences between the pretest scores of both groups. In order to be assured about this result, an independent sample t-test was run.

As it is depicted in Table 2, the obtain value for t is 0.717. Because this value is smaller than the critical value for t with 48 degrees of freedom at 0.05 level of significant, it can be concluded that there was no significance difference between the groups in their performance in the pre-test. This result showed that the learners in the both groups were similar regarding their knowledge of English before the commencement of the study. In other words, the participants in both control and experimental groups were homogeneous.

In the next stage, the researcher compared the post-test scores of the control and experimental groups to find out whether the treatments have been effective or not. The descriptive statistics for the posttest results are provided in Table 3.

As the results in Table 3 show, the mean scores of the experimental (43) and control (36) groups were not the same and there was a difference between them. In order to find out if the differences between the groups in the post-test were significant or not, the researcher ran again a t-test. The results of the t-test are depicted in Table 4.

As it is observed in Table 4, the obtained value for t was 3.023. This value was greater than the critical value for t with 28 degrees of freedom at 0.05. There was a significant difference between two groups of learners due to their English achievement.

| Table 1. Descriptive statistics for each group performance on the pre-test |
|-----------------------------|------------------|------------------|
| Groups                      | N    | Mean Score | SD  |
| Pre-test                    |      |            |     |
| Control Group               | 25   | 23         | 4.48|
| Experimental Group          | 25   | 24         | 4.93|

| Table 2. T-test results for the pre-test scores (Independent Sample test) |
|--------------------------------|--------------------|--------------------|
| Leven’s test for Equality of variance | t-test for Equality of Means |
| F          | Sig | t      | Df | Sig |
| Equal variances assumed | .027 | .863 | .717 | 48 | .452 |
| Equal variances not assumed |     |       | .717 | 48 | .452 |

| Table 3. Descriptive statistics for post-test results |
|-----------------------------|------------------|------------------|
| Posttest                    | Groups           | N    | Mean Score | SD  |
|                            |                  |      |            |     |
| Control group               | 25   | 36         | 5.28|
| Experimental group          | 25   | 43         | 4.17|
The second research question was: What are the Iranian first grade high School EFL learners’ attitudes towards the application of Otus Social Educational Network? In order to answer this question, the mean scores of the items in the attitude questionnaire at the beginning and at the end of the experiment in two groups were compared. The results of both groups presented in Tables 5 and Tables 6, respectively.

As it is clearly presented in Table 6, the mean scores of both groups are close to each other and the mean scores show that there were no many differences between the pretest scores of both groups. In order to make these descriptive findings more meaningful, and find out whether there was a significant difference between the groups in the pre-test, a t-test was required.

In order to understand the differences between the current participants’ attitudes, a t-test was run. As it is shown in Table 7, the obtain value for t is 0.620. Because this value is smaller than the critical value for t with 28 degrees of freedom at 0.05 level of significance, it can be concluded that there is no significant difference between the groups in their attitude toward English at the beginning of Otus. This result showed that the learners in both groups had similar attitudes toward English before the commencement of the study. In order to find out whether the treatments have been effective in changing the attitude of students toward English leaning, the researcher conducted the same attitude questionnaire for the second time. To get the difference in attitude in control and experimental, Independent samples t-test was run. The results are shown in Table 8.

As the results in Table 9 show, the difference of attitude between the control and experimental group is meaningful. As it is clear from the above table, the attitude mean scores of the control group is 2.50, and the attitude mean scores of the experimental group is 2.83. As it can be seen from the comparison between Tables 8 and Tables 10, the experimental group experienced a higher change in the group mean than the other group. In order to find out if the differences among the attitude of the groups at the end of the experiment were significant or not, the researcher ran again a t-test.

As it is observed in Table 10, the obtained value for t is 2.88. This value is greater than the critical value for t with 28 degrees of freedom at 0.05. It can be seen that there is a difference between the two groups in their attitudes towards English. The difference in attitude between the control and experimental group is statistically significant. The experimental group students showed a slightly higher attitude, compared with the other group. Then it can be said that the attitude of the experimental group has been affected by the application of Otus treatment. Accordingly, it can be concluded that the application of Otus had a positive impact on the students’ attitudes in learning English.

4. Discussion
The present study aimed to investigate the effect of Otus on the Iranian first-grade high school EFL learners’ achievement and attitudes toward English language learning. Fifty students at first-grade
Table 5. Descriptive data of attitude questionnaire items at the beginning of the course

| No | Item                                                                 | Experimental group | Control group |
|----|----------------------------------------------------------------------|--------------------|---------------|
|    | Attitude Questionnaire items                                         | SD | M | SD | M |
| 1  | Speaking English anywhere makes me feel worried                      | 0.55 | 2.11 | 0.51 | 2.09 |
| 2  | Studying English helps me to have good relationships with friends     | 0.67 | 2.54 | 0.62 | 2.71 |
| 3  | When I hear a student in my class speaking English well, I like to practice speaking with him/her | 0.62 | 2.78 | 0.57 | 2.96 |
| 4  | Studying English helps me to improve my personality                   | 0.83 | 2.32 | 0.89 | 2.12 |
| 5  | I put off my English homework as much as possible                     | 0.91 | 2.32 | 0.67 | 2.64 |
| 6  | I am not relaxed whenever I have to speak in my English class         | 0.71 | 2.84 | 0.56 | 2.76 |
| 7  | I feel embarrassed to speak English in front of other students.       | 0.59 | 2.76 | 0.78 | 2.84 |
| 8  | I like to practice English the way native speakers do                 | 0.59 | 2.76 | 0.54 | 2.80 |
| 9  | When I miss the class, I never ask my friends or teachers for the homework on what has been taught | 0.64 | 2.60 | 0.56 | 2.80 |
| 10 | I do not feel enthusiastic to come to class when English is being thought | 0.54 | 2.52 | 0.60 | 2.00 |
| 11 | Being good at English will help me study other subjects well          | 0.33 | 1.90 | 0.31 | 1.82 |

(Continued)
| No | Item                                                                 | Experimental group | Control group |
|----|----------------------------------------------------------------------|--------------------|---------------|
| 12 | I have more knowledge and more understanding when studying English    | 0.81               | 1.68          | 0.95          | 1.88          |
| 13 | Frankly, I study English just to pass the exams                      | 0.56               | 2.68          | 0.37          | 2.80          |
| 14 | In my opinion, people who speak more than one language are very knowledgeable | 0.71               | 2.32          | 0.48          | 2.48          |
| 15 | Studying English helps me communicate in English effectively          | 0.61               | 2.64          | 0.67          | 2.44          |
| 16 | I cannot apply the knowledge from the English subject in my real life| 0.34               | 2.12          | 0.76          | 2.16          |
| 17 | Studying English makes me able to create new thoughts                 | 0.59               | 2.44          | 0.87          | 2.64          |
| 18 | I am not satisfied with my performance in English subject            | 0.32               | 2.20          | 0.55          | 2.44          |
| 19 | In my opinion, English language is difficult and complicated to learn| 0.71               | 2.52          | 0.86          | 2.72          |
| 20 | English subject has the content that covers many fields of knowledge | 0.61               | 2.40          | 0.49          | 2.04          |
| 21 | I prefer studying in my mother tongue rather than any other foreign language | 0.39               | 2.33          | 0.38          | 2.67          |
| 22 | To be honest, I really have little interest in my English class       | 0.64               | 2.39          | 0.76          | 2.60          |

(Continued)
Table 5. (Continued)

| No | Item                                                                 | Experimental group | Control group |
|----|----------------------------------------------------------------------|--------------------|---------------|
| 23 | I don't get anxious when I have to answer a question in my English class | 0.51               | 2.60          | 0.50          | 2.48          |
| 24 | Studying foreign languages like English is enjoyable                  | 0.45               | 2.11          | 0.43          | 2.08          |
| 25 | I feel proud when studying English language                           | 0.67               | 2.64          | 0.78          | 2.88          |
| 26 | Studying English subject makes me feel more confident                 | 0.80               | 2.68          | 0.55          | 2.76          |
| 27 | I am interested in studying English                                  | 0.79               | 2.55          | 0.81          | 2.45          |
| 28 | Knowing English is an important goal in my life                       | 0.44               | 2.56          | 0.76          | 2.64          |
| 29 | I look forward to the time I spend in English class                   | 0.74               | 2.52          | 0.56          | 2.72          |
| 30 | Studying English makes me have good emotions (feelings)              | 0.71               | 2.60          | 0.81          | 2.45          |
|    | Total mean                                                           | 0.654             | 2.54          | 0.623         | 2.48          |

Table 6. Descriptive statistics for the attitude questionnaire at the beginning of the experiment

| Groups                        | N  | Mean Score | SD  |
|-------------------------------|----|------------|-----|
| Control Group                 | 25 | 2.48       | 0.623|
| Experimental Group            | 25 | 2.54       | 0.654|

Table 7. T-test results for the students’ attitude questionnaire at the beginning of the experiment

| Leven's test for Equality of variance | t-test for Equality of Means |
|--------------------------------------|------------------------------|
| Leven's test for Equality of variance | t | df | Sig |
| Equal variances assumed              | .032 | .620 | 28 | .132 |
| Equal variances not assumed          |     | .620 | 28 | .132 |
| No | Attitude Questionnaire items                                                                 | Experimental group | Control group |
|----|---------------------------------------------------------------------------------------------|--------------------|---------------|
|    |                                                                                            | SD     | M    | SD     | M    |
| 1  | Speaking English anywhere makes me feel worried                                              | 0.42   | 1.90 | 0.38   | 1.68 |
| 2  | Studying English helps me to have good relationships with friends                          | 0.75   | 2.56 | 0.70   | 2.44 |
| 3  | When I hear a student in my class speaking English well, I like to practice speaking with him/her | 0.63   | 2.63 | 0.56   | 2.84 |
| 4  | Studying English helps me to improve my personality                                        | 0.88   | 2.70 | 0.75   | 2.96 |
| 5  | I put off my English homework as much as possible                                            | 0.37   | 2.57 | 0.50   | 2.68 |
| 6  | I am not relaxed whenever I have to speak in my English class                               | 0.64   | 2.71 | 0.67   | 2.92 |
| 7  | I feel embarrassed to speak English in front of other students                              | 0.85   | 2.55 | 0.46   | 2.76 |
| 8  | I like to practice English the way native speakers do                                        | 0.78   | 2.32 | 0.65   | 1.98 |
| 9  | When I miss the class, I never ask my friends or teachers for the homework on what has been taught | 0.88   | 2.44 | 0.71   | 2.92 |
| 10 | I do not feel enthusiastic to come to class when English is being thought                    | 0.70   | 2.71 | 0.72   | 2.88 |

(Continued)
| No | Attitude Questionnaire items | Experimental group | Control group |
|----|------------------------------|--------------------|--------------|
|    |                              | SD | M  | SD  | M  |
| 11 | Being good at English will help me study other subjects well | 0.45 | 2.10 | 0.40 | 1.96 |
| 12 | I have more knowledge and more understanding when studying English | 0.63 | 2.71 | 0.63 | 2.96 |
| 13 | Frankly, I study English just to pass the exams | 0.52 | 2.44 | 0.69 | 2.64 |
| 14 | In my opinion, people who speak more than one language are very knowledgeable | 0.62 | 2.66 | 0.55 | 2.80 |
| 15 | Studying English helps me communicate in English effectively | 0.75 | 2.57 | 0.57 | 2.92 |
| 16 | I cannot apply the knowledge from the English subject in my real life | 0.75 | 2.54 | 0.76 | 2.68 |
| 17 | Studying English makes me able to create new thoughts | 0.41 | 2.32 | 0.54 | 2.88 |
| 18 | I am not satisfied with my performance in English subject | 0.81 | 2.75 | 0.71 | 2.60 |
| 19 | In my opinion, English language is difficult and complicated to learn | 0.43 | 2.31 | 0.62 | 2.52 |
| 20 | English subject has the content that covers many fields of knowledge | 0.47 | 2.46 | 0.97 | 3 |
| No | Attitude Questionnaire items                                                                 | Experimental group | Control group |
|----|-----------------------------------------------------------------------------------------------|--------------------|---------------|
|    |                                                                                              | SD     | M    | SD     | M    |
| 21 | I prefer studying in my mother tongue rather than any other foreign language                  | 0.83   | 2.62 | 0.45   | 3    |
| 22 | To be honest, I really have little interest in my English class                                | 0.42   | 2.40 | 0.43   | 3    |
| 23 | I don't get anxious when I have to answer a question in my English class                       | 0.47   | 2.81 | 0.91   | 3    |
| 24 | Studying foreign languages like English is enjoyable                                           | 0.90   | 2.72 | 0.70   | 2.45 |
| 25 | I feel proud when studying English language                                                   | 0.71   | 2.44 | 0.84   | 2.76 |
| 26 | Studying English subject makes me feel more confident                                         | 0.48   | 2.48 | 0.63   | 2.76 |
| 27 | I am interested in studying English                                                             | 0.82   | 2.38 | 0.78   | 2.43 |
| 28 | Knowing English is an important goal in my life                                                | 0.85   | 2.41 | 0.88   | 3    |
| 29 | I look forward to the time I spend in English class                                            | 0.70   | 1.57 | 0.86   | 2.64 |
| 30 | Studying English makes me have good emotions (feelings)                                       | 0.71   | 2.52 | 0.56   | 2.92 |
|    | Total mean                                                                                     | 0.670  | 2.83 | 0.647  | 2.50 |
Table 9. Descriptive statistics for the attitude questionnaire at the end of the experiment

| Groups               | N  | Mean Score | SD   |
|----------------------|----|------------|------|
| Control Group        | 25 | 2.50       | 0.647|
| Experimental Group   | 25 | 2.83       | 0.670|

Table 10. T-test results for attitude questionnaire at the end of the experiments

| Leven's test for Equality of variance | t-test for Equality of Means |       |
|--------------------------------------|-----------------------------|-------|
|                                      | F  | Sig | t     | Df | Sig |
| Equal variances assumed              | 1.49 | .257 | 2.88 | 28 | 0.05 |
| Equal variances not assumed          |    |     | 2.88  | 28 | 0.05 |

high school were chosen and were randomly divided into two groups. A control group was taught English using the traditional method of teaching while the Otus application was applied for the experimental group. The students using Otus have gained most of the benefits of the treatment. The finding of the study indicated that students using Otus gain more English achievement scores in comparison with other traditional language approach.

The result of this study showed that the performance of the experimental group was better than the other group in their post-test. Their achievement was statistically more significant than the control group. Unlike the control group which had limited contact with the teacher and classmates, the students using Otus application had more opportunity to contacts with their English teacher. In other words, Otus provided had more opportunities for collaborative works through interaction and collaboration. Otus enabled the students in the experimental group to interact effectively by making interaction easy with the teacher and other students about homework. Furthermore; Otus provided a good channel for them to ask questions to the teacher easily and this enhanced the interaction with the teacher. Moreover, upon sending their assignments via Otus, they got much feedback through this application. The recorded files made this opportunity for them to listen repeatedly to the teacher’s voice. The other reasons for this meaningful difference may be the amount of time the students involved in language learning as well as the way the teacher assessed their activities and gave them scores online.

Since no previous study has investigated the impact of using Otus application on Iranian students’ achievements in comparison with other approaches of teaching, the research finding should be compared with those which have investigated the role of the social educational network in foreign or second language learning development. Doing so, the finding was consistent with the studies conducted by Yang (2012), Soltani Tehrani and Tabatabaesi (2012), and Viberg and Gronlund (2013). They report that social educational networks had an impact on students’ language achievement. Furthermore, the results of this study are consistent with Berenji and Soeidi (2017) and Santoveña Casal (2019) studies. They showed that there were significant differences in the academic performance of the experimental group who accessed the social educational sites compared to the control group students who were taught in a traditional manner.

With regard to the impact of the social network on students' attitude toward language learning, these results are in line with Alemi and Lari (2012) results. They suggested that by immediately providing students with online exercises, students develop attitude and motivation to continue the
tasks. Similarly, the results of this study are also in agreement with Zamani and Mohammadzadeh (2013) and Azar and Nasiri (2014) studies where they showed that using online social networks for learning languages change positively Iranian EFL students’ attitudes.

Finally, some of the studies with foreign students indicated that the application of social educational networks increased student positive attitudes (Chen, 2009; Doğan, 2019; Girgin, 2011; Kavaliauskienė, 2011; Lee & Kim, 2013; Ma’azi et al., 2018; Tumsaduak, 2014).

5. Conclusion

The findings of the current study revealed that Iranian first-grade high school EFL learners’ English language achievement improved significantly by using the Otus educational network. Results showed that although the students’ English language achievement in the control group gained an acceptable improvement. In other words, the students who had access to Otus application during the experiment outperformed significantly and had higher achievement scores at the end of the term. These higher scores at the end of the term could be related to presenting Otus. Students in the experimental group write more specifically grammatical sentences, answer the quizzes and questions more accurately, and pronounce the words and sentences fluently. Moreover, the results of the study showed that presenting all the materials via Otus and involvement with students have been effective in improving learners’ achievements in language learning. Therefore, the application of Otus may make learning EFL language skills more interactive and that can be a new approach to the problem of English language activities lacking interaction. Furthermore, the results revealed that students in the experimental group had positive attitudes toward Otus application. This study helps to bridge the gap between the application of social educational networks in English classes in general and Otus in particular and students’ language achievement and attitude in Kermanshah, the west part of Iran.

The findings of the present study have generated several pedagogical implications for language teachers and English teaching policymakers in Iran to consider. Since Otus improves students’ attitudes and facilitates the process of language teaching and learning, it can be applied in English language classes. The results will help teachers and English course designers to consider new avenues to incorporate the social educational network into classroom activities. Therefore, it is recommended to Iranian EFL teachers and students to utilize and consequently create a responsible learning environment through online activities. Future researchers might replicate this study in other educational contexts such as university students in order to examine the effect of Otus on language achievement. Finally, the present study was based on learning English on male students; therefore, it also can take place on female EFL learning.

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