International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

# The Dynamic Impact of Digital Literacy-Based Instruction on Iranian EFL Learners' Language Achievement

**Afsaneh Baharloo**
Ph.D. in TEFL-Assistant Professor
English Department, Hafez Institute of Higher Education, Shiraz, Iran
**afsaneh.baharloo@hafez.ac.ir**
**Maryam Kamaei ***
MA Student of TEFL
Hafez Institute of Higher Education, Shiraz, Iran
**maryam.kamaei.1992@gmail.com**

## Abstract
This study was designed to determine the effect of digital literacy-based instruction on Iranian EFL learners' English language achievement. For the purpose of this study, two intact classes from eighth-grade at a bilingual high school in Shiraz were selected. One was assigned to be the experimental group and the other was assigned to be the control group. Fifty-six participants constituted the sample of the study. In order to check their homogeneity, the English language proficiency level of the participants was determined by OQPT. The experimental class received treatment whereas the control class followed the conventional instruction. Students were pre-tested and post-tested on their knowledge of digital literacy and English language achievement through a digital literacy questionnaire and two parallel English language tests based on their course book. Also, an interview was administered to some of the learners to apprehend their attitudes toward digital literacy. The findings of the study illustrated that there was no significant difference between the control and experimental groups on the pretests of their digital literacy and language achievement. The results inferred that students who enjoyed treatment in the form of digital literacy-based instruction, received both statically and practically significantly higher scores on English language achievement post-test than did the students in the control group. The interview results showed that the overall learners' attitude toward digital literacy is positive while they meet several challenges. Also the students in the experimental group who went through the digital literacy-based instruction made more relative gains than their counterparts in the control group with regard to their level of digital literacy. The results of the current study suggest that using digital literacy-based instruction leads to higher achievements in learning the English language. The findings of the study indicated that a more planned use of digital literacy-based instruction can reinforce English language learning.

**Keywords**: "digital literacy, English language achievement, Iranian EFL learners"

## Introduction
Today, amounts of information such as printed books, audio, video clips, images, educational posters, podcasts and more can be accessible through the internet. Students are acquainted with digital technology and generally recognize how to access, create, and share digital information [1]. Access to many opportunities for learning is now developed by technology. Education can be transformed, improved, and supported via technology in several ways for both teachers and students. With the emergence of educational technology, goals, objectives, curricula, lesson plans and the processes of teaching and learning have been continuously changing. Digital technology is one of the essential parts of education in today's teaching and learning process [2] and it is changing the students' learning ways and is developing different learning attitudes and styles [3].

In order to use technology as a tool for learning, the students should acquire related knowledge and skills which can help them using the tool effectively. To use technology as an effective tool in education, learners should be equipped with digital literacy which can boost the quality of the blended learning environment [4]. For being truly active and to have effective participation, digital literacy is a vital necessity and a prerequisite for learning in the digital age.

Some empirical studies have shown that digital literacy can play a significant role in students' learning. Studies on the effect of digital literacy on language achievement remain inadequate. Therefore, the present study was designed to provide empirical support for the field by exploring the effect of digital literacy-based instruction on Iranian EFL learners' English language achievement.

In the digital age of the 21st century, students should be prepared with digital proficiencies to meet their educational and life needs. These proficiencies include critical thinking skills, group work, and appropriate level of knowledge in using technology, as well as basic and academic knowledge [5].

In order to respond to this need, and by ever-increasing expansion of using computers and technology in pedagogical environments and curricula, the digital literacy framework should be applied into the classes appropriately to help the learners of all levels with their educational goals.

RQ1. Does digital literacy-based instruction significantly affect Iranian EFL learners' English language achievement?

RQ2. What attitudes do Iranian EFL learners hold towards the role of digital literacy in their language achievement?

## Review of the related literature
Many studies have been conducted in the language learning context with a focus on digital literacy [6], [7], [8]. Some of these studies investigated the effect of digital literacy on language learning or they

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

explored the relationship between digital literacy and language learning.

The entity of digital literacy is constructed of four indicators, including primary competencies in informational communication technology, informational skills, media awareness, and computational thinking [9].

Bawden [10] argues that digital literacy is an extensive concept and distinguishes four components of digital literacy: (1) underpinnings; (2) background knowledge; (3) central competencies; and (4) attitudes and perspectives. Ng [11] suggested that digital literacy has three dimensions: 1. Technical dimension, 2. Cognitive dimension, 3. Social-economic dimension.

Some countries added the word ICT to the concept of digital literacy; some countries such as Turkey, Nigeria, Japan and Spain [12]. One of the definitions for digital literacy is the ability to use information and computer technology (ICT) to discover, assess, construct, and transmit information that needs cognitive and technical skills. This definition envelops various concepts such as technological, cognitive, and social competence [13].

The fast growth of digital technologies is extensively modifying computer-assisted language learning (CALL). An important issue is that teachers and students have to improve their digital literacy skills to benefit the use of digital technologies for learning a language in digital environments. . The results of the study by Emami and Amirghasemi [14] showed the impressive and helpful role of CALL in language learning generally and vocabulary learning, particularly. 70 students participated in the study in Iran. This study investigated the effect of CALL on vocabulary learning.In one of the latest studies, Menggo et al. [15] examined EFL students' digital literacy competencies and their preferences for different aspects of English learning habits in a classroom setting. The study was conducted in Universitas Katolik Indonesia Santu Paulus Ruteng and a total of 402 students participated in the study. The results indicated that digital literacy affects and modifies many factors such as learners' study habits, reading and writing skills, learners' independence, self-sufficiency, and self-regulation. By applying and implementing a coherent and congruous culture of reading and writing literacy, learners can achieve a satisfactory level of digital literacy. Competence in digital literacy can affect the students' learning habits and English language learning. Also, it can motivate students to develop their English learning habits.

Hamidah [16] investigated the role of digital literacy in students' language learning. The data collection was done using documentation techniques and in the interpretive paradigm. The results indicated that technology provides students with some opportunities for language learning. Thus, learners must be familiar with the use of technology in the classroom. Language skills can be developed through using digital tools along with the learning objectives in the language classroom.

Li et al. [17] investigated the students' digital literacy level and the factors affecting the participants' digital literacy in their English learning. The participants for this research consisted of 174 students from a university in China. Findings indicated that digital devices were delightful and enjoyable for the participants and they were eager to use digital technologies in their personal life and learning contexts such as dictionaries, smart phones, blogs, and websites. The results of a study conducted by Mudra [18] in different rural and urban schools in Indonesia, revealed that digital literacy has many advantages for young learners in the field of learning English.

Armanda and Yosintha [19] explored the role of critical digital literacy perceived by EFL teachers and young learners. Thirty-four students participated in the study in rural area in Indonesia. Based on the result of the study, both learners and teachers had positive attitudes toward digital literacy in their English classes. Digital literacy was considered an effective ability to be acquired in English learning, it can increase young learners' motivation because they will enjoy it more.

Hasyim [20] summed up that digital literacy has not significantly affected the self-regulated language learning of students. One hundred and forty-seven students participated in his study. Based on the results of the study, digital literacy cannot be considered a significant factor in effective language learning.

In this view, some recent studies were checked. Each sheds light on digital literacy, learning in general and language learning in particular. These studies fall into the following categories: studies on the effect of DL, ICT, and CALL on the learners' language learning and studies on the relationship between digital literacy and language learning. Therefore, in light of these points highlighted by previous literature, this study explored the effect of digital literacy-based instruction on the learners' English language achievement.

## Methodology

This research conducted a pretest-posttest design. Since two intact classes were used as the experimental and control groups in this study, the design of this study is considered as a quasi-experimental design. Moreover, this research has employed a mixed-methods design in which both quantitative and qualitative data were collected.

### Participants

To accomplish the objectives of the current paper, two intact classes of young Iranian EFL learners (N = 56) were selected using convenience sampling. The two intact groups were randomly assigned into an experimental group (N = 29) and a control group (N = 27).

### Instruments

To guarantee the homogeneity of the experimental and the control groups in terms of general English proficiency level "Oxford Quick Placement Test" (OQPT) was given to the students of both groups [21].

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

The OQPT test indicated scores between 1 and 60 in scale. For this study in order to have homogeneous groups, the learners of pre-intermediate level have been chosen based on the result of OQPT. Those learners whose scores were between 24 and 30 were considered as lower-intermediate ones. It consisted of 60 multiple-choice questions in two parts.

The digital literacy (DL) questionnaire was designed and developed by Dashtestani & Hojatpanah[22], and consisted of a set of questions using the Likert scale format which has four sections, consisted a total of 41 items. Cronbach's Alpha coefficients (0.66–0.88) delineated an acceptable level of reliability for the items of the digital literacy questionnaire. For the present study, the internal consistency of 41 items of the digital literacy questionnaire was determined by the researcher using Cronbach alpha through data collected from the participants and the obtained indexes are as follows: control group's pretest and posttest (a= 0.87 and 0.82) and experimental group's pretest and posttest (a= 0.96 and 0.92), which are high and acceptable. In order to ensure the content validity of the digital literacy questionnaire, it was reviewed by three EFL experts, and their opinions were taken into account.

Language achievement test was another instrument used in this study. Students took the pretest-posttest standardized English exam administered by the researcher and approbated by the English language department members at the school. The results of this test were used to assess the overall English achievement of the students. Both pre and post-achievement tests, which were parallel, included language skills and components covered in the course book which was Connect 3. In other words, they were equal in content, difficulty level, and psychometric properties. To measure students' language achievement, these two tests were given to the students in the experimental as well as the control group. Both tests were also given to 3 evaluators to check their congruence with the content of the book hence their validity was ensured. In addition to this, the reliability of these tests was calculated through the data collected from the participants and the obtained indexes were 0.71 for the pretest and 0.86 for the posttest which are quite acceptable. It is, therefore, accepted that both tests have good reliability and discriminatory power.

In order to explore the learners' attitude toward digital literacy an interview was administrated. The interview consists of four questions and intra-rater reliability was used to evaluate the consistency between the ratings assigned by the raters. The students' interview questions focused on the learners' digital literacy levels, the most practical applications they use for learning English, and their purposes, strategies, and challenges for using and exalting their digital literacy. The validity of the interview was also checked by three experts in the field.

**Data collection procedures**

Notwithstanding the placement of the learners by the institute, the OQPT was administrated to be assured about students' level of proficiency and homogeneity of the participants in both experimental and control groups as a double check. In the second stage, the digital literacy questionnaire was given to all the participants. The participants were given as much time as they wanted since performance under the pressure of time was not the aim. The experimental group with 29 participants was instructed through digital literacy-based learning resources and activities, and received the treatment required to develop their digital literacy skills and the control group including 27 participants had conventional classroom instruction as before with no special treatment. In addition, the treatment in this study was in fact a digital literacy-based instruction, which consisted of a pamphlet about digital literacy concepts for the conceptualization of digital literacy for learners. Furthermore, it introduced the exact meaning of digital literacy, its dimensions, its necessity in the current digital age, and how to use digital literacy strategies in the classroom context such as managing online identity, emphasizing the importance of critical thinking, and managing digital distraction.

In addition, for the augmentation of learners' digital literacy in the current study, the treatment embraced the following subcomponents of digital-literacy-based instruction: using social network sites, using Microsoft Office PowerPoint, using English websites, playing computer games, using Microsoft Office word, playing online games, using computer-based dictionaries, using online dictionaries, using mobile-based dictionaries, using Wikipedia, using search engines, using English videos, sending and receiving e-mails, using English learning applications, using English podcasts. The students were asked to respond to the English language achievement tests related to their coursebook (Connect 3), at the beginning and the end of the study, which demonstrated whether nurturing their digital literacy has affected the EFL learners' English language achievement. Specific subjects of the coursebook (Connect 3) were tough and assessed through technological tools according to the digital literacy questionnaire. The treatment continued for six weeks to be completed. During the following six weeks, the above-mentioned items were introduced in the experimental group in detail, and the students were taught how to use them to learn English, especially their coursebook materials. Moreover, an interview was conducted with the experimental group to explore their perceptions of digital literacy in improving their language achievement. They mailed the completed interview back to the researcher.

**Data Analysis Procedure**

To elucidate the significant differences existing in the experimental and control groups, an independent sample t-test was operated. In addition, paired sample t-test was run to examine whether there are any significant differences in the means of digital literacy, and language achievement. Moreover, Cronbach alpha was analyzed to estimate the reliability of the questionnaire and language achievement tests.

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

## Results

The results of descriptive statistics presenting the details of the data collected are provided in this section. Paired samples t-tests comparing pre-tests and post-tests of the learners in each group to find differences within groups, and independent samples t-tests comparing the groups with each other to find differences across groups are interpreted in this section.

**Table 4.1. Descriptive Statistics of the Control and Experimental Group's digital literacy Pre- and Post-Tests**

| Paired Samples Statistics | | | | | |
|---|---|---|---|---|---|
| | | Mean | N | Std. Deviation | Std. Error Mean |
| Pair 1 | Control_DL_pretest | 155.1481 | 27 | 18.02072 | 3.46809 |
| | Control_DL_posttest | 158.4074 | 27 | 16.14659 | 3.10741 |
| Pair 2 | Experimental_DL_pretest | 152.2414 | 29 | 21.99782 | 4.08489 |
| | Experimental_DL_posttest | 174.1379 | 29 | 19.26270 | 3.57699 |

According to Table 4.1., the mean score of pre-tests of digital literacy (N=27, SD=18.02), of the control group is 155.14. Also, the mean score of post-tests of digital literacy (N=27, SD=16.14), of the control group is 158.40 respectively. The tables show that the control group had more or less similar performances on the pre-tests and post-tests.

Table 4.2. shows the results of the paired samples t-test comparing digital literacy pre-test and post-tests for the participants of the control group who didn't experience the treatment. The results of the comparison between the pre-and post-test of digital literacy taken by the control group revealed that the participants' level of digital literacy did not increase notably at the end of the study.

Table 4.2. demonstrates no statistically significant difference in the score of the participants from their pre-test to their post-test of digital literacy ($p>.05$, SD=19.59, df=26, t=.86). In other words, the control group did not progress in terms of their digital literacy ($p=.395$). The table indicates that there was no statistically significant difference between the participants' performance on digital literacy in the control group before and after the study.

Also, the Table shows the results of the paired samples t-test comparing digital literacy pre-test and post-tests for the participants who experienced digital literacy-based instruction. As displayed in the table, there is a statistically significant difference, at the .05 level of significance, between the pretest to post-test scores for the digital literacy level of the experimental group ($p <.05$, df=28, t=4.35). This difference suggests that there was an enhancement in the performance of the learners in terms of their digital literacy before and after the treatment. According to the table, participants in the experimental group improved their digital literacy level during the experiment.

As illustrated in Table 4.2., the participants' partial digital literacy increased remarkably between the pre- and post-tests in the experimental group ($p = .000$). The results also indicate that while digital literacy-based instruction was a medium to explore the impact of DL on SC and LA, it increased the level of learners' digital literacy level simultaneously.

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

**Table 4.2. Paired Samples t-test for the Control and Experimental Groups' digital literacy Pre- and Post-Tests**

| Paired Samples Test | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Control pretest – Control posttest | -3.25926 | 19.59119 | 3.77033 | -11.00928 | 4.49076 | -.864 | 26 | .395 |
| Pair 2 | Experimental pretest – Experimental posttest | -21.89655 | 27.09948 | 5.03225 | -32.20464 | -11.58846 | -4.351 | 28 | .000 |

In order to find out whether the digital literacy-based instruction had any impact on the growth of digital literacy of the participants in the experimental group compared to that of the control group, the data gathered from both groups were compared. To this end, independent samples t-tests were run.

**Table 4.3. Descriptive Statistics of the Control and Experimental Groups' digital literacy posttest**

| Group Statistics | | | | | |
|---|---|---|---|---|---|
| | STUDENTS | N | Mean | Std. Deviation | Std. Error Mean |
| Post Digital Literacy | Experimental | 29 | 174.1379 | 19.26270 | 3.57699 |
| | Control | 27 | 158.4074 | 16.14659 | 3.10741 |

Table 4.3. shows that the mean score of the pre-tests of (N=29, SD=19.26) for the experimental group is 174.13, and the control group's mean score of post-tests of digital literacy (N=27, SD=16.14) is 158.40, respectively.

**Table 4.4. Independent Samples t- Test for the Control and Experimental Groups' digital literacy posttest**

The t-test is presented in Table 4.4., compares the two groups' digital literacy post-tests. The results indicate a considerable difference between the participants' performance in experimental and control groups [p>.05, p =.448, df=54, t=3.29, sig. (2-tailed)] These results suggest that the experimental group had an improvement after the treatment. Considering the results from the above table, the experimental group seems to have progressed in terms of digital literacy while the control group did not.

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

| Independent Samples Test | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| DL posttest | Equal variances assumed | .584 | .448 | 3.299 | 54 | .002 | 15.73052 | 4.76843 | 6.17039 | 25.29066 |
| | Equal variances not assumed | | | 3.320 | 53.435 | .002 | 15.73052 | 4.73824 | 6.22863 | 25.23242 |

In order to find out whether the digital literacy-based instruction had any impact on the expansion of English language achievement of the Iranian EFL learners in the experimental group compared to that of the control group, the data gained from the language achievement of both groups were compared. Hence, two separate independent samples t-tests were run.

**Table 4.5. Descriptive Statistics of the Control and Experimental Groups' English language achievement pretest**

| **Group Statistics** | | | | | |
|---|---|---|---|---|---|
| | STUDENT | N | Mean | Std. Deviation | Std. Error Mean |
| Pretest score | Experimental | 29 | 19.0690 | 2.54854 | .47325 |
| | Control | 27 | 18.7778 | 2.06311 | .39705 |

Table 4.5 illustrates the measures of central tendency and dispersion for 56 English language students who took part in the study and filled out language achievement tests. the mean score of pre-tests of the language achievement test of the control group (N=27, SD=2.06) is 18.77, and the mean score of the experimental group (N=29, SD=2.54) is 19.06. Moreover, the SD shows that the participants are homogeneous regarding their language achievement scores at the begging of the study.

**Table 4.6. Independent Samples t- Test for the Control and Experimental Groups' English language achievement pretest**

| **Independent Samples Test** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Pretest score | Equal variances assumed | 1.073 | .305 | .468 | 54 | .642 | .29119 | .62244 | -.95674 | 1.53911 |
| | Equal variances not assumed | | | .471 | 53.007 | .639 | .29119 | .61775 | -.94785 | 1.53023 |

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

The results are demonstrated in Table 4.6. revealed no statistically significant difference between the language achievement pre-tests of both control and experimental groups, meaning that, both groups had more or less similar fulfillment at the begging of the study. Since the sig. index is more than 0.05 (p>.05, p=.305, df=54, t=0.46), it is concluded that there was no significant difference and the groups were homogenous at the beginning of the study. The table manifested no statistically significant difference between the two groups' pretest scores; that is, both groups owned similar levels of English language achievement before the study began.

Another independent samples t-test was run between the post-tests of the study to spot any potential differences between the English language achievement tests of both groups at the end of the study.

The following tables indicate the groups statistics and the results of the posttest independent samples t-tests

.

**Table 4.7. Descriptive Statistics of the Control and Experimental Groups' English language achievement posttest**

| Group Statistics | | | | | |
|---|---|---|---|---|---|
| | STUDENT | N | Mean | Std. Deviation | Std. Error Mean |
| Posttest score | Experimental | 29 | 21.0345 | 2.12943 | .39543 |
| | Control | 27 | 19.0000 | 2.67467 | .51474 |

According to Table 4.7., the mean score of the post-test of the language achievement test, of the control group (N=27, SD=2.67) is 19.00. Also, the mean score of post-test language achievement of the experimental group (N=29, SD=2.12) is 21.03 respectively. Also, the Table shows that the control group language achievement scores were in decline and the scores were dropped to a lower level at the end of the study.

**Table 4.8. Independent Samples t- Test for the Control and Experimental Groups' English language achievement posttest**

| Independent Samples Test | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Posttest score | Equal variances assumed | 2.204 | .143 | 3.160 | 54 | .003 | 2.03448 | .64382 | .74370 | 3.32526 |
| | Equal variances not assumed | | | 3.134 | 49.677 | .003 | 2.03448 | .64909 | .73054 | 3.33843 |

This independent samples t-test was conducted to find any possible differences between the performances of the groups regarding changes in their English language achievement.

The results of Table 4.8. indicated that there was a meaningful difference in post-test scores between the experimental and the control group. The greatness of the differences in the means is as follows (mean difference = 2.03). It can be indicated that the learners in the experimental and the control group did not have the same performances in their language achievement tests at the end of the study and after the treatment.

With regard to the result of Levene's Test for Equality of Variances, the equal variances assumed, were investigated. According to the results (sig = .006 <.05), it is concluded that there is a statistically significant difference in the language achievement of the experimental group who experienced the treatment

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

in comparison to that of the control group who did not receive the treatment.

Since the mean score of the control group is 19.00 and the mean score of the experimental group is 21.06, it is inferred that the students in the experimental group outperformed those in the control group with regard to their language achievement. These results are indicative of the fact that the employing of digital literacy-based instruction caused noteworthy growth in the English language achievement of the experimental group. The control group, on the other hand, did not have any remarkable improvement.

Regarding the data obtained in the qualitative phase of the study, the researcher analyzed the participants' respondents to interview questions in order to find the most recurring theme. The interview asked for the respondents' ideas and descriptions through the following questions in Table 4.9. Sixteen students were randomly selected to be interviewed. Interviews took 7-10 minutes based on students' answers. Also, the students were asked to e-mail their explanations. It is noteworthy that while data collection in terms of interviews was employed based on Eisenhardt [23], the procedure carried on until no further point could be added. In other words, interviews were terminated based on data saturation. The Interview was conducted after the posttests at the end of the study. These interviews were analyzed only by the researcher.

**Table 4.9. Students' interview questions**

| Interview Questions |
|---|
| What do you think about your level of digital literacy? |
| What is your main purpose for using technology? What kind of digital devices and applications do you use for your purposes? |
| Name some strategies and measures to promote your digital literacy. |
| What are the possible limitations and challenges of promoting your digital literacy? |

## Discussion

In the following section, the findings presented in the previous part will be discussed in detail and the research questions will be answered one by one.

**Research question one: Does digital literacy-based instruction significantly affect Iranian EFL learners' English language achievement?**

The reported data showed that the two groups were not significantly different at the beginning of the study. However, the experimental group went through notable modifications after enjoying the treatment at the end of the study. On the contrary, the control group illustrated no expressive development in terms of its English language achievement at the end of the study, which could be indicative of the fact that conventional language teaching did not have an impact on increasing language achievement scores. These outcomes afford confirmatory evidence that digital literacy-based instruction as an educational tool was impressive in the development of the Iranian EFL learners' English language achievement.

These results are in line with prior studies that have noted the opportunities for using educational technologies should be increased [11]. The results are also consistent with the data obtained by Mudra [18], who examined different rural and urban schools. The findings of the study indicated that learners can develop their writing skills via digital literacy and their listening skills will improve through listening to English podcasts and songs. Another finding of the study is that digital literacy tools provide young learners with authentic materials. These materials contain native grammar usages which are predominant factors in learners' grammatical competencies.

The results of the present study are also in accord with those of Li et al. [17], who claimed that the participants were good at using apps on digital devices, which can help them with language learning. The results also showed that using digital technologies and resources is constructive and beneficial in educational systems to make the learning and teaching process effective.

However, this finding is in contrast to that of Hasyim [20], who summed up that digital literacy has not significantly affected the self-regulated language learning of students. One hundred and forty-seven students participated. Based on the results of the study, digital literacy cannot be considered a significant factor in effective language learning. The cause for this contradiction is maybe the effect of other factors, which were not examined in that study

.

International Journal of Language , Literature , Culture and History Studies
Vol.4, NO.3 , P:1 - 10
Received: 12 June 2023
Accepted: 01 May 2024

**Research question two: What attitudes do Iranian EFL learners hold towards the role of digital literacy in their language achievement?**

The results of the study indicated that the learners who had access to ICT tools and used applications, websites, podcasts, and so on had a more positive attitude toward language learning through digital literacy than the students who did not use them; The analysis of the interviews revealed that the students believed that having digital literacy helped them feel not or less anxious, and more confident while using websites, online and offline dictionaries, podcasts; furthermore, digital literacy changes their learning manner due to the speed of technological tools, various and extensive contents, visual and auditory signals and expands their language learning.

According to the results, 62/5 % of participants perceived that their digital literacy level is adequate, while they are eager to learn more. "I think my literacy is sufficient for my educational needs and age.", said one student enthusiastically. "I think my level of digital literacy is good, but I need more information and I try to get better" mentioned another student. All the participants expressed that they utilize technological tools for both educational and non-educational goals. Also, most students considered technological tools as a guide in most fields. One said that "My main purpose of using technology is to connect the world, be up to date and do my daily work". Another student added, "We can learn everything with these digital tools".

The majority of students accessed two or more devices to experience digital content for their purposes (75%). Smartphone in its totality was noted as the most usable device. "I usually use a laptop and my smartphone and sometimes my tablet," said one student. "I usually use a PC, laptop, and mobile," said another student.

According to the results, YouTube is the most influential application which reinforces learning and eases comprehension (87/5%). As one explained, "By YouTube we can learn everything we want and it suggests similar clips to us and help us to learn easier". "I use dictionaries and YouTube (For educational use) and Duolingo." another one said.

Based on the learners' opinions, they must learn some strategies to promote their digital literacy. They mentioned that sometimes they are anxious while using digital tools and applications and they prefer to use common applications or recommended websites by reliable persons. Regarding measures and strategies to promote the level of digital literacy, there was consent about using appropriate and well-known apps and tools (87/5%). As pointed one of the students, "It's good to Stay safe online, use common applications like YouTube and Instagram, use Google tools, use online software to learn different things." "using up-to-date items, appropriate data, and learning security and safety can help.", mentioned another student.

All the learners complained about the internet speed, filtering, disturbance, inexpedient contents, distractions, advertisements, inaccurate data, invalid information lack of free and applicable software. "Lack of software, not having devices, software filtering," said one of the aggrieved students. "I think some of the limitations and challenges are filtering, application bugs, plenty of content, and internet speed", mentioned another student.

## Conclusion

Digital literacy has a significant impact on communicating, teaching, and learning. Thus, learners should have the chance of digital tools accessibility, experience, and grasp its concept and functions in educational life. For this purpose, before the deployment of digital literacy in foreign language learning activities, learners should be instructed. On the other hand, it should be known that digital literacy is not sufficient to learn the English language.

Thus, the research issue has to spotlight on a great variety of digital tools, applications, websites, and online and offline software used in language learning such as attitudes of learners toward digital literacy, learners' dissimilarity in operating the gadgets, effective ways to take advantage of them, the aptness of educational and instructive objectives and the impacts on learning. Employing digital technologies for language achievement is the most modern way that requires internet access and gadgets besides having digital literacy. As a final point, it is possible to say that digital literacy is not a purpose but a tool for all humanistic necessities including learning.

## References

[1] Ting, Y. L. (2015). Tapping into students' digital literacy and designing negotiated learning to promote learner autonomy. *The Internet and Higher Education*, *26*, 25-32.

[2] Benson, V., & Kolsaker, A. (2015). Instructor approaches to blended learning: A tale of two business schools. *The International Journal of Management Education*, *13*(3), 316-325.

[3] Coccoli, M., Guercio, A., Maresca, P., & Stanganelli, L. (2014). Smarter universities: A vision for the fast changing digital era. *Journal of Visual Languages & Computing*, *25*(6), 1003-1011.

[4] Ustundag, M. T., Gunes, E., & Bahçivan, E. (2017). Turkish adaptation of digital literacy scale and investigating pre-service science teachers' digital literacy.

[5] Ainley, J., Fraillon, J., & Freeman, C. (2008). National assessment program-ICT literacy years 6 and 10 report.

[6] Son, J. B., Park, S. S., & Park, M. (2017). Digital literacy of language learners in two different contexts. *Jalt Call Journal*, *13*(2), 77-96.

[7] Eryansyah, E., Erlina, E., Fiftinova, F., & Nurweni, A. (2019). EFL Students' Needs of Digital Literacy to Meet the Demands of 21stCentury Skills. *Indonesian Research Journal in Education| IRJE|*, 442-460.

[8] Iskandar, I., Sumarni, S., Dewanti, R., & Asnur, M. N. A. (2022). Infusing Digital Literacy in Authentic Academic Digital Practices of English Language Teaching at Universities. *International Journal of Language Education*, *6*(1), 75-90.

[9] Siero, N. B. (2017). Guidelines for supporting teachers in teaching digital literacy. Netherlands: University of Twente.

[10] Bawden, D. (2008) Origins and Concepts of Digital Literacy. In: Lankshear, C. and Knobel, M. (eds). Digital Literacies: Concepts, Policies and Practices, Peter Lang, New York.

[11] Ng, W. (2012). Can we teach digital natives digital literacy? Computers & Education, 59(3), 1065–1078. https://doi.org/10.1016/j.compedu.2012.04.016

[12] Rusydiyah, E. F., Purwati, E., & Prabowo, A. (2020). How to use digital literacy as a learning resource for teacher candidates in Indonesia. *Cakrawala Pendidikan*, *39*(2), 305-318.

[13] Eshet-Alkalai, Y. (2012). Thinking in the digital era: A revised model for digital literacy. Issues in Informing Science and Information Technology, 9(2), 267–276. https://doi.org/10.28945/1621

[14] Emami, A., & Amirghasemi, A. (2022). The Effect of CALL on the Vocabulary Learning of Iranian pre-intermediate EFL Learners. *Applied Linguistic Studies*, *1*(1), 70-88.

[15] Menggo, S., Midun, H., & Pandor, P. (2021, August). Students' digital literacy competence and English study habits. In *Proceedings of the 1st International Conference on Education, Humanities, Health and Agriculture, ICEHHA 2021, 3-4 June 2021, Ruteng, Flores, Indonesia*.

[16] Hamidah, N. (2021). Digital literacy in EFL teaching. *ELTALL: English Language Teaching, Applied Linguistic and Literature*, *2*(2), 90.

[17] Li, C., Cao, C., & Wang, Y. (2020). Exploring Digital Literacy Awareness in English Learning among Chinese Tertiary EFL Learners. In *2020 12th International Conference on Education Technology and Computers* (pp. 62-68).

[18] Mudra, H. (2020). Digital literacy among young learners: How do EFL teachers and learners view its benefits and barriers? *Teaching English with Technology*, *20*(3), 3-24.

[19] Armanda, M. L., & Yosintha, R. (2022). The role of critical digital literacy in foreign language learning: a survey on young learners. *Eternal (English, Teaching, Learning, and Research Journal)*, *8*(1), 160-173.

[20] Hasyim, F. (2021). The Level of Digital Literacy and Its Impact for Self-Regulated and Effective Language Learning. *IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature*, *9*(2), 619-631.

[21] Allan, D. (2006). *Oxford Placement test 1: Audio CD*. Oxford, UK.: Oxford University Press.

[22] Dashtestani, R., & Hojatpanah, S. (2020). Digital literacy of EFL students in a junior high school in Iran: voices of teachers, students and Ministry Directors. *Computer Assisted Language Learning*, *35*(4), 635-665.

[23] Eisenhardt, K. M. (1989). Building theories from case study research. Academy of Management Review, 14(4), 532-550. doi:10.5465/AMR.1989.4308385