On the Relationship between Iranian Intermediate EFL Learners' Digital Literacy and their Self-Directed Learning Process

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Abstract

Self-directed learning and digital literacy are the most effective issues in the process of foreign language learning. Due to the importance of digital literacy and self-directed learning in the process of foreign language learning, the present study aimed at investigating the relationship between Iranian intermediate EFL learners' digital literacy and their self-directed learning. For the purpose of the study, 210 male and female Iranian EFL learners from Mashhad English language institutes took part in the study through using convenience sampling method. The digital literacy and self-directed learning questionnaires were distributed among intermediate EFL learners to measure their attitudes towards digital literacy and the self-directed learning process. To conduct the study, a correlational design was used. The results of Pearson Correlation analyses revealed that there was a positive relationship between the Iranian intermediate EFL learners' digital literacy and their self-directed learning. The results of the multiple regression analyses also showed that information communication technology literacy and information literacy as the two components of the digital literacy questionnaire significantly predicted the Iranian intermediate EFL learners' self-directed learning. It can be concluded that high levels of digital literacy and self-directed learning tend to result in better academic performance and learning motivation. It is important that educational contexts, as well as language institutes administrators provide opportunities for enhancing learners' self-directed learning and media literacy and consequently improving EFL learners' achievement and motivation.

Keywords: Digital Literacy; EFL Learners; Information and Communication Technology Literacy; Information Literacy; Media Literacy; Self-directed Learning

1. Introduction

The world is changing rapidly, dramatically, and exponentially. This world is currently experiencing a new era as Bash (2003) described the information and technology age and the learners are asked to "solve problems independently and organically" (p.15). As an exhaustive term, Information and Communication Technologies (ICT) play an important part in both

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regular and remote education. ICT has created an innovative digital age in which learners and instructors acquire, enrich, change, present, and share knowledge. As a result, using new digital ICT tools increases learners' autonomy and allows them more freedom and flexibility in the process of learning a foreign or second language (Rhema & Miliszewska, 2014). Indeed, boosting learners' digital literacy can create a setting for self-directed learning.

According to Dabbagh and Kitsantas (2012), 'Digital literacy' is definedas a variety of literacies connected with the use of digital technology, including hardware, software, and other information used by learners and instructors for instructional and social purposes in educational contexts. Ferrari (2012) stated that "Digital literacy today includes the undrestanding, attitudes, and skills supposed to be applied to work with tech, use the net, understand media, and manage information. However, the transition of literacy to the digital environment is more than just the sum of its individual elements" (p. 16). Some studies (Liaw & Huang, 2011, Loperz et al., 2010; Nassoura, 2012) have shown that digital literacy enhances the academic success of the students in the language learning procedur. Furthermore, other studies (Nassoura, 2012; Rhema & Miliszewska, 2014) reveal that digital literacy can promote the learners' motivation and interaction in the educational settings. Liaw and Huang (2011) declared that that digital literate learner knows the information is required, constructs the information is needed, evaluates the contents efficiently and critically, integrates the new information with their prior knowledge base, uses the information to achieve the intended goals and understands the ethical, legal and socio-economic issues of educational technologies. Furthermore, digital literacy enables students to learn in a meaningful way through a variety of activities (Lopez et al., 2010).

Nassoura (2021) added that digital literacy allows learners to understand and interpret the content, improve their critical thinking and become more self-directed learner. One of the most crucial concerns in the process of learning a foreign language is self-directed learning. According to Azevedo et al. (2010), self-directed learning is an approach that makes the learning process more successful for learners. In this method, learners create objectives, develop plans, select strategies, self-evaluate, and self-monitor in order to improve the learning process and boost their intrinsic motivation (Azevedo et al., 2010). Self-directed education refers to mental procedures in which learners take an active role in learning tasks by employing various tactics and technologies, performing classroom activities, planning, and assessing their learning. According to Lamb et al. (2018), effective learners frequently credit their gains in language acquisition to active involvement with their desired language beyond the classroom.

As a result, in order to be successful with self-directed learning, learners must employ effective tactics. In this regard,electronic literacy in tech as well as self-directed education appear to be becoming increasingly popular for giving learners the freedom to study independently. Furthermore, according to Kohan et al. (2017), digital literate learners must be self-directed in controlling, analysing, using, and assessing their learning experience. According to Majedi and Pishkar (2016), independent learning connects to the idea of independence and self-worth and autonomy while learning if second language learners move to independent learning processes for independent learning. The objective of education in today's age, by teaching students how to change themselves for personal adaptation, to develop independence in independent actions and in general in language learning is of primary importance.

However, there are many problems for achieving self-directed learning and autonomous learners which calls for adaptive teaching in Iranian educational settings. Based on the study (Akbari, 2015), the difficulty of adapting the lessons to the needs of language learners, finding a teaching method that is useful for all language learners, lack of interest of some language learners in doing the language learning tasks, lack of using new technological tools in Iranian educational settings are the main problems of language learners in the process of foreign language learning. According to Akbari (2015) and Souriyavongsa et al. (2013), the primary barrier for Iranian students to acquire a another language is the conventional milieu that does not encourage them to be acquainted with that language. Furthermore, little attention has been paid to the issues such as EFL In technology literacy and their owndirected learning by learners, Iranian researchers specifically in relation to their learner' learning in the context of academic arena. Consequently, it is necessary for Iranian EFL learners to have a profound digital literacy and utilize self-directed learning strategies to overcome their difficulties in the process of learning a language (Akbari, 2015).) There have been few studies published that explore the integration and interconnectedness of the factors highlighted. As a result of the significance of digital literacy and the self-directed learning process, as well as the difficulties faced by Iranian EFL learners in completing their foreign languagee, it made sense to conduct this study to investigate the connection between Iranian intermediate concentrations EFL learners' electronic knowledge and their self-directed educational process. The following research questions were addressed by this study:

Q1. Is there any significant relationship between Iranian intermediate EFL learners' digital literacy and their self-directed learning process?

Q2. Can the components of digital literacy predict the Iranian intermediate EFL learners' self-directed learning process?

2. Review of Literature

2.1. Digital Literacy

Digital literacy has been referred to as "information and communication technology literacy" (Lau & Yuen, 2014), "computer and information literacy" (Fraillon et al, 2013), or other names that are similar. There are other meanings available besides to the several labels for this subject. the research of Lau and Yuen (2014), this is largely due to the fact that scholars frequently do study in isolation, resulting in no consensus on which components of the idea are crucial and must be addressed. Although there are many various interpretations of what digital literacy is, there is consensus that it involves a combination of abilities, expertise, and mindsets (Lau & Yuen, 2014; Thijs et al., 2014; Voogt et al., 2010). Several definitions of digital literacy might be presented, with a few examples described in further detail. The first definition is provided by Knaw (2012), who defines digital literacy as "the capacity to utilise electronic information and communication responsibly, as well as critically appraise the implications of usage" (p.8). This concept, on the other hand, appears to be largely concerned with the mindset required while accessing digital information, such as the significance of using information critically. However, it does not appear to place a high value on required skills and expertise. Fraillon et al. (2013) stated digital literacy as an person's capacity to use gadgets to look into, establish, and to interact so as to engage successfully in their own homes, at college, in work,

and in society. In accordance with Voogt et al., (2010), considering the explanations offered previously, it has been chosen to integrate both of them in a bid to bring together the strongest elements of each and create a more comprehensive one that concentrates on each of the three components: understanding, abilities, and mindsets required to operate a computer.

According to the scholars' explanations (Fraillon et al., 2013; Knaw, 2012), it is apparent that digital literacy is a complex ability that integrates new talents and humans must have skills in order to connect with today's digital environment (Fraillon et al., 2013). Learners today have access to the Internet, either at low or high speed, from home or from internet cafes; however, in order to maximize their use of information technology, they must have digital literacy to find information sources, manage their relevance and validity, process them efficiently, and assist in helping answer problems related to their academic improvement program (Knaw, 2012). According to Thohir et al. (2021), digital literacy helps the learners search, retrieve, manipulate, evaluate, synthesize, and create digital contents. According to Bawden (2001), the characteristics of literacy in tech are:

- People network awareness as a source of advise and assistance
- Knowledge accumulation or assembling a "trustworthy information horde" from several sources
- Information retrieval abilities, as well as "critical thinking" for making educated decisions regarding obtained information, including scepticism about the authenticity and thoroughness of online sources
- Reading and comprehending non-sequential and dynamic content; e. Managing incoming information with filters and agents.
- Knowledge of information is a framework that encompasses all forms of literacy,
- digital literacy in providing individuals with online reading and understanding abilities.

Several research have been conducted on the utilisation of technology in the classroom to teach languages (Astuti et al., 2021; Pepito, 2022). Astuti et al. (2021) used instructional autonomy as a moderating variable to examine the influence of technological proficiency on the level of accounting learning. This study employed a quantitative technique, with the research population consisting of 75 students from the Faculty of Accounting and Finance at Universitas Negeri Semarang (Indonesia) in 2017. Saturated sampling is the technique employed. The findings demonstrated that digital competence has no substantial and beneficial effect on the quality of learning, and that independent learning can decrease digital literacy's favourable influence on learning quality. Furthermore, Pepito's (2022) study sought to ascertain the individual and combined impact of digital proficiency and independent education on STEM (Sciences, Engineering, Computation Technologies, and Healthcare and Medical Sciences) students' online learning achievement. As a result, the study employed an informal, statistical explanatory correlation research approach. The study included undergraduate students from Davao City, Philippines, who were enrolled in any courses related to STEM. Three hundred (300) participants were chosen using a stratified sample procedure. The study's findings demonstrated a substantial link among digital competence and internet achievement in learning, as well as a link among self-directed learning and internet learning success. Heidari and Tabatabaee-Yazdi (2021) sought to discover any major disparities in the computer proficiency of Iranian EFL instructors and pupils. To carry out the research, 150 English as a

Second Language instructors and 175 Iranian EFL pupils took part. Participants in the research were given a digital competence survey with 181 Likert-scale items. The findings revealed that Iranian EFL instructors outperformed EFL learners in all three dimensions of information literacy, media literacy, and communication and information teachnology literacy (ICTL), with ICTL having the highest mean score of all.

2.2. Self-directed Learning

Humanistic theory and constructivist epistemology both support self-directed learning. A humanist learning perspective focuses on the needs of the learner and the possibilities of personal progress towards achieving one's (Groen & Kawalilak, 2019). According to Guglielmino et al. (2018), "self-directed learning" is an approach in which people take responsibility, with or without the assistance of other people, in identifying their educational requirements, creating learning goals, identifying both material and human assets for learning, choosing and carrying out suitable instructional methods, and evaluating learning outcomes.

The primary theoretical foundation of educational research is self-directed learning (Harrison, 1992). Tuf demonstrated in 1971 that grown-up learning is mostly self-paced and involves "a basic, conscious endeavour to gain (or otherwise adapt) particular information and abilities" (p. 1). Adults, according to Knowles (1975), have an intense desire for discipline and are driven by the understanding of why obtaining specific knowledge or abilities could be crucial in their life. Independent learning, according to Knowles (1975), is a basic human competency, having the capacity to acquire knowledge independently . At the same time, he believed it was incorrect to presume that adults had the requisite abilities for becoming effective self-directed learners. Knowles advocated for the development of autonomous learning in traditional schools, but cautioned that it was a high-risk endeavour, and that "students who attend these programmes without gaining self-management skills confront worry, frustration, and frequently failure."

An important effect of the study has been found as the enhancement of self-learning capabilities (Tohir et al., 2021). According to Moore (2007), most educational theories presume learners' willingness to gain adequate abilities in preparation, efficiency, and assessment to carry through their own learning. The most essential objective of formal education is to facilitate self-learning: methods must be developed to create a formal environment in which the emphasis is not on instructing but on learning.

Systems of independent learning have highlighted many aspects of self-directed learning. For instance, Brockett and Hiemstra (2018) emphasised the need of considering the learner's personality characteristics, such as the desire or inclination to assume ownership of the learning process. Yet, in an overview of Brockett and Hiemstra's findings, Flannery (1993) emphasised that it is also crucial to remember that independent learning is not achievable in all circumstances. Rather, the character of society at each particular moment affects the aims and means for education (Merriam et al., 1999).

Garrison (1997) aspires to provide a more comprehensive framework of self-directed learning. He argued that there are three parts to self-directed learning: self-monitoring (responsibility), self-management, and motivation (access/task). Motivation, according to Garrison, plays a very crucial role in beginning and maintaining effort. Metacognitive

reasoning and cognitive processes are involved in self-monitoring: "monitoring the synchronisation of learning techniques, in addition to knowledge and thinking about our thoughts" (p. 24). According to Garrison, "self-management" inside formal education may be a collaborative effort. Garrison contends that issues regarding authority have to reconcile academic requirements and norms (e.g., desired information) with student freedom and the obligation to develop personal meaning" (p. 23).

Several research on the influence of independent study on language teaching and learning have been undertaken (Alradini & Ahmad, 2022; Shuang, 2019). For instance, Alradini and Ahmad (2022) assessed if medical students were prepared for independent learning in a study population. The survey was distributed to bachelor students. Fisher's readiness scale, which comprised self-control, willingness to learn, and self-control, was employed. The Mann-Whitney U test, as well as bivariate and partial correlations, were used to analyse the data. When self-control was monitored, the areas of discipline and want to learn shown a positive association, whereas if the interest in learning showed regulated, there was evidence of a beneficial relationship among discipline and desire to learn. Self-directed learning readiness evaluation aids in determining the genuine value of learning on one's own in a specific environment. According to the study's findings, independent education cannot be depended on to maximise student learning. Shuang's (2019) research looked at self-directed learning and technological preparedness in a blended classroom setting. The goal of this study was to look at the impacts of self-directed learning, preparedness for the internet, and desire to acquire knowledge on all three levels (social, studying, and cognition) across students who were taking either academic and non-academic classes. According to the results, the educational environment fosters students' social interaction in the classroom to a great degree. In an academic context, students' technological preparedness is much more crucial in deciding how classroom attendance is influenced.

Hasani and Sarrafzadeh (2021) calso onducted a recent study to examine the association among technological proficiency and self-education amongst Sharif Polytechnic students. The Desire to Gain Knowledge dimension's fundamental premise is that inspiration is vital in taking action, encouraging learning attempts, and reaching mental goals. Learners (female and male) with degrees in higher education are about equal. A random sample approach was adopted, with 30 students (15 men and 15 females) chosen at random from each group. The primary research techniques were digital abilities and independent study questionnaires. The findings revealed a favourable and substantial association between students' self-learning and their degree of digital abilities.

3. Method

3.1. Participants and Setting

The setting of the study was English language institutes (about 30 institutes) in Mashhad. The participants of the present study were 210 EFL learners (among 420 learners) based on the Table of Morgan (Krejcie & Morgan, 1970), within the age range of 18 to 32 (M = 25), studying English language at different English language institutes of Mashhad located in Iran. Based on the delimitation of the study, all of the participants were at the intermediate level of language proficiency (The level of the learners was determined by using the Oxford

placement test). Both male (N= 99, 47.14%) and female (N=111, 52.86%) EFL learners participated in the study but gender differences were not the main concern of the study. The study used the convenience sampling procedure for choosing the EFL learners.

3.2. Instruments of the Study

3.2.1. Quick Oxford Placement Test. To determine the level of the participants as intermediate EFL learners, the Oxford quick placement test (Phillips, 2005) was administered. This test included 60 multiple-choice questions and the learners had 30 minutes to answer the questions. Furthermore, the test included two parts the first part is related to the grammar and vocabulary items (30 items), and the second part is related to the reading comprehension questions (30 items). The maximum score for the placement test was 60 and the learners who score between 30- 47, were selected as the target participants of the study.

3.2.2. Digital Literacy Questionnaire. The Digital Literacy questionnaire had three dimensions, namely: (a) information and communication technology literacy (17 indicators); (b) media literacy (5 indicators), and (c) information literacy (12 indicators). Indeed, the English version of the questionnaire included 34 items which have been designed and validated by Hesti and Dwityas (2019). Furthermore, this questionnaire was based on a 5-point Likert-type scale including 1(*Strongly Disagree*), to 5 (*Strongly Agree*) which assessed the learners' digital literacy in three dimensions. The reliability of the questionnaire was .75 (Hesti & Dwityas, 2019) and it was reliable enough to be employed in the study. They needed 20 minutes to answer the items on the questionnaire.

3.2.3. Self-directed Learning Questionnaire. This questionnaire (English version) included 43 items which have been designed and validated by Xuan et al., (2018). It is categorized under the three constructs of self-directed learning (a) motivation (11 items), (b) awareness (12 items), and (c) language learning strategies (20 Items). In this survey questionnaire, a 5-point Likert-like measurement scale was employed ranging from 1(*Strongly Disagree*) to 5 (*Strongly Agree*). The reliability of the questionnaire was .78 (Xuanet al., 2018) and it was reliable enough to be used as the third instrument of the study. They needed 20 minutes to answer the items on the questionnaire.

3.3. Procedures

Prior to data collection, verbal permission was obtained from the managers of the English language institutes of Mashhad. The study was undertaken in several private English language institutes in Mashhad, a city in Northeast Iran, between October 2022 and November 2022. To examine the level of the participants (N=420) as intermediate EFL learners, a Quick Oxford placements (Oxford, 2001) test was administered. As mentioned above, 210 Iranian intermediate EFL learners within the age range of 18-32 took part in the study. After ensuring the level of the participants as intermediate EFL learners, they were invited to join a group on Telegram. Then the researcher elaborated on the main goals of the study to the EFL learners. To increase the credibility of the responses to the questionnaires, the researcher was informed to remind the learners that they should be sincere in their answers, and it was agreed that for

getting more valid results, the learners were allowed to respond to the questionnaires at home. Next, the two questionnaires (the digital literacy and self-directed learning questionnaires) were distributed among the participants using Telegram. Furthermore, the learners had 40 minutes to answer the items on the questionnaires. After having finished the questionnaires, the answer sheets were gathered, marked, and entered into the SPSS software for data analysis.

3.4. Study Design

To assess the relationship between EFL learners' digital literacy and their self-directed learning, a correlational design was used. Correlational research is a type of non-experimental research method in which a researcher measures two variables, understands and evaluates the statistical relationship between them without the influence of any external variable. In addition, the quantitative method was used to answer the research questions. The quantitative research process was the collection, analysis and interpretation of non-numerical data.

3.5. Data Analysis Method

To analyze the data gathered from the two questionnaires of the study, SPSS software version 26th was used. To answer the first research question of the study, Pearson Correlation was employed and to answer the second research question, Multiple Regression was used.

4. Results

4.1. Results of the First Research Question

The first goal of the study was to assess the relationship between Iranian intermediate EFL learners' digital literacy and their self-directed learning process. To answer the first research question of the study, the Pearson correlation was used. The results are shown in Table 1.

Table 1

Results of Pearson Correlation for the Two Variables of the Study

		DLN	SDLN
DL	Pearson Correlation	1	.66**
	Sig. (2-tailed)		.000
	N	210	210
SDL	Pearson Correlation	.66**	1
	Sig. (2-tailed)	.000	
	N	210	210

The Pearson Correlation was run to determine the relationship between Iranian intermediate EFL learners' digital literacy and their self-directed learning. There was a positive and strong correlation between these two variables, which was also statistically significant (*rs* = .66, *p* <.05). Thus, it is concluded that there is a statistically significant relationship between Iranian EFL learners' digital literacy and their self-directed learning.

4.2. Results of the Second Research Question

The second goal of the study was to predict the relationship between the components of learners' digital literacy and their self-directed learning. After ensuring that the data of this

study did not violate the assumptions of multiple regressions, a standard multiple regression was run to find the most effective digital literacy components in predicting language learners' self-directed learning. The results of descriptive statistics for the components of digital literacy as the predictors and the learners' self-directed learning as the dependent variable are shown in Table 2.

Table 2

Results of Descriptive Statistics for the Components of Digital Literacy and the Learners' Self-directed Learning

	Mean	Std. Deviation	N
Self-directed Learning	170.06	13.55	210
Information and Communication Technology Literacy	66.03	6.64	210
media literacy	16.85	4.87	210
Information Literacy	42.36	6.05	210

As seen in Table 2, the mean score of the learners in the self-directed learning questionnaire was 170.06 and the standard deviation was 13.55. The mean of the scores of the learners in *Information and Communication Technology Literacy* as the first component of *Media Literacy* was 66.03 and the standard deviation was 6.64. Furthermore, the mean of the learners in the *media literacy* as the second component of the media literacy questionnaire was 16.85 and the standard deviation was 4.87. Finally, the mean of the scores of the learners in *Information Literacy* as the third component of media literacy was 42.36 and the standard deviation was 6.05. The results of the model summary are shown in Table 3.

Table 3
Model Summary of the Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.77[a]	.59	.59	8.67

As seen in Table 3, the correlation value between the components of digital literacy and self-directed learning was .77 and this value shows the strong correlation between the components of digital literacy and self-directed learning. Furthermore, the adjusted R square is .59 and this means that our model explains 59 % of the media literacy components of learners' self-directed learning. Table 4 shows the results of the ANOVA test.

Table 4
ANOVA Test for Predictors

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22885.42	3	7628.47	101.45	.000[b]
	Residual	15489.52	206	75.19		
	Total	38374.95	209			

The results of the ANOVA test (Table 4) show that the predictive power of the model is statistically significant ($F_{(4,278)} = 9.505$, $p<.000$). Indeed, the results showed that the components of digital literacy predicted the learners' self-directed learning.

Table 5
Coefficient for Predictors

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	60.75	6.74		9.00	.000
	ICTL	1.47	.09	.72	15.20	.000
	ML	.19	.13	.06	1.46	.14
	IL	.19	.10	.08	1.96	.04

As seen in Table 5, the predictors were information communication technology literacy (ICTL), media literacy (ML), and information literacy (IL), and the dependent variable was the self-directed learning variable. The results showed that the information communication technology literacy (ICTL) and information literacy (IL) as the two components of digital literacy significantly predicted the Iranian intermediate EFL learners' self-directed learning since the levels of significance were less than 0.05 ($p<.05$) and the second component of digital literacy (i.e. Media Literacy (ML)) did not significantly predict the relationship between the components of digital literacy and EFL learners' self-directed learning process ($p>.05$).

5. Discussion

The purpose of the study was to investigate the relationship between Iranian intermediate EFL learners' digital literacy and their self-directed learning. The first result of this study was that there was a strong and positive relationship between Iranian intermediate EFL learners' digital literacy and their self-directed learning. The results of the study support the results of the study of Shuang (2019). He investigated the relationship between EFL learners' self-directed learning and technology readiness. The results showed that there is a strong relationship between self-directed learning and technical readiness of EFL learners. He added that the technology environment provides excellent support for the social participation of students in the classroom. In addition, the results of the study are consistent with the study of Hasani and Sarrafzadeh (2021). Their objective was to determine the relationship between digital literacy and self-directed learning among Sharif University of Technology students (IT students). The results showed that there is a positive relationship between students' digital literacy and their self-regulated learning.

The second goal of the study was to predict the relationship between the components of EFL learners' digital literacy and their self-directed learning. The findings of the study showed that information communication technology literacy (ICTL) and information literacy (IL) as the components of digital literacy significantly predicted the EFL learners' self-directed learning. The findings are compared to Astuti et al., (2021) who measured the digital impact on the quality of textbooks using special education as a positive variable. The study showed that there is no significant and positive effect of literacy on the level of students' learning (Negeri Semarang) and learning because the individual can change the quality of students' learning. On

the other hand, the findings are consistent with the research conducted by Pepito (2022) who tried to identify the individual and combine the effects of digital education with the individual in STEM (Science, Engineering, Computing Technologies, and Health and 'Medical) best online courses for college students. A number of studies have shown that literacy and self-directed learning have a unique and mediated effect on the success of online students.

As a result, the more students use digital literacy, the more they will be able to learn independently. The results of this study showed the importance of improving students' digital literacy and ICT skills, especially in preparing them for self-directed learning (self-directed learning). A central theme of this study was that digital literacy enabled students to create real-world experiences in educational settings. Finally, digital literacy environments provide information that enables students to learn independently (Hasani & Sarrafzadeh, 2021) and provides access to information that helps EFL students learn a foreign language.

6. Conclusion

The results show that there was a positive relationship between Iranian intermediate EFL students' digital literacy and their self-directed learning and the components of digital literacy siggninifctnly predicted the Iranian EFL learners' self-directed learning. It may be found that higher levels of digital literacy and self-directed learning lead to increased achievement and motivation to learn. By using digital literacy, EFL learners unconsciously develop components such as metacognition, strategic action and motivation, which are sources of self-directed learning. Based on the findings and discussion sections of this study, EFL learners outside the classroom need an understanding of various strategies to clarify learning goals in the early stages of the learning process. In addition, it can be assumed that EFL learners have remarkable skills in managing digital learning platforms and thus can access and use electronic information. It can be concluded that the more students use digital literacy, the more competent they become in independent learning. The results of this study suggest that it is important to improve students' digital literacy and ability to use information technology, especially to prepare them for self-direction.

The results of the study are important for teachers, students, leaders of language institutions, policy makers, the Ministry of Education and other members of the educational community who are trying to improve teaching. . The results of this study can help students learn more about self-learning and digital literacy. When students know their own learning and media literacy beliefs, they can use appropriate methods to make students more interested in learning, which can lead to finally finished. In addition, the teacher is responsible for guiding and facilitating the students' learning. Therefore, teachers must be well trained and knowledgeable about modern teaching and learning techniques and tools. Designing and implementing digital literacy for teachers is a challenging task, as it must be an enriching learning experience for all students. In addition, persuading teachers to continue learning and develop themselves professionally; adapting and implementing new teaching and learning techniques is a huge task in training students to be self-learners. Finally, it is important to provide opportunities (by providing a technological learning environment) to the educational environment and language institute managers to improve self-learning and digital literacy for students and thus improve student performance and motivation.

In order to obtain more reliable results, it is recommended that other studies be conducted with a larger sample of the EFL learner population. It is also recommended to consider a wider geographical area so that the population can obtain more reliable and generalizable results. In addition, in this study, data was collected using a questionnaire. Finally, to get a more complete picture of students' digital literacy and independent learning, it would be better in future studies to also provide classroom observation assessments.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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