

Are Our Students Digitally Ready? An Assessment of Algerian Higher Education EFL Students Digital Literacy Skills

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Abstract: The acquisition of the English language as an imperative functional skill is no longer restricted to achieving a certain level of English proficiency that enables the speakers to communicate fluently in a variety of contexts. Due to the Algerian Policy efforts to digitize education, there is an inevitable need for other skills that go hand-in-hand with the acquisition of English as a foreign language (EFL), one of these skills is digital literacy which is considered a challenging factor that may affect the success of technology integration in education. This quantitative study aims to assess Algerian EFL students' digital literacy skills level by administering a questionnaire, adapted from the Cambridge Life Competencies Framework (2022) to a sample composed of 101 students. The descriptive analysis of the data collection that was accomplished via the data analysis tool SPSS 21 reveals that Algerian EFL students have an average level of digital literacy skills with a slight discrepancy in their levels, for either technical or cognitive skills. Therefore, the target Algerian EFL students tend to be more digital consumers than competent users; their average confidence in digital technology use should be considered by

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the stakeholders to ensure efficient and effective engagement of students in digital teaching and learning contexts.

Keywords: Algerian EFL students; Cambridge Life Competencies Framework; digital literacy; technology

الملخص: اكتساب اللغة الإنجليزية كمهارة وظيفية ضرورية لم يعد يقتصر على بلوغ مستوى معين من الإتقان الذي يسمح للمتحدثين للتواصل بطلاقة في شتى سياق الكلام. بفضل جهود السياسة الجزائرية لرقمنة التعليم أصبح هناك ضرورة حتمية لمهارات أخرى تتماشى جنباً إلى جنب مع اكتساب اللغة الإنجليزية كلغة أجنبية. من بين هذه المهارات مهارة محو الأمية الرقمية التي تعتبر عامل تحدي قد تؤثر على نجاح إدماج التكنولوجيا في قطاع التعليم. تهدف هذه الدراسة الكمية إلى تقييم مستوى مهارة محو الأمية الرقمية لدى عينة من طلاب جزائريون يدرسون اللغة الإنجليزية كلغة أجنبية عن طريق توزيع إستبيان إلكتروني مأخوذ بتصرف من هيكل كامبريدج لمهارات الحياة لسنة (2022) على عينة من الطلبة متكونة من 101 طالب و قد بين التحليل الوصفي لمجموعة المعلومات الذي تم بواسطة برنامج الحزمة الإحصائية للعلوم الإجتماعية 21 أن عينة الطلاب الجزائريون الذين يدرسون اللغة الإنجليزية كلغة أجنبية لديهم مستوى متوسط لمهارة محو الأمية الرقمية مع تباين في المستوى بين الطلبة سواء في المهارات التقنية أو المعرفية. و بالتالي فإن عينة الطلاب الجزائريون الذين يدرسون اللغة الإنجليزية يميلون لأن يكونوا مستهلكون رقميون أكثر من كونهم مستخدمون كفو و عليه يجدر من الجهات المعنية أن تأخذ بعين الاعتبار مستواهم الرقمي المتوسط من أجل ضمان تفاعل فعال للطلبة في سياقات التعليم و التعلم الرقمية.

الكلمات الدالة: التكنولوجيا؛ طلاب جزائريون يدرسون اللغة الإنجليزية كلغة أجنبية؛ محو الأمية الرقمية؛ هيكل كامبريدج لمهارات الحياة

Introduction:

The 21st Century Algerian EFL students are immersed in teaching and learning contexts that are highly affected by technology; grammar and communicative competence are not the sole variables that are involved in the process of EFL teaching and learning due to the use of technology, its swift innovations, and its paramount influence and need in the teaching and learning. Given that technology is a vital tool that can assist teachers and students attain an advanced level of English proficiency as the English language is one of the prerequisite functional skills in this digital era, the Algerian policy attempts to digitize the field of education

and fulfill the requirements of the global market. However, technology is a two-edged sword; despite the myriad advantages it offers to enhance, support, improve, and accelerate the learning process it imposes its own challenges on teachers and students, on the one side, and reshapes the process of teaching and learning, on the other side. Digital literacy is one of these challenges, scholars and researchers such as Sadaf and Johnson (2017) and Cambridge experts (2022) claim that the digital generation may not necessarily be digitally literate, Hall, Atkins, and Fraser (2014), Hubbard (2023) et al. also opine that for appropriate implementation of technology, students readiness has to be ensured. This left room to question students' confidence and cognitive abilities in technology use.

This study aims to assess Algerian EFL students' digital literacy skills level in order to identify the gaps in technology-based learning. The drive of this research is the following question:

- Do Algerian EFL students have the digital literacy skills that enable effective and efficient technology-based learning?

I. Digital Literacy Conceptualization

The term digital literacy was first used in the United States by Paul Gistler in his seminal work 'Digital Literacy' (1997), but the essence of this term has been evolving since then mainly this is due to the innovations in technology. The original significance of the term was expansive with much focus on the technical skills as a point of departure to go further beyond the famous Gistler's (1997) conceptualization that 'digital literacy' is about developing intellectual capabilities rather than mere technical proficiency. The American Library Association maintains that digital literacy encompasses technical and cognitive skills; it is the capacity to locate, assess, produce, and share information through digital technologies. Although mastering the basic skills of ICT is a prerequisite, there has been a change in focus within the definition of digital literacy, with greater emphasis now placed on cognitive abilities. The most frequently referenced definition of digital literacy provided by Martin (2005) lists a set of important skills; awareness, attitude, adeptness at digital tools, communication, and

higher-order-thinking skills which enable people to discern the credibility of information, judge the reliability of data, and synthesize or build new blocks of knowledge. In the same line of thought, Chan, Churchill, and Chiu (2017) also stressed that higher-order thinking skills are mandatory for digital tools users.

II. Cambridge Life Competencies Framework

The Cambridge Life Competencies is an evolving framework that was developed to delineate understanding, competencies, and attitudes that the 21st-century students should demonstrate, and help educators in training qualified human resources. The framework is composed of three core competencies; producing digital content, online engagement, and digital well-being (Table 1). Each competency is further elaborated into a set of components and Can Do statements to depict what a digitally skillful student can do. This framework focuses more on English language teaching because; first, much of the online content is written in English, second, there is an overlap between digital literacy skills and English learning skills such as communication and collaboration.

Table 1: Core Areas and Components of Digital Literacy Skills

Core Area	Components
1. Using tools and creating digital content	Developing techniques for searching and managing digital data, information and content
	Making critical judgments about digital data, information and content
	Selecting and using appropriate digital tools for specific purposes
	Creating digital content to solve a problem or complete a task
2. Sharing and interacting online	Connecting and interacting with others using appropriate technology
	Collaborating with others digitally to

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	complete a task
	Interacting appropriately in a digital space
3. Safety and wellbeing online	Staying safe online
	Maintaining personal wellbeing
	Safeguarding digital systems and devices

Note. From The Cambridge Life Competencies Framework (2022, April 5)

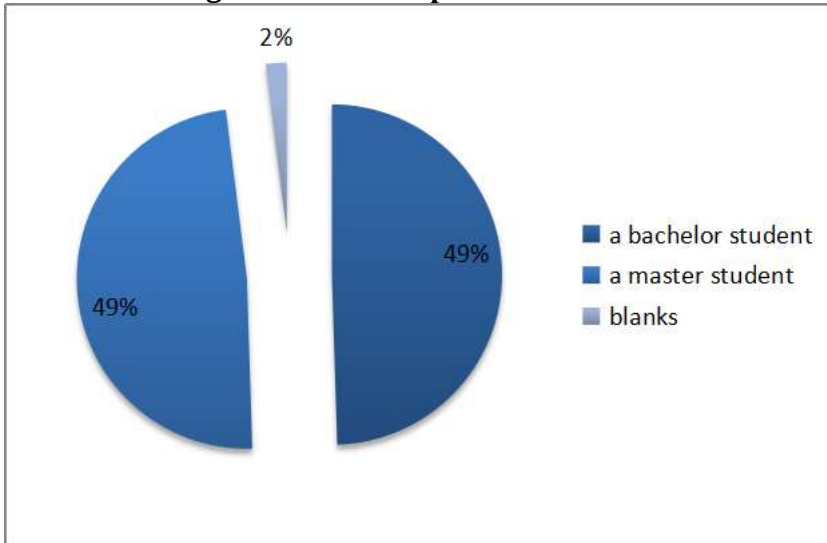
III. Methodology

The current paper is a quantitative investigation that focuses on assessing the digital literacy skills of 101 Algerian EFL students. The study opted for the use of an online questionnaire as a research tool to reach a representative amount of respondents, and the questions were adapted from the Cambridge Life Competencies Framework which was designed by educational experts to help assess and develop students' digital literacy skills. The link of the questionnaire was administered to students via social media platform; Facebook during the first semester of the academic year 2023-2024. The first part of the questionnaire includes general information questions about students, and the second part is 10 Likert-scale statements that refer to three core competencies of digital literacy; using tools and creating digital content, sharing and interacting online, and safety and wellbeing.

IV. Findings

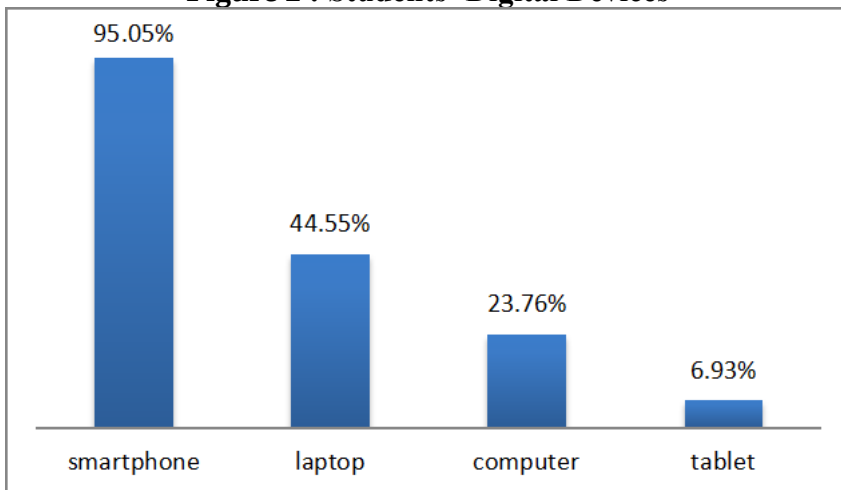
The descriptive analysis of the data collection using the data analysis tool SPSS 21 revealed that the number of bachelor student respondents is equal to that of master student respondents; 49% (Figure 1).

Figure 1 : The Respondents' Profile



95% of the respondents have smartphones, and 44.5% have laptops as digital devices (Figure 2).

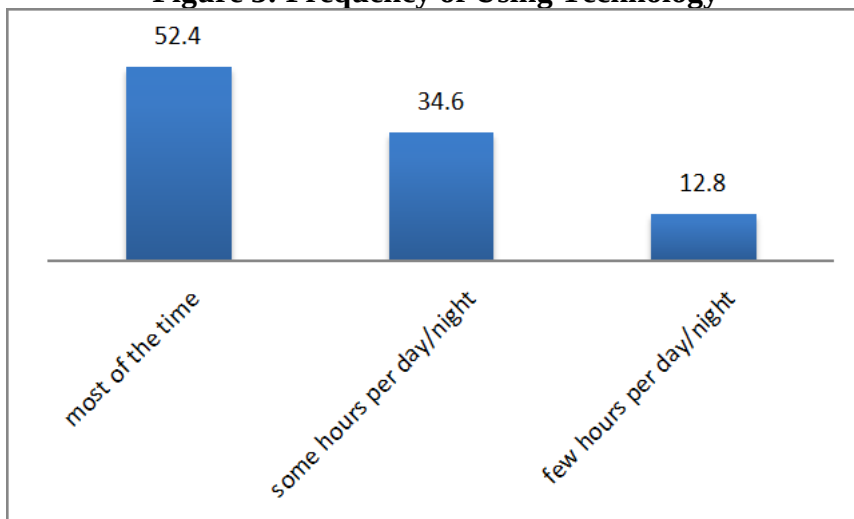
Figure 2 : Students' Digital Devices



The frequency of using the digital devices varies from 52.4% for most of the time to 12.8% for few hours per day/night (Figure 3).

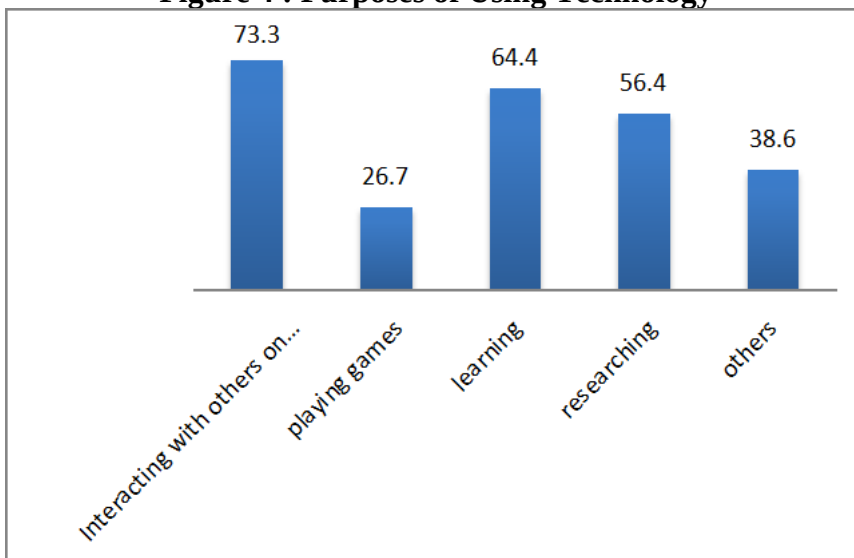
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Figure 3: Frequency of Using Technology



In addition, the purpose of using technology was significantly marked for interacting with others 73.3%, learning 64.4%, and researching 56.4% (Figure 4).

Figure 4 : Purposes of Using Technology



The mean of the four Can Do statements (details in Table 2) which refer to the first core area; using tools and creating digital content ranges from 3.3 to 3.5, while 1 denotes strongly disagree and 5 denotes strongly agree. The standard deviation of students' agreement about these statements ranged from 1.1 to 1.3.

Table 2: Can Do Statements of Using Tools and Creating Digital Content

Likert scale statement (Can Do)	N	Minimum	Maximum	Mean	Std. Deviation
1. I can use advanced search techniques within standard search engines and academic databases to access the most relevant content.	101	1	5	3.47	1.11
2. I can independently evaluate the quality value and relevance of information found online according to the needs of a task or project.	101	1	5	3.56	1.21
3. I can select appropriate websites and software for interactive learning.	101	1	5	3.56	1.29
4. I can select and use arrange of digital formats to create content appropriate for a specific audience or purpose.	101	1	5	3.37	1.22
Valid N (listwise)					

Notes. 5 strongly agree; 4 agree; 3 neutral; 2 disagree; 1 strongly disagree

The mean of the three Can Do statements (details in Table 3) which refer to the second core area; sharing and interacting online varies from 3.1 to 3.5 and the standard deviation is around 1.1.

Table 3: Can Do Statements of Sharing and Interacting Online

Likert scale statement (Can Do)	N	Minimum	Maximum	Mean	Std. Deviation

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5. I can critically evaluate the advantages and disadvantages of connecting with others through different digital means for a range of purposes and contexts.	101	1	5	3.51	1.11
6. I can choose the most appropriate means of digital collaboration with peers in a range of contexts.	101	1	5	3.42	1.10
7. I can adapt communication styles and strategies appropriately for different audiences (e.g. by taking into account generational and cultural differences) in a range of digital contexts.	101	1	5	3.15	1.16
Valid N (listwise)					

Notes. 5 strongly agree; 4 agree; 3 neutral; 2 disagree; 1 strongly disagree

The mean of the three Can Do statements (details in Table 4) related to Safety and Wellbeing online is from 3.1 to 3.4, while the standard deviation is approximately around 1.1.

Table 4: Can Do Statements of Safety and Wellbeing Online

Likert scale statement (Can Do)	N	Minimum	Maximum	Mean	Std. Deviation
8. I can identify legal aspects linked to online behaviours including cyberbullying, harassment,	101	1	5	3.34	1.09

and publishing content without consent.					
9. I can describe potential physical and psychological problems caused by the use of technology, and discusses strategies to prevent or reduce these problems.	101	1	5	3.40	1.17
10. I can alert relevant authorities when personal data has been stolen or when an account has been hacked.	101	1	5	3.19	1.12
Valid N (listwise)					

Notes. 5 strongly agree; 4 agree; 3 neutral; 2 disagree; 1 strongly disagree

V. Discussion

Surfing the net and using digital tools, software, and apps for learning English as a foreign language requires a range of skills that can ensure effective and efficient digitization of education. This study focuses on assessing EFL students' digital literacy as one of the important skills students have to master for better use of technology for learning.

The results of this study, first, indicate that the participants are frequent consumers of digital technology. Self-assessment of their consumption time is highly marked for most of the time (52.4%). These findings are similar to Zan et al.'s (2020) study on the digital literacy skills of faculty of letters students who spend extensive Internet use. Nevertheless, their study also revealed that there is an effect of daily Internet usage on student digital literacy levels.

The participants use technology for a variety of reasons, but they mainly use it for socialization and learning. A study of

language learners' digital literacy conducted by Son et al. (2017) also indicates that students use technology mostly for learning and socialization.

The target sample has average levels of using digital tools and creating digital content; they are not qualified enough to search for resources; they are not proficient enough to evaluate the quality of information and discern its relevance and appropriateness; and their ability to produce content is also medium. This implies that the participants tend to be consumers of digital content more than producers, yet their consumption of digital content is less confidential. These findings are confirmed in the Silvhiany et al. (2021) study; the digital literacy abilities of EFL participants to critically evaluate online information were low.

The findings of this research indicate that the participants are not aware enough of their online interactions. Despite the amount of time spent online and the aim of using digital technology for socialization and learning that was marked as high, their abilities to identify misbehaviors such as cyberbullying and physical and psychological problems are average. This may leave room to question their online safety and wellbeing.

The current study reveals that the participants have an average level of digital literacy skills; the mean of the Likert scale statements does not exceed 3.5. Son et al. (2017) concluded that results obtained via students' assessment of their online know-how do not necessarily indicate their actual practical knowledge of digital literacy. Moreover, the descriptive statistics show that there is a disparity in students' digital abilities; the standard deviation in the respondents' assessment of their abilities reaches 1.3. This indicates that the target Algerian EFL students have different levels of digital abilities.

Conclusion:

The lines of this research shed light on Algerian EFL students' digital literacy skills level. The questionnaire that was adapted from Cambridge Life Competencies assists in gauging their overall abilities with regard to digital technology use for education. The

findings reveal that Algerian EFL students have different levels of confidence in using digital technology. However, this study gauged the participants' general digital literacy abilities and could not delve into their critical thinking and cognitive abilities. Students are exposed to large amounts of online data for a significant amount of time, but less is known about the type and credibility of the data they consume, how they select it, and why. Therefore, further studies are highly recommended to ensure students' readiness for incorporating technology into education. Stakeholders and educators' roles are mandatory in raising students' awareness and digital literacy skills by focusing on practical ways of using technology appropriately rather than theoretical training.

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