Does (not) Digital Technology Pave the Way to Promote Learning Autonomy of First Year Students of English at Skikda University

Nezha BADI
n.badi@univ-skikda.dz
University of 20 Août, 1955, Skikda
 (Algeria)

Abstract:
       The present study investigates the perceptions of English as a foreign language (EFL) students and their teachers at Skikda University of the effectiveness of using digital technology to grant the autonomy required in learning. Although the findings of the questionnaire administered to 60 students and the interview conducted with six teachers revealed that they have a positive attitude towards digital technology in raising learners' control over their learning process, they seem to be ambivalent. Both teachers and students reported some challenges related mainly to poor internet connectivity, classroom noise, and the limited time devoted for classroom instruction.
Keywords: autonomy; digital technology; EFL students and teachers; perceptions.

INTRODUCTION

   With the rapid increase of Information and Communication Technologies (ICTs), there has been a drastic change in the teaching learning environment in the last three decades, and English as a foreign language (EFL), is no exception, resulting in reconfiguring traditional teaching programs for a more technology-based classroom. This transition urged students to process with new digital technologies to shift from a teacher centred paradigm to a more learner centred focus. The latter which is generally referred to as 'autonomous learning', 'self-reliance learning' or 'independent learning' has been claimed to be promoted with the spread of technology in the educational field (Baru et al. 2020; Martha et al. 2021; Saeed, 2021). Therefore, the present study aimed to address the following research questions:

1. Are Algerian university students and teachers aware of autonomous learning in the EFL classroom?
2. Does digital technology foster autonomous learning among first year students at Skikda university?
3. To what extent do EFL teachers and learners face difficulties with the implementation of technology in the classroom to achieve learning autonomy?

1. Literature review
1.1. Learning autonomy

While a variety of definitions of the term 'autonomy' have been suggested, they all agree that autonomy is: " The ability to take charge of one's own learning. To take charge of one's learning is to have the responsibility for all the decisions concerning all aspects of this learning" (Holec, 1981, p. 3). Additionally, Benson (2001) in his definition for the term as having control over one's learning suggested that autonomy is a natural capacity that might be endorsed within a comfortable and a more suitable learning environment. It is, thus, suggested that promoting learning autonomy is essential in the EFL context as it makes learners critical thinkers, self-direct and self-evaluate their own learning, and hence effective participants in their social lives (Lengkanawati, 2016). Accordingly, to develop learners' ability to learn independently and become more autonomous, there has to be a change in their teachers' practices. One suggested approach is the use of technology which provides more opportunities for learners to become self-directed and independent learners through being responsible for their own learning (Purnawarman, 2018).

1.2. Technology use in education

Digital technology refers to the different electronic devices, websites, and platforms used in different disciplines for the purpose of facilitating interaction and communication. Examples of technological tools used in the field of education include laptops, smartphones, tablets, google applications (google meet, google classroom), which have been claimed to lead to better teaching and learning outcomes as they make the classroom more engaging, interactive, innovative, and enjoyable as shown in Figure 1.

Fig.1. Features of digital classroom (Haleem et al, 2022, p. 277)
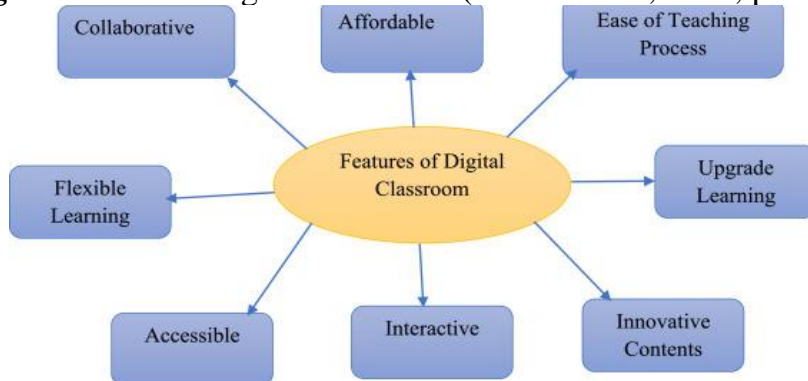
1.3. Digital technology and autonomous learning

Numerous studies have attempted to explain the role of technology in learning autonomy. Most of those reported studies demonstrated the effectiveness of digital technological tools in fostering independent learning among learners. For example, the results of a study conducted by Lenkaitis (2020) demonstrated that using videoconferencing as an innovative technological tool helped to a large extent in increasing students' interaction, engagement in the learning process because it provides them with authentic

exposure to the target language, and hence increased their sense of autonomy. Similarly, Warni et al. (2018) in a mixed-method study found that the use of information and communication technology tools (ICTs) encouraged students to develop their autonomy. That is, students were more motivated, interested, aware of the different learning strategies (metacognitive strategies mainly) within the digital classroom based on ICTs.

In the same line of thought with Lenkaitis and Warni et al., Lai (2019), and Kassens-Noor et al. (2023) have demonstrated that technology plays a vital role in enhancing learning autonomy. Taken together, these findings further support the idea of promoting autonomy using digital technology. Technology-based classroom would be more relaxing and motivating for both teachers and learners to interact with each other effectively and successfully. Students are no more just receivers of the knowledge as within a teacher-centred approach emphasized within the traditional face to face classroom., they are now more open to a variety of opportunities to control their learning, be responsible for their own learning, and reduce their overreliance on the teacher.

2. Research methodology and design

Drawing upon the present research study questions, a mixed method approach combining both quantitative and qualitative data collection instruments was adopted. Generally speaking, while quantitative approaches collect data which are analysed numerically including questionnaire surveys, qualitative data such as interviews are collected using a number of methods, which can be analysed through verbal means. The present study follows the exploratory research design to explore both EFL students' and teachers' perceptions of the role played by the classroom-based-technology in fostering learners autonomy. Therefore, within the scope of this research, a quantitative and qualitative research design was used to obtain the needed results. The current study aims at exploring and understanding the perceptions of both students and teachers regarding the role of technology in promoting EFL learners' autonomy. Therefore, a questionnaire and a semi-structured interview were administered to EFL teachers and students to answer the research questions and offer some important insights into the topic under investigation

2.1. Participants and sampling

The present research was conducted in the Department of Letters and Foreign Languages at the University of 20 Août 1955- Skikda. The target population of this study consisted of three hundred sixteen (316) first-year EFL learners and their teachers. From the total population, a random sampling approach was adopted and 60 students participated in answering a questionnaire. Six teachers were also invited to take part in a semi-structured interview to capture their views about bettering EFL students autonomous learning through technology.

3. Quantitative findings of the students' questionnaire

Students' perceptions of the role of digital technology in fostering their learning autonomy were addressed in this study using a questionnaire. Frequencies and percentages were calculated for a series of questionnaire items to provide insights into students' perceptions.

3.1. Reliability of the questionnaire

For the internal consistency of the questionnaire, reliability test using Cronbach's alpha was calculated. Students' responses to the different items were entered into SPSS 26. The Cronbach's alpha calculated was .7.64 (Table1). Therefore, the questionnaire seemed to be of acceptable internal consistency as suggested by Pallant (2116, p.119) "values above .7 are considered acceptable; however, values above .8 are preferable".

**Table1.** Reliability statistics of the students' questionnaire

Cronbach's Alpha	Number of Items
0.764	25

3.2. Students' awareness of learning autonomy

Five items on the questionnaire measured the extent to which Algerian first year EFL university students are familiar with autonomy in learning. Students were, first, asked about the different roles they are assigned to them in the classroom, their independence on their teachers, and the obstacles they come across and that prevent their independent learning in the EFL classroom. Students' responses to the different items of this section are presented below.

### 3.2.1. Students' roles in the EFL classroom

Fig. 2. Roles to do by students in the classroom
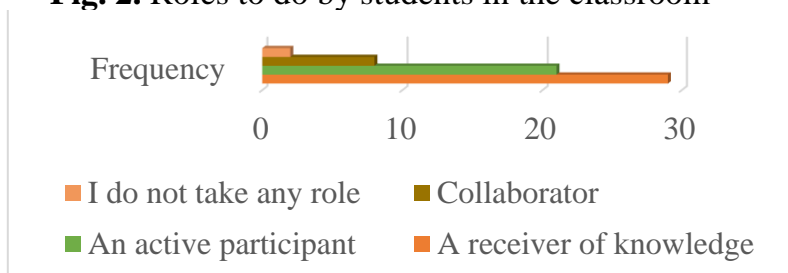
In response to the question: 'which of the following roles do you take in the classroom?', a range of responses was elicited. Out of the 60 students who answered the questionnaire, only two students commented that they do not take any role, while eight students considered themselves as collaborators. Approximately half of the participants (29 students) reported that they are just received of knowledge (passive) in the classroom compared to 21 participants who opted for the active role. This finding might be attributed to the traditional way of teaching imposed by most of the teachers in the EFL classroom.

3.2.2. Students' reliance on their teachers

Fig .3. Students' reliance on the teacher
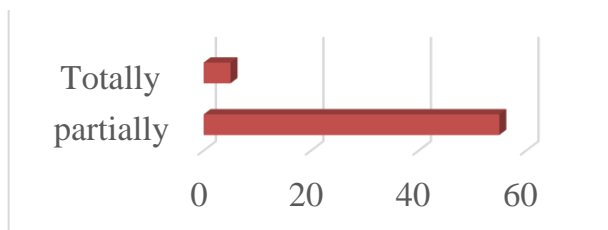
When asked to indicate how much do they rely on their teachers in the classroom, the majority commented that they partially relied on them (55 students) as illustrated in figure 3. This indicates the vast majority of the participants are independent from their teachers in their own learning.

### 3.2.3. Causes for students' learning progress and outcomes

Fig .4. Causes for students' learning progress and outcomes
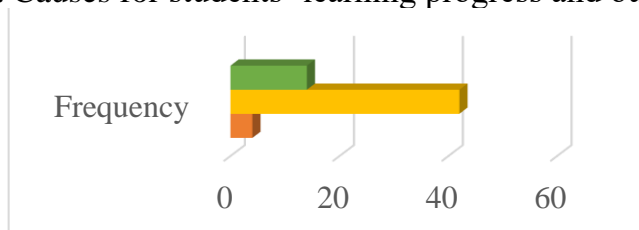
The majority of those who responded to this item felt that it is their responsibility to accomplish good learning outcomes. Additionally, while a minority of participants (four)indicated that their learning progress is the responsibility of their teachers, 14 students commented that it is a shared responsibility between both teachers and students. A possible explanation for this might be that most students are aware of their autonomy in learning, and hence have positive attitudes towards taking their own responsibility and being autonomous in developing their own learning.

3.2.4. Difficulties in maintaining learning autonomy in the classroom

Fig .5. Difficulties in maintaining learning autonomy in the classroom
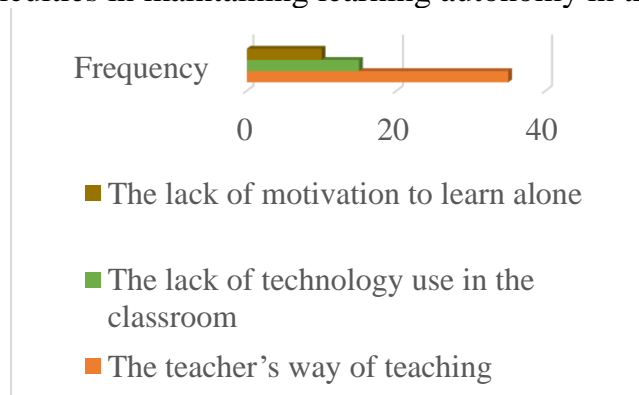
Data summarized in Figure 5 above indicates that the teacher's way of teaching was the major obstacle faced by most respondents (35). The lack of technology use in the classroom and the lack of motivation to learn were referred to by 15 and 10 students respectively. The results illustrate that most students are not satisfied with the teaching methods applied by their teachers in the EFL classroom. Developing their sense of independence requires the

use of a variety of strategies, motivation, and different technological tools. It seems possible that these results are due to the overreliance of those teachers on old teaching methods without trying to implement innovative ways such as ICTs tools to make their students more motivated, interactive, and interested to learn more by themselves.

3.2.5. Strategies to overcome the obstacles that prevent autonomy

For the suggested ways to encourage learning autonomy in the classroom, half of the participants indicated that implementing technology in the classroom would be an effective way. Only four participants mentioned evaluating the learning performance, while 15 and 11 students respectively referred to taking part in developing the topics along with their teacher and working in pairs and within group. It can be, therefore, suggested that since most learners are not satisfied with the teaching methods used by their teachers to foster their autonomy, implementing technology can be a suitable strategy in this case as it provides more opportunities for learners to practise their learning, and hence increase their autonomy.

Fig .6. Ways to overcome the difficulties preventing learning autonomy
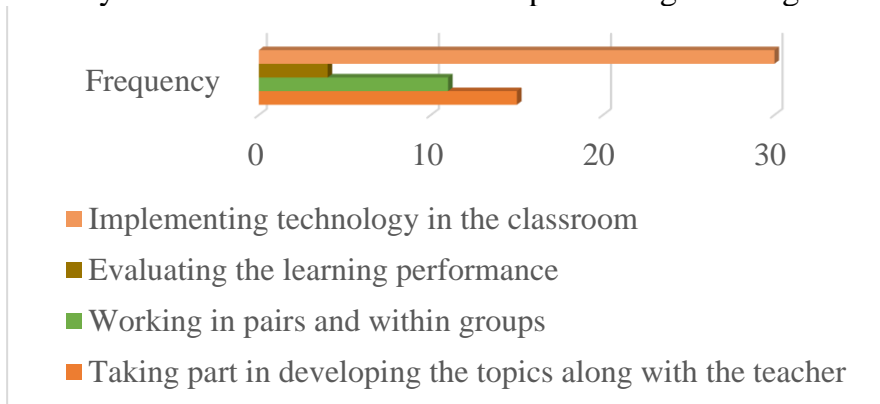
3.3. Students' perceptions of the effectiveness of technology in enhancing their learning autonomy

Table 2. The role of technology in promoting autonomy

Statement	Agree	Strongly agree	Neutral	Disagree	Strongly disagree
I prefer the classroom-based technology instruction to the traditional method	14%	85%	00	01%	00

Integrating technology in EFL classrooms is crucial for the success of the learning process	45.5%	32.5%	00	13%	09%
Technology in class would yield to better understanding of the lesson	26.5%	73.5%	00	00	00
Technology is an effective way of teaching EFL	75%	12%	01%	10%	02%
Technology makes me involved in the learning process	57%	41%	02%	00	00
Technology does not help in the classroom	08%	00	01%	42%	49%
Technology makes me more independent in my own learning	32%	65%	00	01%	02%
Technology makes me less motivated to learn	00	00	02%	08%	90%
Technology makes me responsible of my own learning	50%	50%	00	00	00
Technology makes my learning more flexible	23%	57%	03%	10%	07%
Technology makes me able to self-assess and self-evaluate my progression	56%	25%	01%	10%	08%
Technology makes me aware of the different learning strategies	50%	50%	00	00	00
I really want my teachers to integrate technology in the classroom to develop my autonomy	02%	98%	00	00	00

Data summarized in Table 2 reveal that the overall response to the items of this section was very positive. The majority of the respondents rated all positive items as "agree" and "strongly agree", whereas for the two negatively worded statements (item six and eight), they opted for either disagree or strongly disagree. The majority of students (85 %) and (75%) respectively reported that they prefer the classroom-based technology instruction to the traditional method, and that technology is an effective way of teaching EFL. Moreover, while 57% of those surveyed agreed that technology makes them involved in the learning process, 90% strongly disagreed with the statement that technology makes them less motivated to learn. Almost all participants (98%) said that they strongly agree that they really want their teachers to integrate technology in the classroom to develop their autonomy. For students' perceptions of fostering autonomy via technology, 65% strongly agreed that technology makes them more

independent in their learning, 50% agreed and strongly agreed that it makes them aware of the different learning strategies, 56% agreed that technology makes them able to self-assess and self-evaluate their learning progression.

3.4. Students' perceptions of the barriers of learning autonomy via technology

Table 3. Students' perceptions of the barriers of learning autonomy via technology

Statement	Agree	Strongly agree	Neutral	Disagree	Strongly disagree
Poor internet connectivity prevents from achieving learning autonomy	02%	93%	00	03	02
Some teachers are reluctant to use technology in classroom	56%	39%	00	05%	00
I am not skilful enough in using some technological tools	35%	35%	00	16%	14
I do not know how to access some technological websites provided by my university (Moodle)	03%	97%	01%	00	00
The limited time devoted for class in not enough to implement technology	100%	00	00	00	00
There is sometimes noise when engaged in an online course via zoom which makes me concentrate less	50%	45%	00	05%	00
I do not have a personal computer to make further research related to my studies	18%	00	00	40%	42%

For students' perceptions of the obstacles that prevent from achieving learning autonomy in a classroom-based-technology, 100% of the respondents agreed that the limited time devoted for class in not enough to implement technology and hence to foster their autonomy. 97% and 93% respectively strongly agreed with the statements "I do not know how to access some technological websites provided by my university (Moodle), and "poor internet connectivity prevents from achieving learning autonomy". Other difficulties were related to noise in an online course and teachers' reluctance to integrate technology in the classroom.

4. Qualitative findings of the teachers' interview

The qualitative data of the present study were gathered from the semi-structured interview conducted with six EFL teachers in the respective

department with the aim adding strength to the study. The six interviewees were recorded and their responses were transcribed. Those transcripts were read carefully by the researcher to have a clear idea about the most commonly given answers, then, transcripts, were labelled and coded into different categories based on the aim of the interview. The most important codes which are relevant to the study were brought together to create different themes related to the study. That is, reflections on teachers' perceptions of the role of technology in promoting learning autonomy, and the difficulties with the implementation of technology in the classroom to achieve learning autonomy were based on the frequency of their answers as verbalized in the audio records.

4.1. Teachers' awareness of learning autonomy in the EFL classroom

In their accounts of the importance of autonomous learning in the classroom, all interviewees agreed on its effectiveness in the development of EFL students' learning outcomes. Although the majority of the teachers felt that their students do not have a sense of responsibility towards their own learning and rely only on what they give them in the classroom, they try always to provide them with opportunities to take part in the learning process. Some teachers commented that because the learner should be put at the heart of the teaching and learning process, they encourage them to make extra research about their field of study, they provide them with opportunities to work in small groups to exchange ideas, minimize their roles in the classroom by being a guide and a scaffolder in some situation as highlighted by one interview "*well! as learning autonomy is an important aspect of the learning process, I try always to vary my teaching methods and procedures. For example, I see that in some cases I have to be just a scaffolder as it might help them to be more motivated and less anxious to take part in the learning process*".

4.2. The role of technology in fostering autonomy

The interviewees were first asked about their regular use of technology in their EFL teaching. Only two interviewees said that they sometimes depend on technology in their classes, whiles the remaining four teachers stated that they never use technology for teaching in the classroom. As an illustration, one interview put it "*I never dare to use technology in the classroom because of the many difficulties that I guess I would face mainly internet connectivity and students' noise. So, I go for the old teaching method of using a board and a pen*". A follow up question was that if teachers think that there is a relationship between technology use, learning autonomy, and good learning attainments. All those interviewed recommended using technology to foster autonomous learning and learning achievements. They considered technology as an adequate approach that might help with autonomy in the classroom as it increases their self-independence by having access to a large amount of resources, facilitates communication and collaboration among teachers and students, and hence becoming actively engaged in the process of learning.

Technology can also make learners more self-directed by keeping up with the latest updates on their studies without the need of their teachers, "*ICTs are a good source for learning autonomy. They always provide newness and updates related to different disciplines. So, when students really*

want to enrich their knowledge about their own fields of interest, they can easily by accessing the different resources available on the net" one interviewee highlighted. Another interviewee added "*I am in favour of technology use in the classroom to foster autonomy and make progress in the learning process. Technology contributes to a great extent in fostering autonomous learning as learners are provided with a number of remedial tasks besides those used in the classroom to reinforce their understanding and make up for some missing knowledge in the classroom*". Technology including discussion boards and forums, social networks, and chat programs were also reported by the interviewees to allow students' discussions, exchange of ideas and experiences, provides online lectures and helps with doing term-works activities with much exposure to the target language.

4.3. Teachers' perceptions of the obstacles preventing autonomy via technology

All those interviewed stated that despite the fact that technology has a great impact in enhancing students' autonomy, implementing it in the classroom is a challenge. They referred to the different obstacles that prevent them from using such technological tools in their teaching. Those difficulties were mainly related to the low quality of internet connectivity, time shortage, and lack of their students' discipline. For example, interviewee one reported "*when violating from a normal classroom by integrating technology, I guess I would not be able to effectively manage my time and cover all aspects of the lesson within its allotted time because 90 minutes might not be enough for me*". Another interview mentioned that implementing technology in the classroom is challenging. For her, as she belongs to the old generation instead of the digital one, she lacks the necessary skills to master certain technological tools. She argued "*I am not a digitalized person. Even though I support the use of technology to optimize students' outcomes and autonomy in the EFL classroom, I am sure I will not be successful in implementing it effectively*".

CONCLUSION

The purpose of the current study was to address both EFL Algerian university students' and their teachers' perceptions of the role of digital technology in paving the way to learning autonomy. Participants' overall responses were positive, in which they commented that technology is an effective way to make students more responsible for their own learning by accessing the different resources available in the technological tools. Additionally, although both teachers and students reported some obstacles such as the availability of materials and internet access in implementing technology in the classroom, this did not mean that they did not support its use to promote autonomy. It denotes, however, that further considerations for the implementation of digital technology in the classroom is required for the future.

Bibliography List

-Baru, M., Tenggara, W. N., & Mataram, M. U. (2020). Promoting students' autonomy through online learning media in EFL class. *International Journal of Higher Education*, *9*(4), 320-331.

-Benson, P. (2001). *Teaching and researching autonomy in language learning*. London: Longman.

-Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, *3*, 275-285.doi: 0.1016/j.susoc.2022.05.004

-Holec, H. (1981). *Autonomy and foreign language learning*, Oxford, UK: Pergamon.

-Kassens-Noor, E., Durst, N., Decaminada, T., & Parcell, J. (2023). Experiencing autonomous futures: Engaged learning with next generation technology. *Active Learning in Higher Education*, *24*(1), 21-36. doi:10.1177/146978742098254

-Lai, C. (2019). Learning beliefs and autonomous language learning with technology beyond the classroom. *Language Awareness*, *28*(4), 291-309. doi: 10.1080/09658416.2019.1675679

-Lengkanawati, N. S. (2017). Learner autonomy in the Indonesian EFL settings. *Indonesian Journal of Applied Linguistics*, *6*(2), 222-231. doi: 10.17509/ijal.v6i2.4847

-Lenkaitis, C. A. (2020). Technology as a mediating tool: Videoconferencing, L2 learning, and learner autonomy. *Computer Assisted Language Learning*, *33*(5-6), 483-509. doi: 10.1080/09588221.2019.1572018

-Martha, Y. N., Gustine, G. G., & Muslim, A. B. (2021). Exploring EFL teachers' beliefs on the implementation of learner autonomy in online classrooms: Learner autonomy, teachers' beliefs, online classrooms, technology. *Edulangue*, *4*(1), 90-106. doi: 10.20414/edulangue.v4i1.3454

-Pallant, J. (2016). *SPSS survival manual. A step by step guide to data analysis using IBM SPSS* (6th ed). UK. McGraw-Hill Education.

-Purnawarman, P. (2018). The use of smartphone and learning strategies in autonomous learning. *Indonesian EFL Journal*, 4(1), 43–48. doi: 10.25134/iefli.v4i1.797

-Saeed, M. A. (2021). Learner autonomy: learners' perceptions on strategies to achieve autonomy in an EFL classroom. *International Journal of Linguistics, Literature and Translation*, 4(3), 150-158. doi: 10.32996/ijllt.2021.4.3.17

-Warni, S., Aziz, T. A., & Febriawan, D. (2018). The use of technology in English as a foreign language learning outside the classroom: An insight into learner autonomy. *LLT Journal: A Journal on Language and Language Teaching*, *21*(2), 148-156. doi: 10.24071/llt.2018.210203