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THE ADOPTION OF DIGITAL INTERACTIVITY AS A MEDIATOR IN TEACHING AND LEARNING FOREIGN LANGUAGES IN HIGHER MOROCCAN EDUCATION

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Abstract: *The Moroccan higher educational system is reconfigured through the promotion of e-learning environment. The present study aims at demonstrating the contribution of the implementation of digital interactivity in enhancing the quality of teaching foreign languages. It also shows how foreign language classes are using technology tools to meet students' needs. This exploratory study uses a quantitative approach, with 100 participants from different Moroccan institutions. The study accepted the hypothesis that the use of digital interactivity positively impacts learners' foreign language acquisition. The results show that students need to master the interaction with digital devices. This study values digital literacy in a way it develops teaching methodologies and students' personalities.*

Keywords: digital interactivity, foreign languages, technology tools, digital literacy, students' personalities

INTRODUCTION

The great thing that happens today is the invention of computers, mobiles and other technologies that have facilitated the teaching process and the students' studies. Many Moroccan schools and universities are equipped with different technological devices to meet students' needs. Both learners and teachers take benefit from these tools to integrate in their ways of working in order to improve their productivity.

The teaching of foreign languages, to this generation of learners, creates innovative and adaptable teaching strategies, which can stimulate the construction and exchange of knowledge within and beyond the classroom environment. The learning process should therefore be learner directed, collaborative and negotiated through different social interactions either in a traditional classroom

or in a virtual space (Crawford, 1996; Driscoll, 1994 as cited in Campbell, 2003). Besides, students shape the educators' methods of teaching towards using more technology. Digital interactivity has mediated the teaching and learning processes, and has also improved students' levels of studies by shaping their ways of working to make connection with people (Dillon, 2004; Longhurst & Sandage, 2004; Piccoll *et al*, 2001; Williams, 2008).

Digital interactivity has "provided both teachers and learners with an alternative avenue to construct and reconstruct knowledge" (Yang, 2009, as cited in Goodfellow, 2011, p. 12).By means of illustration, virtual interaction boosts students' language knowledge, and enhances many language skills that students unconsciously acquire. This modern way of learning has also introduced learners to new literacies such as digital, media and cooperative literacy (Martin & Madigan, 2006).Besides, the current generation of students is more technologically conscious and brings to the educational institutions "a wide range of life experiences and interests" (Lillis, 2003, p. 192).

Students spend hours interfacing electronic devices in class. Some of the "technology-based" language activities involve memorization, motivation and critical thinking. They are beneficial from two sides: language acquisition and cognitive skills development. The increasing presence of communication technologies, such as blogs, discussion lists, video conferencing, and social media, are highly embraced by students. These new technologies inspire teachers to use innovative and adaptable teaching methods that are more stimulating and appealing to learners. For example, the use of the interactive white board facilitates both the learning and teaching processes. Also, PowerPoint presentations can enhance the effectiveness of teaching and the assimilation of courses. Teachers find that the communicative approach to teaching foreign languages is compatible to fuse with technology communications to create an enjoyable and motivational atmosphere in the learning environment. This implies that "learning is not just about knowledge, but also about motivation, engagement and social interactions" (Dettori, Gianneti, Paiva & Vaz, 2006, p.5).

This study is an attempt to explore the presence of using digital interactivity in language courses in higher education, and to test its impact on boosting students' interests towards the learning of foreign languages. The adoption of this modern way of teaching may lead to better learning outcomes, and to the development of the Moroccan educational system by promoting digital literacy in higher education and helping students develop necessary skills to integrate the job market. The objective of this study is to examine students' perceptions of the contribution and use of digital interactivity in the learning of foreign languages. This research sets some experimental questions to be answered by Moroccan university students. The following research questions will be addressed:

1. How far is digital interactivity beneficial for students in enhancing their foreign language acquisition?

2. To what extent do modern technology tools contribute to the success of the learning process?

This exploratory study raises a hypothesis to be tested, to see if it will be accepted or rejected from the participants' perceptions of the major variables that are digital interactivity and foreign languages learning:

H_1: The use of digital interactivity improves students' learning of foreign languages.

The test of the hypothesis will lead to a clear answer to the research questions and to show the impact of digital interactivity on the language teaching field that might be improved.

1. METHODS

As a teacher researcher, I have a strong feeling that digital interactivity plays a crucial role in teaching foreign languages courses that have the potential to cause very important changes in students' studies and even lives. I am trying to discover that not only the university students, but also the teachers can find the adoption and use of digital interactivity helpful in the educational field.

In this research methodology, a quantitative approach has been applied in which a questionnaire is set to answer some pertinent questions of university students' perspectives towards the subject.

1.1 Research materials and procedures

The e-questionnaire was forwarded to students to get their feedbacks on the treated subject and have their answers of a set of questions that would help in analysing the research questions and testing the hypothesis.

The questionnaire needed to be short and unambiguous. The questions were divided into two sections: personal information and practical questions. The electronic administration of the online questionnaire played an important role in collecting the data as much as students can get via e-mails or social networks of "Google form" link.

While designing questions, there were different ways in setting the questions to give more visibility and clarity to the respondents. As the use of Yes-No questions, that is called dichotomous scale. Also, the use of the Rating Scales of five points which provides to the respondents more than one answer option. Besides, the use of the Likert scale which pinpoints students' positions and points of view that might be even neutral. This scale was presented in the questionnaire in two types: strongly agree, agree, neutral, disagree, strongly disagree. And, it was also used in the questions with the choices of: always, often, sometimes, rarely, never.

1.2 Validity and Reliability

This study attempts to ensure the validity of the instruments and the results through these steps. The instrument was designed on the basis of the theoretical framework adopted in this study and similar measures used in previous research. Efforts were also made to align the instructions and objectives of the questionnaire. Finally, the study included a sample of population which may guarantee the generalization of the findings to a similar population.

1.3 Research Design

This study targets Moroccan higher educational institutions. The research environment deals with various public higher schools and faculties in different fields of studies that teach foreign languages, to have more diversity in points of view and perspectives. A sample of Moroccan university students represents the research population since it is a large group. A questionnaire was designed not only to collect data but also to generalize the findings to the population from which the sample is selected. The number of students' participants is 100. The research participants are 53% of males and 47% of females. They were boys and girls ranging in age from 18 to 25 years old.

1.4 Statistical Measurements Procedures

The online questionnaire has facilitated its administration to a large group of participants and in different Moroccan cities. It has also facilitated the phase of the data collections from the "Google drive". Findings were inserted first into the Microsoft Excel for univariate tests of the questions and setting diagrams, and then they were treated and analysed in the SPSS program. I started with a descriptive analysis to KMO & Bartlett's test, to test the significance of all variables. There were 12 questions; the test rejected three questions that will negatively affect the research results. Then a correlation test was applied on the variables to see if there is a presence of a linear relationship between them. After that a regression analysis was set to see the impact of the independent variable of digital interactivity use on the dependent one of foreign language acquisition.

2. RESULTS

This study explores various aspects of using digital interactivity in supporting students' language studies, in different Moroccan educational institutions, from students' perspectives. It also seeks to demonstrate the impact of using digital devices on learners' foreign languages acquisition.

The Number of the research participants is 100, in which there are 53% of males and 47% of females. There is the participation of different levels of respondents' studies: 39% of bachelor students, 34% of masters, 11% of 2nd year and 16% of 1st year students. Moreover, there are participants from many fields of studies;

as the high rate of participation which is from the students studying Arts/Literature47%, and Economics/Management32% as shown in (figure1).

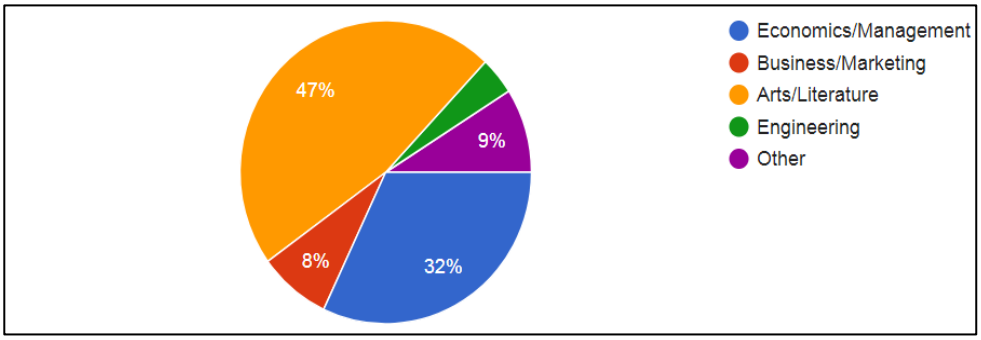


Figure 1. Field of Study
Source: Own work

Almost all respondents positively answer that electronic devices facilitate their foreign language acquisition and help them improve their educational level in higher studies (Figure2).

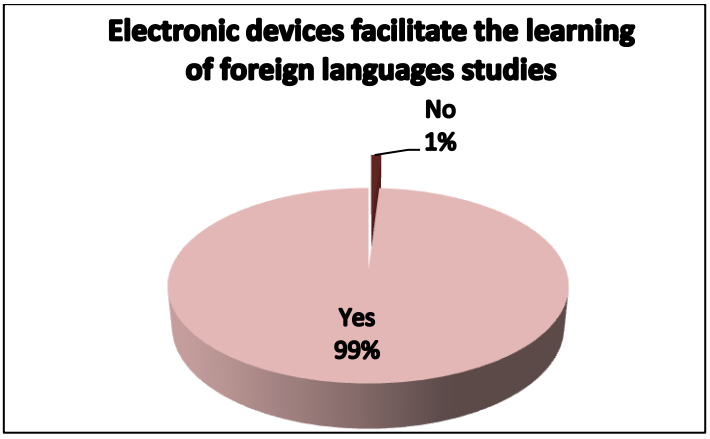


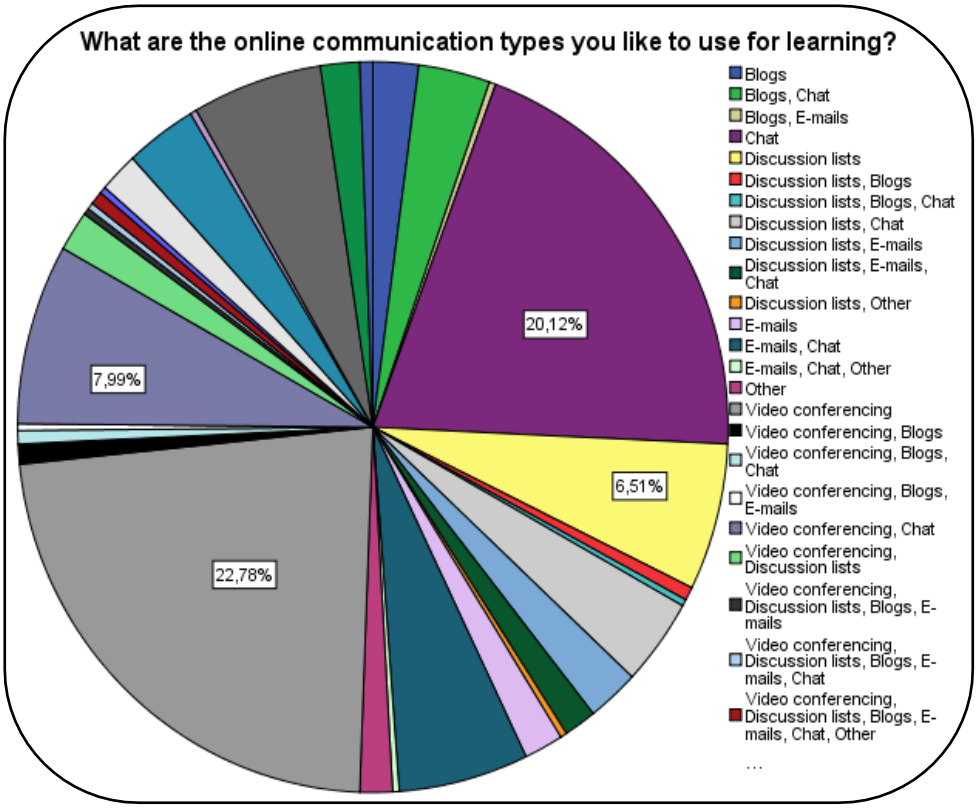
Figure 2. Electronic Devices and Language Acquisition
Source: Own work

According to the results, the preference of students' online communication is mainly interacting via chatting in social networks 66%, they also express their interest towards video conferencing 64% in which they can communicate face-to-face, and also they like commenting in discussion lists 43%. (Figure3).

According to the results, students find the language courses that use technology devices interesting 82%, motivating 66%, and no one finds it boring or unclear. Moreover, participants rank the teaching quality of language studies using technology as good 58%, developed 39%, 29% respondents think it also needs some improvement but no one finds it outdated, as shown in Figure 4. In addition

to that respondents confirm that e-learning has an important place in complementing their language learning, and 75% link the course success to the adoption of e-devices as it facilitates the assimilation of language learning courses.

Figure 3. Online Communication



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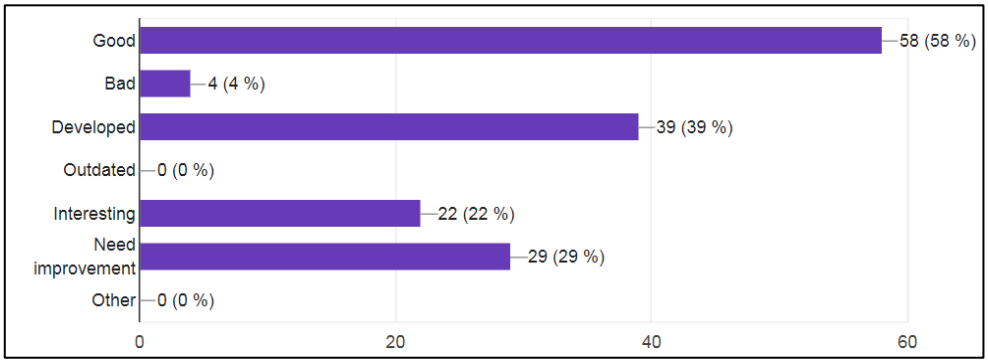

Figure 4. Teaching with Technology Use

Source: Own work

However, using technology devices in classrooms put the frequency of students' communication under a threat. Since, some participants 14% declare that they do not frequently communicate in the language course that uses technology tools and some of them 11% are never engaged in "technology-based" communication activities. But more than 50% of the participants confirm that they do communicate in class with the use of digital devices (Figure5).

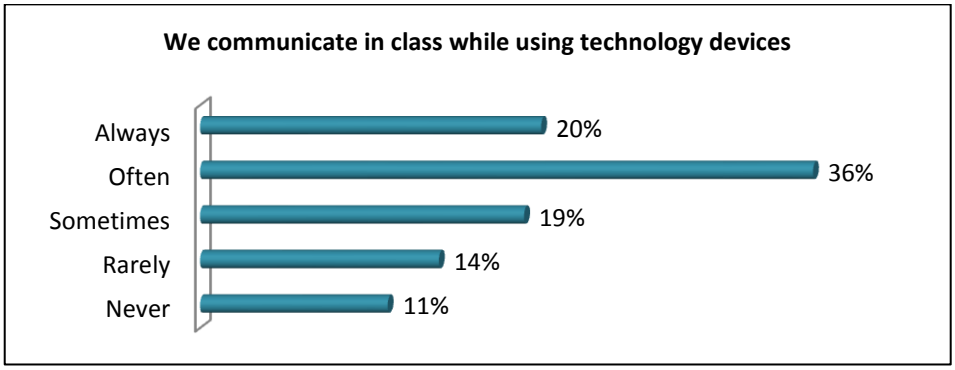

Figure 5. Communication and Technology
Source: Own work

Some of the respondents (60%) state that they were not offered programs to boost their computer skills, and they lack the necessary skills to cope with the language courses' challenges that use technology. Most respondents (95%) are asked to prepare and present projects and works that need a certain mastery of technology devices use. But 30% of the respondents find that the "technology-based" activities are frustrating (Figure 6).

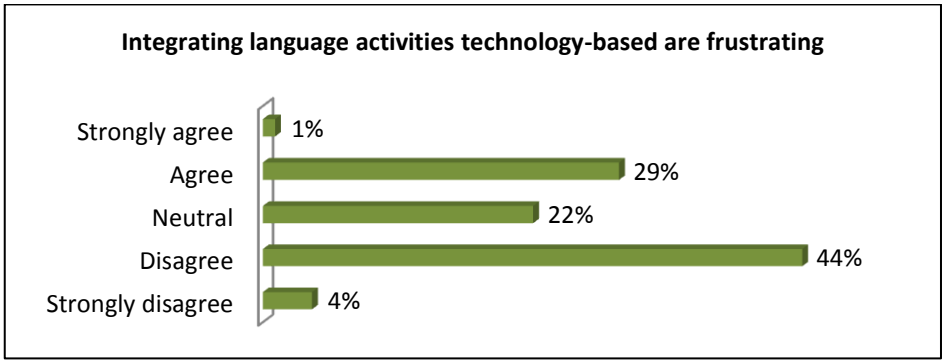

Figure 6. The Fear of Using Digital Devices
Source: Own work

As we can see 52% are for adopting digital interactivity within the communication course, and 20% of the students strongly agree on this point. The rest (17%) assure that they are neither for nor against, maybe because they fear technology. (Figure7)

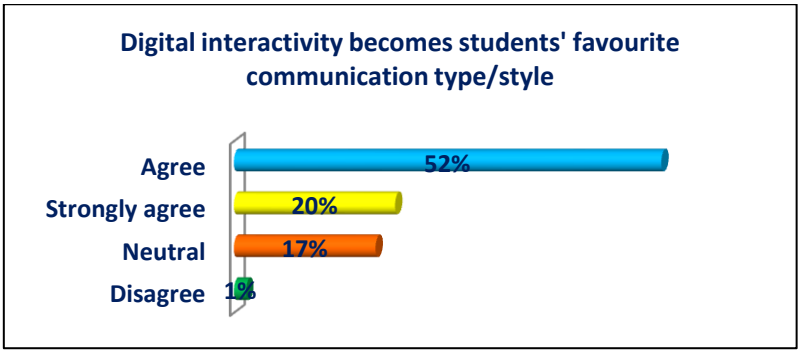

Figure 7. Digital Interactivity
Source: Own work

The variables were statistically significant through KMO & Bartlett's Test. Chi-Square statistic is required to tell us how likely the chosen elements are compatible. And the significance is 0.000 means the questions are valid (Table1).

Table 1.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,492
Bartlett's Test of Sphericity	Approx. Chi-Square	330,195
	Df	78
	Sig.	,000

Source: Own work

The relationship between the two major variables digital interactivity and language acquisition is significant. The correlation is statistically significant 0.000 in all columns. The Pearson correlation value is 0.385 which is a significant value that varies between -1 and +1. This also means that there is a linear relationship between the variables (Table 2).

Table 2.

Correlations

		[The use of Digital Interactivity]	[Foreign language skills development]
[The use of Digital Interactivity]	Pearson Correlation	1	,385**
	Sig. (2-tailed)		,000
	N	100	100
	Pearson Correlation	,385**	1

[Foreign language skills development]	Sig. (2-tailed)	,000	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Own work

A regression test was proposed to identify how foreign languages' acquisition is impacted by the use of digital interactivity, the ANOVA test is significant, it is inferior to≤ 0.05 (Table 3), which implies that there is a positive relationship between the two main variables and the impact of digital interactivity on the language development exists.

Table 3.

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7,122	1	7,122	17,007	,000[b]
	Residual	41,038	98	,419		
	Total	48,160	99			

a. Dependent Variable: [Foreign language skills development.]

b. Predictors: (Constant), [The use of Digital Interactivity.]

Source: Own work

The regression equation is valid. The predictor variable which is the use of digital interactivity positively impacts of 14.8% the development of foreign language skills.

Table 4.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,385[a]	,148	,139	,647

a. Predictors: (Constant), [The use of Digital Interactivity]

Source: Own work

3. DISCUSSION

This study is an attempt to explore the presence and impact of integrating digital interactivity in learning foreign languages. Students are eager to learn foreign languages courses in a developed way that is full of motivation, interest and happiness in the classroom environment. Digital interactivity is a modern trend of learning and increasing the attention of students towards many language features. According to research findings, students enjoy the use of technology tools inside and outside the class, and as Junghun & Leem (2011) who presented the key features of mobile learning that facilitates the mobility of learning space, flexible access to resources, and the simplicity of study details and interactivity.

Learners then are more attracted towards the course when teachers use electronic devices to help them understand, and give some visual support to what they present and explain. Educators invest in such developed techniques to increase students' learning productivity. Moreover, they take benefit of digital interactions to target students' language acquisition and their personal skills' development as becoming active, update and engaged in the learning process.

This paper proposes a hypothesis that was accepted in data analysis, and which confirms that the use of digital interactivity in the learning process impacts students' foreign language acquisition in a low percentage of 14%.This means that digital interactivity is one of the factors that positively impacts the teaching of foreign languages, and which can be adopted to teaching methodologies. The research results reveal how important the digital interactivity is in students' lives. Thanks to the adoption of this modern method "Digital Interactivity", both students and teachers contribute to the success of the educational process. Hence, learners become interested and motivated to learn foreign languages in a safe e-environment and create a blended learning style that favours the use of digital devices support.

Digital interactivity is a modern model of teaching that has provided educators with the opportunity to blend different strategies in the same learning space. Teachers use a communicative approach to teaching foreign languages and meet students' expectations of developing communication skills using technology. For instance, the use of computers in writing e-mails connects students with teachers in sending work and receiving assignments especially if students are living far from the school in rural areas. In this regard, both Valk and Elder (2010, as cited in Boyinbode & Fasunon, 2015) showed that those students have an easy access to educational materials and information thanks to mobile devices and their services; and which boosts learners' writing skills that some students fear. Besides, students' responses show their interest in using video conferencing to shorten the distance and feel the eye contact, which enhances their observing, listening and speaking skills. In virtual interactions both students and educators promote "greater cognitive flexibility" (Wolfe, 2001, p. 6).

In this study some students express their interest in the use of discussion lists to interact, share opinions and improve their sense of analysis. For some social

learning theorists there are mental technology-based activities that enhance the cognitive development of learners. Moreover, students bring to the class new experiences, views and life interest. They contribute to the omission of traditional approaches of teaching, and leave the ground for more constructivist learning environment (Shana, 2009, p. 215). The increasing presence of "web technologies" such as "Blogs, Facebook, Skype… WhatsApp" has triggered teachers to be more open to make use of and adopt a digital interactivity approach to teaching, to motivate students to interact in a less embarrassing and socially oriented atmosphere. Thus, digital technologies favour the sharing of knowledge in the learning environment; by providing numerous opportunities for "exchanging knowledge" (Lea & Street, 1998, p. 157).

However, there is a considerable percentage of students (30%) who are frustrated with technology-based activities. They start to lose interest and attention while using technology devices in classrooms, especially when they feel that they are overtaken. That is to say, they develop certain incapacity to cope with the courses' challenges, since they do not master the required skills to deal with digital devices within or beyond the class. They also expect the teachers to supervise them while using these kinds of activities. For example, students' knowledge of using the interactive whiteboard is limited, to the ones who had an experience in special training. Sometimes, teachers take it for granted that all students know how to handle such e-devices and to further levels.

In addition, students are faced with some challenging projects and presentations in language classes that need a mastery of certain techniques and programs of digital presentation technologies, such as "PowerPoint and Prezi" that most of them just e-learn, 27% of the participants in this study assure that they have never benefited from a program, workshop that could enlighten their interaction with digital devices. Hence, this may have the opposite effect to students' learning outcomes. So, they become passive in group discussions, do not take part in interactive activities and then lose interest in the course itself and maybe in other courses. This does not support the idea off favouring depersonalization of learning that encourages the shy students to participate in classroom discussions (Maier & Warren, 2000; Martin & Madigan, 2006).

Many researchers have recently affirmed that students' engagement with language learning tasks using technology highly correlate with the success of the learning process. Digital interactivity has begun to characterize the work of some teachers but others still avoid this kind of methodology, maybe because of students' frustrations towards technology, the lack of computer literacy support programs or because the classrooms are still not well equipped. There are inherent problems that need to be addressed, like the lack of communication in the language classroom while using technology devices and the students' need to overcome the educational obstacle of digital literacy. Finally, there are other factors that impact language learning to be considered that might be raised in further

studies, with a larger sample in terms of population and institutions for more in-depth exploration and more consistent results.

CONCLUSION

Teaching in higher education is always under frequent changes to meet the globalized world's challenges, and respond to every generation's expectations. This paper presents a new trend to teaching foreign languages to Moroccan university students. Digital interactivity is adopted by teachers to create innovative teaching methodologies for better learning outcomes. This study finds out a significant correlation between foreign languages' acquisition and the use of digital devices. Students are conscious of the importance of integrating such technology in their higher studies, and expect teachers to satisfy their interests. Language technology-based activities stimulate students' reflective thinking skills, and enhance their personal skills as becoming active and sociable in the daily interactions. The work revealed an absence of digital literacy programmes for university students, which forms an obstacle in developing their language and communication skills. This research is a contribution to the teaching field to harness the benefits of integrating digital interactivity in education.

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