Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 10, No. 1, 881-889
2026
Publisher: Learning Gate
DOI: 10.55214/2576-8484.v10i1.11768
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Cultivating oral proficiency: Harnessing digital technologies to enhance 2nd year students' speaking skills

Nuha Abdelmjeed Taha Abdulmjeed[1*], Eshraga Mohammed Abdalla Osman[2], Ezzelden Ibrahim Mohammed Ibrahim[3]
[1,2]King Khalid University, Saudi Arabia; nuha@kku.edu.sa (N.A.T.A.) emabdullah@kku.edu.sa (E.M.A.O.)
[3]Nile Valley University, Egypt; ezzeldenphd@yahoo.com (E.I.).

Abstract: This study aims to investigate the effectiveness of digital technologies on the development of students' speaking skills among the 2nd-year English language learners at the Sudan University of Science and Technology. A descriptive analytical method was applied through the use of a questionnaire, which offers first-hand data that is easily quantifiable. The responses obtained from participants can be simply transformed into a numeric form suitable for quantitative analysis of data. A questionnaire was designed and distributed to 100 male and female participants who were purposefully selected, while 90 questionnaires were collected from 100 participants. The SPSS version 20 program was used to analyze the obtained data. The study findings revealed the following: digital technologies are helpful pedagogical tools that significantly influence students' speaking skills. Additionally, digital technologies are very effective in helping students increase their speaking skills and reduce students' anxiety. Furthermore, digital technologies played a vital role in developing students' speaking skills and offer many benefits to students of the University of Science and Technology.

Keywords: *Cultivating oral proficiency, Digital technologies, Enhancing, Speaking skills.*

1. Introduction

Digital technologies in the English language at different levels are regarded as a priority task in the process of implementing technology in developing students' speaking skills. Digital technologies assist in resolving problems and creating conditions for the construction of a digital education environment, aimed at the application of modern digital education tools in the development of students' speaking skills. It is also of great significance in improving and enhancing the students' learning process. The significance of a digital educational environment should ensure the country's transition to a digital economy. Making educational transformations includes modernization of the education system, bringing learning programs in line with the needs of the digital economy, widespread introduction of various digital tools in educational activities, as well as online learning development. Therefore, recent years have been marked by increased attention from educators and teachers to issues related to the introduction and development of digital classroom technologies. According to Williamson et al. [1], digitalization has become a main concern for all educators, education businesses, teachers, parents, and students alike. Therefore, education has become an urgent matter, and along with it, educational technologies have been positioned as a frontline service. Syafryadin and Salniwati [2] stated that digital technologies provide attractive models that increase learners' motivation in learning English. Digitalization is one of the most effective alternative methods for enhancing English learning and makes it more engaging. Kallinikou and Nicolaidou [3] added that digital technologies offer students opportunities to improve their knowledge, skills, and educational standards. Moreover, Vasilieva [4] said that a substantial and unique feature of innovative technologies is their interactivity, which involves the active participation of students in the learning process. This shift moves away from traditional,

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History: Received: 22 October 2025; Revised: 30 December 2025; Accepted: 5 January 2026; Published: 16 January 2026
* Correspondence: nuha@kku.edu.sa

informative forms of learning toward active learning, where the focus is on the transformation of knowledge into the active production of independent ideas and collaboration among students. Furthermore, according to Norton et al. [5], digital transformation encompasses more than just the application of technological solutions; it involves an alteration in the organization of work driven by evolving digital technologies and innovative business models. It includes an integration of digital technologies with human and organizational factors, creating a comprehensive approach to change. According to Mahlow and Hediger [6], digital transformation develops new skills and models through digital technologies in a deep and strategic way. Finally, digitalization in foreign languages makes learning and teaching possible not only in the classroom environment but also anywhere and anytime with the internet and other technological developments. It provides both teachers and learners with new opportunities and roles to take advantage of the digital transformation of unlimited and multiple materials. Therefore, preparing and integrating digital technologies in foreign language teaching will also make important contributions to benefits and achieving results.

1.1. Problem Statement

Nowadays, digital technologies cover all spheres of our lives. Intensive exposure to digital environments requires new positions in many areas of education and training. Digital technologies have now become a necessity for every educator and learner in moving towards progress in learning and teaching. Also, through lifelong learning, digital technologies become obligatory in educational institutions to enable the participation of everyone at any time and from anywhere. Digital technologies in foreign language teaching make learning and teaching possible in the classroom environment, anywhere and anytime. They give teachers and learners new opportunities and roles to take advantage of the digital transformation of unlimited and multiple materials. Therefore, this study attempts to investigate the impact of digital technologies on developing Sudan University of Science and Technology students' speaking skills. It also aims to identify the benefits of implementing these technologies in speaking skills.

1.2. Research Aim & Objectives

The current study aims to investigate the impact of digital technologies on developing students' speaking skills among students at the Sudan University of Science and Technology during the war period in the Republic of Sudan, when there were no official classes and universities were closed due to the war.

1.3. This Aim Can Be Achieved Through the Following Objectives:

1. To identify how digital technologies affect students' speaking skills.
2. To identify the benefits of integrating digital technologies into students' speaking skills.
3. Find out the relationship between using digital technologies and the development of students' speaking skills.

1.4. Research Questions

1. How does the application of digital technologies affect students' speaking skills?
2. What are the benefits of integrating digital technologies into students' speaking skills?

1.5. Research Hypothesis

There is a significant association between using digital technologies and the development of students' speaking skills.

1.6. Significance of the Study

1. Digital technologies have become the main driver in many fields, including the English language, where technology applications are used to develop speaking skills.

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2. The progress in digital transformation positively affects language learning.
3. Digital technologies are among the most important new trends that have emerged to address the problems related to students' speaking skills.
4. This study may open new horizons in research in the field of EFT for other researchers in digital transformation.

2. Background of the Study

2.1. Speaking Skills

Badawi et al. [7] defined speaking as the ability to improve oral skills and mastery, including the ability to negotiate and manage dialogues. Somdee and Suppasetseree [8] noted that speaking is an important skill for learning a foreign language; this is due to its opportunities to practice English for further improvement. Students' speaking skills are an indicator of their command of the language; however, developing this skill is very challenging because of limited exposure to the language and the difficulty of being fluent spontaneously with grammatical accuracy. Such competence is acquired over time through extensive exposure and immersion in the new foreign language [9]. Having pointed out the importance of speaking skills as the most effective means to increase learners' fluency in the language, it is important to develop speaking strategies because they motivate learners to participate actively in the classroom. Digital technologies could serve as one such strategy. By utilizing digital technologies, learners can develop all four categories of speaking skills. Burns [10] identified four classifications of speaking skills: correct pronunciation, the role of interaction, including role distribution and dialogue organization, as well as the use of linguistic and non-linguistic features. Technological tools assist in organizing speech by clarifying its objectives and ensuring the unity of its various parts. Therefore, teachers should ensure that learners are engaged in meaningful speaking activities to enhance their speaking skills. Teachers should respond to learners' interests and tailor speaking activities accordingly. This approach increases learners' motivation to participate in speaking activities. When teachers do not respond to learners' interests, students may become less attentive to the activity or to participating in the interaction.

2.2. Benefits of Digital Technologies in English Classes

According to Butenko [11], there are many benefits of using ICT in English classes, such as:

1. It provides communication and student interaction.
2. It promotes understanding of cross-cultural issues in various fields and professions.
3. It offers professional insight and enhances student learning productivity.
4. It utilizes authentic materials in specific disciplines and professions.
5. It creates an authentic audience comprised of external experts in specialized areas.
6. It develops students' cognitive abilities and critical thinking skills.
7. It provides collaborative learning.
8. It focuses on learners and considers their particular needs.
9. It meets the emotional needs of students and increases their motivation to learn a foreign language.
10. It promotes students' autonomy and individualization of learning.

2.3. The Effects of Digital Technologies on Speaking Skills

Based on the English curricula in most Arabic school systems, as in our case in Sudan, very little attention is devoted to developing the speaking skills of EFL learners. Consequently, there is a limited opportunity for EFL learners to participate in building their speaking skills. Furthermore, numerous studies have found that there are positive effects of using digital technologies in speaking classes in enhancing EFL learners' speaking skills. Rubini et al. [12] stated that digital technologies can improve students' speaking skills during English classes. Furthermore, Rubini et al. [12] added that digital

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technologies include many aspects and characteristics, which significantly enhance learners' speaking skills, along with many other elements that encourage learners to speak more effectively.

Ghenghesh [13] stated that the application of digital technologies in EFL classes enhances students' motivation toward language learning. Consequently, digital technologies encourage students to utilize higher-order thinking skills when learning a foreign language and facilitate the effective use of technology to tell their own stories. This development helps improve their speaking abilities, enabling them to share these stories with their colleagues and become more engaged in their class's speaking activities.

2.4. Role of Teachers in Digital Transformation in Foreign Language Teaching and Learning

Technology is a significant part of students' foreign language learning process. In the digital transformation process, it is the role of teachers to model the use of technology that supports the curriculum so that students get an adequate opportunity to improve their language learning skills [14]. The role of teachers is to facilitate the creation of better learning environments in classrooms and on various online platforms. Teachers must also ensure the utilization of available digital media tools to help enhance their students' learning abilities [15]. With their knowledge and expertise, teachers have to adopt the global educational platform effectively to provide students with regular updates on practical technological resources that support the students' learning process. Besides, teachers must work together with students to help them master new learning opportunities that will improve their language learning process. Furthermore, it is the role of teachers to find effective methods for applying technology in the curriculum as an essential educational instrument for students [16].

2.5. Role of Students in Digital Transformation in Foreign Language Teaching and Learning

For a successful digital transformation of foreign language learning and teaching, students must be receptive to the technological resources provided to aid their language learning process. Without students' cooperation in the learning transition process, it may be difficult for educators to succeed in the digital transformation process [17]. For instance, the digital transition process involves the integration of various technological resources into the curriculum. To validate the efficiency of these resources, students must express the diverse educational needs to be addressed through the use of technology. By working together with their teachers, it becomes easier for educators to create an interactive environment that encourages their language learning process [18].

2.6. Methodology and Procedures

To achieve the underlined research objectives, the descriptive method was conducted [19]. Therefore, data needed to be collected using a questionnaire method. The questionnaire was used because it offers firsthand data that is easily quantifiable. The responses obtained from participants can be simply transformed into numeric form suitable for quantitative data analysis [20]. The obtained data were entered and analyzed using the Statistical Package for Social Sciences (SPSS) version 20. Descriptive statistics techniques such as frequencies, percentages, mean values, and standard deviations were used to analyze and interpret the sample perceptions and demographic characteristics. Additionally, the reliability and validity of the questionnaire were examined using Cronbach's Alpha coefficient. Moreover, analysis of variance techniques such as the T-Test were employed to determine if there are significant differences among learners regarding the benefits of digital technologies in developing students' speaking skills based on gender and age.

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2.7. Pearson Correlation

Table 1.
Explains the Pearson correlation.

		Total scores for integrating digital technologies in speaking skills	Total Scores and Benefits of Using Digital Technologies in Learning English Speaking Skills
Total scores integrating digital technologies in speaking skills	Pearson Correlation	1	0.745**
	Sig. (2-tailed)		0.000
	N	90	90
Total scores the benefits of using digital technologies in learning English speaking skills	Pearson Correlation	0.745**	1
	Sig. (2-tailed)	0.000	
	N	90	90

Note: **. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

3. Findings and Results

3.1. Research Hypothesis

There is a significant association between using digital technologies as a learning tool integrated into students' classes and the development of students' speaking skills.

Table 2.
Explains Pearson's Correlation coefficient.

Variables	Using digital technologies as a learning tool integrated in a speaking class	
	Person's correlation	P-value
The benefits of using digital technologies in the development of students' speaking skills	0.745**	0.00

Note: ** indicates that correlation is significant at the (0.01) level.

The results in Table 2 showed the value of the correlation coefficient between two variables using digital technology as a learning tool, and the benefits of using digital technologies in developing learners' speaking skills. The correlation coefficient reached 0.745 at a significance level of 0.01, which is less than the 0.01 significance threshold. This indicates a statistically significant association between using digital technologies as a learning tool and their integration into speaking classes. Therefore, the benefits obtained by students of Sudan University of Science and Technology contributed to the development of their English language speaking skills due to these benefits.

To answer the following research question, what are the benefits of integrating digital technologies into students' speaking skills?

The frequencies, percentages, and means (M) were expressed in the table below.

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Table 3.
Explains the benefits of integrating digital technologies into students' speaking skills (n=100).

			Agree	Strongly agree	Uncertain	Disagree	Strongly disagree	M
1	Digital technologies encourage me to speak without hesitation.	F	32	40	7	4	7	4.02
		%	35.6	44.4	7.8	4.4	7.8	
2	Digital technologies help me practice speaking with natives.	F	48	26	9	7	0	4.87
		%	53.3	28.9	10.0	7.8	0.0	
3	Digital technologies assist me in classifying new vocabulary	F	37	38	4	5	6	4.06
		%	41.1	42.2	4.4	5.6	6.7	
4	Digital technologies assist me in practicing English with my peers.	F	41	34	2	10	3	4.11
		%	45.6	37.8	2.2	11.1	3.3	
5	Digital technologies help me to express my feelings in English fluently.	F	48	26	9	7	0	4.87
		%	53.3	28.9	10.0	7.8	0.0	
6	Digital technologies have developed my English vocabulary level.	F	48	27	3	7	5	4.18
		%	53.3	30.0	3.3	7.8	5.6	
7	Digital technologies provide me with the opportunity to communicate at my own pace and in my own space.	F	47	28	2	6	7	4.13
		%	52.2	31.1	2.2	6.7	7.8	
8	Digital technologies help me to overcome my speaking anxiety.	F	42	32	7	6	3	4.16
		%	46.7	35.6	7.8	6.7	3.3	
9	Digital technologies have developed my pronunciation	F	38	36	5	9	2	4.10
		%	42.2	40.0	5.6	10.0	2.2	
10	Digital technologies expose me to authentic material for speaking.	F	25	58	14	1	2	4.2
		%	28.0	53.4	15.6	1.1	2.2	

The results in Table 3 illustrate the sample responses of the study regarding students' perceptions of the benefits of using digital technologies in learning English language speaking skills. It has been observed that the overall mean value was 3.32. This result indicates that the majority of the students in the sample tend to have positive attitudes towards digital technologies, recognizing significant benefits in implementing digital technologies in their speaking activities.

To provide an answer to the following research question, how does the application of digital technologies affect students' speaking skills expressed in frequencies, percentages, and means (M)?

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Table 4.
Explains how the application of digital technologies affects students' speaking skills (n=90).

			Agree	Strongly agree	Uncertain	Disagree	Strongly disagree	M
1	Digital technologies motivate me to speak freely	F	42	32	7	6	3	4.16
		%	46.7	35.6	7.8	6.7	3.3	
2	Digital technologies provide me with more opportunities to act as an inventor and manipulator in speaking.	F	38	36	5	9	2	4.10
		%	42.2	40.0	5.6	10.0	2.2	
3	Digital technologies assist me in engaging with topics for speaking.	F	42	31	8	9	0	4.18
		%	46.7	34.4	8.9	10.0	0.0	
4	Digital technologies help me to understand L2 culture	F	47	27	4	5	7	4.13
		%	52.2	30.0	4.4	5.6	7.8	
5	Digital technologies help in building rapport between my fellow and me.	F	55	32	1	1	1	4.54
		%	61.1	35.6	1.1	1.1	1.1	
6	Digital technology distracts me and reduces my speaking time.	F	48	26	10	6	0	4.29
		%	53.3	28.9	11.1	6.7	0.0	
7	Digital technologies enable me to use them in real-life situations.	F	23	50	14	2	1	4.2
		%	25.6	55.6	15.6	2.2	1.1	
8	Digital technologies increase my lexical resources and grammatical range.	F	40	36	8	1	5	4.17
		%	44.4	40.0	8.9	1.1	5.6	
9	Digital technologies help in establishing a strong relationship between my colleagues and me.	F	89	0	1	0	0	4.98
		%	98.9	0.0	1.1	0.0	0.0	
10	Digital technologies extend the opportunities for practicing speaking skills outside the classroom.	F	21	47	16	5	1	3.91
		%	23.3	52.2	17.8	5.6	1.1	
	Overall mean							225

From the results in Table 4, we noticed that the overall mean value of the participants' attitudes regarding how digital technologies as a learning tool integrated into class help in improving students' speaking skills reached 4.25, which indicates that the majority of the students sampled in the study strongly agree that digital technologies can be used as a learning tool integrated into English speaking classes and significantly help in developing students' speaking skills.

4. Conclusion

Finally, this research paper provides valuable insights into the use of digital technologies in developing speaking skills. The topic is vast and requires keeping the door open for further research. Consequently, this research aims to pave the way for future investigations. Furthermore, the results of the study revealed that digital technologies serve as an effective platform for learning speaking skills based on data analysis. The study concluded with the following outcomes:

The study proved to have a statistically significant association between using digital technologies as a learning tool for the speaking class and the benefits obtained by students in developing their speaking skills.

The results of the T-test aimed to examine whether there are statistically significant differences between students' perceptions regarding the use of digital technologies as a learning tool. The analysis revealed that there are no statistically significant differences between students' attitudes related to age and gender. Finally, the respondents of the current study strongly confirm that using digital technology offers several benefits in developing their speaking skills.

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5. Recommendations

Finally, the researchers recommend the following:

- Future research on the impact of digital transformation in a foreign language should be conducted in a large group with many institutions, students, and teachers.
- Research on the role of digital transformation in creating a conducive learning environment for English language learners should be conducted.
- Language classes should be supported with digital technologies as a learning tool.
- Digital technologies should be considered by curriculum designers and material developers.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Acknowledgements:

We express our gratitude to the Sudan University of Science and Technology students who participated in this study. Thanks are extended to our colleagues for inspiring and pushing us to the core of our excellence. We are forever grateful.

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ISSN: 2576-8484
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DOI: 10.55214/2576-8484.v10i1.11768
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