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The Effect of Using Interactive Digital Tools on Improving EFL Secondary Stage Students' Oral Communication Skills

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Prepared by

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ABSTRACT

This study investigated the use of interactive digital tools *(i.e. My English Lab platform*) as a means of enhancing oral communication skills of EFL secondary stage learners. A quasi-experimental design was used involving two groups two groups of secondary stage students: an experimental group in which *My English Lab* was integrated into classroom instruction and a control group that received only traditional classroom instruction. The sources of data included pre- and post-tests of oral communication skills, as well as interviews with teachers and learners. The test scores revealed significant improvements in the experimental group's fluency, pronunciation, and interpersonal competence compared to the control group. The results also indicated large effect sizes, highlighting the added value of integrating *My English Lab*, where vocabulary, grammar, and pronunciation activities are assigned within communicative tasks. This integration created a more comprehensive learning space that fostered both retention and sustained learner engagement. The study concludes that *My English Lab* offers a viable digital tool for developing oral communication skills and serves as an effective model for mixed-mode pedagogy in the field of EFL learning.

Keywords: Interactive digital tools, My English Lab, oral communication skills, blended learning, digital language learning, EFL

أثر استخدام الأدوات الرقمية التفاعلية في تحسين مهارات التواصل الشفهي باللغة الإنجليزية كلغة أجنبية لدى طلاب المرحلة الثانوية

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ملخص الدراسة:

هدفت هذه الدراسة الى استخدام الأدوات الرقمية التفاعلية وتحديدا منصة *My English Lab* كوسيلة لتعزيز مهارات التواصل الشفهي باللغة الإنجليزية كلغة أجنبية لدى طلاب المرحلة الثانوية. واستُخدم فيها تصميم شبه تجريبي، حيث قُسِّم أفراد العينة إلى مجموعتين: المجموعة التجريبية التي استخدمت منصة *My English Lab* مدمجة في إطار التدريس الصفي، والمجموعة الضابطة التي اقتصرت على تلقي التدريس الصفي التقليدي. واعتمدت الدراسة على اختبارات قبلية وبعدية لمهارات التواصل الشفهي بالإضافة إلى مقابلات مع المعلمين والمتعلمين كمصادر لجمع بيانات الدراسة. وقد أوضحت النتائج وجود تحسن دال وملحوظ في الطلاقة والنطق والكفاءة في التفاعل مع الآخرين لدى أفراد المجموعة التجريبية مقارنةً بالمجموعة الضابطة. كما أظهرت النتائج ضخامة حجم التأثير، مما يُشير إلى القيمة المضافة للتصميم المتكامل لمنصة *My English Lab*، والتي تمارس فيها أنشطة المفردات والقواعد والنطق ضمن مهام تواصلية. وقد أتاح هذا الدمج مساحة تعلم أكثر تكاملاً، مما عزز من قدرة المتعلمين على الاحتفاظ بالمعلومات، بالإضافة إلى مشاركتهم وانخراطهم في عملية التعلم على المدى الطويل. وتخلص الدراسة إلى أن منصة *My English Lab* يقدم خيارًا رقميًا قابلاً للتطبيق في تنمية مهارات التواصل الشفهي، كما أنه يشكل نموذجًا فعالا في التدريس المختلط في مجال تعلم اللغة الإنجليزية كلغة أجنبية.

الكلمات المفتاحية: الأدوات الرقمية التفاعلية، My English Lab، مهارات التواصل الشفهي، التعلم المدمج، تعلم اللغة الرقمي، اللغة الإنجليزية كلغة اجنبية.

The Effect of Using Interactive Digital Tools on Improving Secondary Stage EFL Students' Oral Communication Skills

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1. Introduction

In the era of technological developments, there is an increasingly growing reliance on digital tools such as educational applications, online platforms, and language games to enhance conventional learning methods. English as a Foreign Language (EFL) is one of the fields that can greatly benefit from these developments to a large extent. Therefore, educators and researchers are investigating how interactive digital tools can promote oral communication skills of EFL learners, since they are crucial in providing engaging and interactive learning opportunities that can contribute to the enhancement of effective interaction in the foreign language. This can lead to evolution of language learning.

The evolution of language learning has shifted from learning about language to communicating in the language, to using language as a tool to access content (Moeller, 2018). Due in large part to the digital age, access to authentic language sources and resources is available on

demand through multimedia, social media, online conferencing, and a plethora of Web 2.0 apps and tools. The key to connecting the classroom and the global language community lies in incentivizing and motivating learners to pursue language practice and learning beyond the classroom walls where they can apply their acquired skills. When learners use language skills in authentic language contexts within language communities, motivation increases and purpose for language learning becomes real (Yu, 2016).

In the age of digital transformation, technology has become an integral part of education, including language learning. One of the most significant challenges in English language teaching is developing students' oral communication skills. Traditional classroom settings often limit the amount of time and opportunities students have to practice speaking in a meaningful context. However, the integration of technology offers innovative solutions to overcome these limitations by providing interactive and personalized learning experiences (Yulduz, 2025).

Due to the development of modern technology, it has become a necessity to integrate technology within the processes of teaching and learning. Besides, students are greatly interested in using computers and the Internet. Thus, teachers can make use of this by incorporating technology in teaching. The merge of face-to face learning and online learning can result in what is called blended learning. This type of learning can facilitate the students' acquisition of English skills in a collaborative and an interesting way (Alebaikan & Troudi, 2010).

In recent years, interactive digital tools have emerged as powerful aids in language education, offering immersive and engaging ways to practice speaking and listening. Tools such as Duolingo, Zoom, Google Meet, and AI-driven platforms like ELSA Speak provide learners with instant feedback, simulated conversations, and access to native speakers. Research by Warschauer (2009) highlights that technology can bridge the gap between classroom instruction and real-life communication, fostering autonomy and motivation among learners. Despite the potential benefits, the effectiveness of these tools in developing oral communication skills remains underexplored, particularly in EFL contexts. Thus, this study

seeks to fill this gap by examining how interactive digital tools impact EFL learners' oral proficiency, fluency, and confidence. Educational technology tools provide opportunities to contextualize language learning, to address individual learner needs, and to increase both teacher presence and peer interaction in the language learning process inside and outside the language classrooms.

2. Context of the Problem

Through the researcher's long experience in the field of English language teaching and research, it was observed that a considerable number of students demonstrate limited willingness to participate in speaking tasks, even when prompted to discuss familiar topics aligned with their prior knowledge and lexical repertoire. Their reluctance is frequently rooted in a fear of linguistic failure, peer judgment, and an overarching anxiety about making mistakes; factors that collectively hinder the development of communicative competence. These classroom realities reflect deeper pedagogical and systemic shortcomings. Despite the centrality of speaking as a productive skill within the communicative framework of language education, instructional practices remain largely constrained by traditional, teacher-centered methodologies. Predominant reliance on grammar-translation techniques, rote memorization, and scripted dialogues has yielded minimal impact on learners' ability to engage in spontaneous, meaningful interaction. Furthermore, students are rarely provided with explicit instruction on the functional components of effective speaking or exposed to authentic models of native-like discourse.

Due to this de-emphasis, speaking becomes an abstract, often intimidating construct, perceived by learners as less accessible than other language skills. Compounding these instructional gaps is an assessment system that disproportionately emphasizes reading and writing outcomes, while marginalizing the oral and aural dimensions of language proficiency. The limited time allocated for speaking activities, combined with rigid evaluation criteria and a lack of interactive learning environments, exacerbate learners' difficulties in fluency, pronunciation,

and pragmatic use of language. This constellation of pedagogical, affective, and systemic factors underscores the urgent need for alternative instructional strategies that are both engaging and linguistically enriching.

- **Pilot Study**

To gain a closer understanding of the nature of the problem, the researcher conducted a pilot study that included two sets of open-ended interviews with both EFL teachers and students at the secondary stage level in Sharkia Governorate to test the feasibility of using *My English Lab* as a supplementary tool for developing oral communication skills. The pilot aimed to evaluate the clarity of the platform instructions, the suitability of the tasks, and the responsiveness of the platform in supporting EFL learners.

During the pilot, students engaged in selected modules that included pronunciation drills, listening comprehension tasks, and interactive speaking activities. They were asked to record their responses and compare them with model recordings provided by the system. Feedback was collected through questionnaires and short interviews. The results indicated several key points:

Ease of Use: Most students reported that the platform was user-friendly and easy to navigate after a brief orientation.

Engagement: Learners showed higher levels of motivation when completing interactive tasks compared to traditional classroom activities.

Immediate Feedback: The automated feedback system was found to be particularly effective in helping students recognize pronunciation errors and improve accuracy.

Challenges: Some students initially faced technical difficulties, such as unstable internet connections, which occasionally interrupted activities.

Overall Effectiveness: The majority of students expressed positive attitudes toward integrating *My English Lab* into their language learning process, noting that it increased their confidence in speaking English.

Based on these findings, the platform was selected as a suitable tool for the main study. Minor adjustments were made, such as providing additional technical support and allocating extra time for orientation to ensure that all participants could use the platform effectively.

3. Statement of the Problem

Despite the growing recognition of speaking as a core component of communicative competence in EFL contexts, many Egyptian secondary stage students continue to struggle with oral communication. Observations by the researcher, corroborated by preliminary interviews with EFL teachers, reveal that traditional teaching methods such as rote memorization, grammar-translation, and scripted dialogues still dominate classroom practices. These approaches offer minimal opportunities for authentic oral communication and fail to foster the motivational or affective dimensions necessary for effective oral communication. Moreover, oral communication activities embedded within the prescribed curriculum are often mechanical and lack real-life communicative value. As a result, students remain hesitant to participate actively in oral communication tasks, frequently displaying limited lexical range, grammatical inaccuracy, pronunciation issues, and a general fear of making mistakes. In response to some oral communication problems among secondary stage students this study is an attempt to investigate the effect of the interactive digital tool (i.e. *My English Lab*) on developing oral communication skills of first year secondary stage students.

4. Research Questions

1- What are the oral communication skills most essential for EFL secondary stage students?

2- What is the effect of using interactive digital tools on improving EFL secondary stage students' oral communication skills?

5. Objectives of the Study

1- Identifying the most essential oral communication skills for EFL secondary stage students.

2- Investigating the effectiveness of the interactive digital tools (*My English Lab*) on developing EFL secondary stage students' oral communication skills.

6. Hypotheses of the Study

It was hypothesized that,

1-There is a statistically significant difference at the 0.05 level between the mean scores of the control group and the experimental group on the post administration of the oral communication test in favor of the experimental group results.

2-There is a statistically significant difference at the 0.05 level between the mean scores of the experimental group on the pre-post administration of the oral communication test in favor of the post administration results.

7. Delimitations of the study

The current study was limited to:

1. Fifty participants drawn from first year female students at Al Shaheed Osama Abdul Azim Coeducational Secondary School - West Zagazig Educational Department -Sharkia Governorate.
2. An intervention that focused on the interactive digital tool (*My English Lab*).
3. The improvement of the following oral communication skills:
   - Fluency in sustained speech.
   - Pronunciation and intonation accuracy.
   - Vocabulary range and appropriacy.
   - Grammatical accuracy in spoken interaction.
   - Coherence, cohesion, and interactive competence in dialogues and discussions.

These skills were identified through a review of literature and validated by EFL specialists as essential components for developing learners' oral proficiency. They were intended to cover a wide range of

oral communication abilities, from basic, literal speaking tasks to more creative and interactive speaking situations.

8. Significance of the Study

This study holds considerable significance on several interrelated levels: pedagogical, technological, and research-based particularly within the context of English language teaching in Egyptian secondary stage schools. At the pedagogical level, the study addresses a long-standing gap in the EFL classroom: the marginalization of oral communication skills in favor of reading and writing. Despite the recognized importance of oral communication as a core component of communicative competence, many English curricula in Egypt allocate minimal instructional time and attention to oral production. By introducing an interactive digital tool (*My English Lab*), this research offers a concrete, learner-centered alternative that emphasizes spontaneous communication, interaction, and performance-based learning. It contributes to rethinking how oral communication can be integrated into lesson plans through creative and authentic tasks that mirror real-life use of the language. Furthermore, it challenges traditional teacher-centered methods by promoting an active role for learners and encouraging risk-taking, improvisation, and expressive freedom.

At the technological level, the study is particularly relevant in the post-pandemic educational landscape, where remote and blended learning environments have become integral to modern instruction. By leveraging *My English Lab* as the delivery platform for the oral communication program, the research highlights the potential of digital tools not only for content dissemination but also for facilitating real-time oral interaction and learner creativity. It underscores how technology can be used not merely as a medium of transmission, but as a pedagogical space for meaningful, multimodal language use.

At the applied research level, the study offers empirical evidence on the impact of interactive digital tools (*My English Lab*) on oral communication skills. It bridges the gap between cognitive and affective

domains, providing a holistic understanding of how students develop oral proficiency when their emotional and psychological needs are taken into account. The data generated, quantitative and qualitative, will inform curriculum developers, language educators, and instructional designers in making evidence-informed decisions regarding the structure and content of oral communication –focused interventions.

Finally, in terms of future directions, the study lays a foundation for further research into the use of interactive digital tools in foreign language learning. It invites exploration into differentiated oral communication skills and how each can be nurtured through alternative instructional formats. It also encourages researchers to examine the role of digital literacy and sociocultural factors in shaping learners' responses to creative oral communication activities. In doing so, the study contributes to a broader understanding of how to develop empowered, confident, and communicatively competent English speakers in under-resourced and exam-oriented educational contexts like Egypt.

9. Literature Review

9.1 Oral Communication

Oral communication is a critical component of language learning, enabling learners to engage in meaningful interactions and express themselves effectively in real-world contexts. For EFL learners, developing oral proficiency is often challenging due to limited exposure to authentic language use and opportunities for practice. Traditional classroom methods, which emphasize grammar and writing skills, may not sufficiently address these challenges. Oral communication is a cornerstone of English as a Foreign Language (EFL) education. It plays an important role in helping learners communicate effectively, adapt to real-life situations and engage effectively in real-world interactions (Richards & Rodgers, 2014).

In our environment, foreign language students typically do not want to speak another language and often behave passively in the classroom. Students can be encouraged to see a foreign language as a tool

for social participation by providing them with oral skills training that allows them to communicate meaningfully and constructively, including exchanging information, negotiating meanings, defending and opposing ideas. Furthermore, students' oral communication skills can be improved by using English learning applications, which also encourage students to practice speaking the language and acquire it voluntarily rather than being forced (Ngu et al., 2021). Humans are social beings who constantly interact with each other. Therefore, it is very important to promote scenarios where language learners can experience real communication in a foreign language. It is the skill by which they are most often judged and through which they make or lose friends.

Many studies addressed improving oral communication. Based on a qualitative analysis of secondary sources and reflective teaching experience, the study of Dewan & Sharma (2025) aimed to identify the challenges in teaching oral communication in Nepalese ESL classrooms and to explore innovative methods for its enhancement. The findings revealed that instruction is heavily focused on grammar and writing due to large class sizes, insufficient teacher training, and a lack of resources, which collectively hinder the development of speaking skills. To address these issues, the study recommended revising the curriculum to prioritize oral communication, enhancing teacher training in communicative methodologies like task-based learning and role plays, improving access to teaching resources, reducing class sizes, and encouraging student participation through interactive activities to ultimately improve learners' fluency and confidence.

Yulduz (2025) explored how technological tools and platforms, such as language learning apps, video conferencing, and interactive language games, can significantly improve students' speaking abilities. The findings indicated that incorporating technology not only enhanced engagement and motivation but also provided more opportunities for real-world language practice. This paper reviews the current literature, presents an analysis of practical applications, and proposes a

methodology for using technology to improve oral communication skills in English lessons.

9.2 Interactive Digital Tools

Interactive digital tools and virtual learning spaces can be effective in engaging learners with language, content, and culture that promote language proficiency. However, the mere utilization of technology tools does not guarantee learner growth in language proficiency without careful attention to research-informed learning strategies and standards-based instructional design. Learning objectives and language functions drive instruction, and digital learning tools can provide differentiated learning opportunities and learner support that scaffold the learning process (Liu and Moeller, 2019).

Online digital tools are software, applications, technologies, plug-ins, add-ons or websites that are accessible via an Internet connection and enhance learners' ability to conduct a thorough literature review and to master the knowledge they need to learn. Online digital tools help learners to learn more effectively, become more aware of language errors and collaborate with their peers. The COVID-19 epidemic has made online digital tools popular and useful in the educational process (Alordiah et al.,2023).

The integration of interactive websites in English as a Foreign Language (EFL) instruction has transformed the development of speaking skills, especially for learners at the A2 level. These platforms offer dynamic and engaging environments where students can record their voices, receive feedback, and practice speaking in low-anxiety settings. Unlike traditional methods, interactive websites allow learners to repeat tasks, reflect on their performance, and gradually build fluency and confidence. Visual and auditory elements enhance comprehension and pronunciation, while peer collaboration encourages communicative competence. By supporting learner autonomy and providing personalized learning experiences, these tools address common barriers in oral language development such as fear of public speaking and limited classroom time (Pumalema et al., 2025).

Previous studies tackled using interactive digital tools in classrooms. Paiva & Ronaldo (2019) presented the results of a virtual ethnographic study developed in an online classroom in a public university in Brazil. The online activities aimed to help 70 students to develop English oral skills in a 60-hour course taught along 15 weeks using the Moodle Language Management System (LMS). After the initial weeks, and some dropouts, there were 63 participants in this study. The course was planned and managed by the authors of this article and some modifications were made along the experience in face of unexpected changes in the learning environment. Having as theoretical support complexity, connectivism, and learning ecology, they assessed digital tools for oral communication and verified that they had a positive impact on language learning and increased learners' opportunities for language practice. The tools not only contributed to the development of the students' oral skills but also decreased their anxiety when speaking English.

Karim et al., (2023) attempted to examine EFL students' speaking performance by using the ELSA speak application, further explored their perceptions, and found out the inhibiting factors influencing low performance in their speaking. A mixed-method research design was applied to obtain both quantitative and qualitative data. Twenty-one EFL students (5 Males and 16 Females) were involved in the data gathering process which was collected by using a test, questionnaire, and semi-structured interview. Furthermore, pre-test and post-test were conducted to examine their speaking ability, and a questionnaire using a 4-point Likert scale to examine their perceptions. In addition, a semi-structured interview was conducted to further explore the inhibiting factors of their low speaking performance. The findings revealed that students' speaking ability has significantly improved after using the ELSA application. The mean score of pre-test results was 75, meanwhile, the post-test score was 88. Of 20 respondents, 16 or 80% of respondents have positive perceptions that using ELSA may increase their speaking performance. Moreover, of 20 respondents, 19 or 95% of respondents perceived ELSA to be a great speech application that could boost their motivation to

improve their speaking performance. 18 or 90% of respondents perceived that this application has a good quality learning design.

Pumalema et al. (2025) examined the impact of online platforms on speaking performance, focusing on fluency, accuracy, motivation, and student participation. The study adopted a quantitative approach within a quasi-experimental design framework. The target population consisted of first-level English students enrolled in the Mechanical Engineering program. A non-probabilistic convenience sampling method was employed to select 30 participants who shared a comparable level of linguistic competence. Results suggested that digital tools played a significant role in enhancing oral communication skills and should be considered valuable components of modern language instruction.

9.3 My English Lab

Talalay (2023) conducted a study to elucidate the essence of *My English Lab* as a helping tool for blended learning and e-learning. *My English Lab* (MEL) was the solution and salvation. *My English Lab*, the online platform, is compatible with personal computers, laptops, mobile phones and tablets. The innovative online platform *My English Lab* could be used as a blended learning or as a flipped learning model. *My English Lab* consists of the following blocks: Assignment, Calendar, Course, Grade book, Messages, Settings. There is online workbook, which is called "Course". "Course" is packed with videos, reading, listening and writing activities, which correlate with the course book units. There are 12 Units on MEL as well as in the New Language Leader Advanced Course book. Each Unit on *My English Lab* consists of 6 lessons. Students can practice Listening, Reading and Grammar, Video, Writing Activities, as much as they want, while doing homework. MEL checks the tasks automatically and provides it on the screen. Every student can trace if he makes progress or regress. The teacher, as a mentor can spot how many attempts were made by every student in order to complete a certain task. The teacher also receives a report based on common mistakes, which could be made during the class. Each activity that students complete is recorded on *My English Lab* Grade Book, making it easy to see students' strengths and weaknesses. It can be viewed for the

whole class or individual students. Every student has got an online cabinet. Taking everything into account, the online platform *My English Lab* is innovative, provides an interactive environment, instant feedback and support from a teacher, helps improve Speaking, Listening, Reading and Writing. It doesn't replace the teacher, but *My English Lab* provides cutting-edge technology for the teacher and students in order to succeed in the English language acquisition.

Villón Chancay and Niola Sanmartin (2024) mention that among its benefits are:

a) The digital tool "*My English Lab*" offers a variety of exercises that teach and guide students in learning and practicing the language. In addition, many schools offer English classes that teach students the four skills of listening, speaking, reading, and writing. However, it is important to focus on speaking, as it is the skill that requires the most practice. The application is a viable intervention that can be implemented in a school setting where students can experience and practice.

b) Personalized learning: The digital tool "*My English Lab*" allows students to learn at their own pace and focus on the areas where they need more help. This can help them feel confident and motivated to improve their oral skills.

c) Immediate feedback: The digital tool "*My English Lab*" provides students with quick feedback on their work, helping them identify their strengths and weaknesses.

d) Collaborative learning: The digital tool "*My English Lab*" allows students to collaborate with each other on projects and activities, which helps them practice their oral skills in a safe and supportive environment.

e) Motivational features: The digital tool "*My English Lab*" includes motivating features such as badges, awards, and leaderboards. These features can help students stay motivated and engaged in learning.

Overall, the digital tool "*My English Lab*" has the potential to improve the oral skills by providing them with personalized learning, interactive activities, immediate feedback, collaborative learning, and motivating activities.

My English Lab, according to Julca (2022, p.1076), is a "virtual platform that provides interactive practice and assessment activities for students learning English as a foreign language. The product provides automatic feedback and correction tools to help students successfully develop their language learning. It also provides a versatile opportunity for teachers to customize assessment, diagnosis, and intervention tools, including analysis of common student errors, which allows them to focus on areas of difficulty in the classroom."

In a case study conducted by Barragán (2022), the effectiveness of *My English Lab* in improving students' oral skills and motivation was investigated. The research highlighted the interactive features of the digital tool, such as virtual conversation partners and personalized language exercises, which had a significant impact on the development of student oral skills. Additionally, the study showed a positive effect on student motivation, increasing engagement and perseverance in language learning.

González (2018) conducted a study to reflect upon the development of grammatical accuracy in speaking skills through the use of *My English Lab* platform, taking as context the teaching-learning process of English-as-a-Foreign-Language (EFL) at the Metropolitan Language School in Quito, Ecuador. It presented the main stages and criteria determined for the elaboration and assessment of a Didactic Framework for grammatical accuracy development in speaking skills. The main results of the research conducted stated that there was factual progress in the development of grammatical accuracy in students, regardless of the fact that EFL teachers still have to correct the students´ works in relation to the development of speaking skills.

10. The Theoretical Background

The current study is based on the three major approaches: complexity theory, connectivism and learning ecology. According to the complexity theory, Larsen-Freeman and Cameron (2008) indicate that language learning is a process involving a dynamic system that enhances interaction among the learners, the teacher, and objects. This implies that learning is not straight but takes twists and turns which occur unexpectedly. An instance of such an action is a small thing; e.g. a question by a student and it will refashion the entire course. According to Kramsch (2012), it is natural that such systems are open and self-organizing and constantly adjust to new circumstances. This added a lot of insight as to why student behaviors and progress in the Moodle course all too frequently took in a direction that was unexpected but, in some way, significant.

Connectivism and learning ecology contribute to this perspective, by placing emphasis on networks and the environment. Siemens (2006) defines connectivism as learning in terms of connecting people, resources and tools. It is appreciative of diversity, autonomy, interactivity and openness, the factors that were enshrined in the course through allowing students to make decisions regarding the tools available to them, exchange knowledge and cooperate online. The digital tool and situations in this study provide students with opportunities to practice speaking in a variety of ways thus demonstrating language learning as an interactive process supported by varying and reliable environments.

The integration of the three approaches was evident throughout the study. Complexity theory was reflected in the dynamic nature of student interactions on My English Lab, where unexpected patterns of engagement and progress shaped the learning process in real time. Connectivism appeared in the way students built networks by connecting with peers, resources, and tools on the platform, exchanging knowledge and collaborating through interactive tasks. Learning ecology was demonstrated in the creation of a blended learning environment that combined classroom supervision with autonomous online practice,

enabling students to access multimodal resources and practice oral communication in authentic and supportive contexts. Together, these three perspectives framed the study as a holistic process where learning emerged from interaction, connectivity, and an adaptive environment.

11. Method

The present study adopted the quasi-experimental design; one experimental group was taught using interactive digital tools (*My English Lab*) to improve oral communication skills of first year secondary stage students. The experimental group engaged with digital tools (*My English Lab*), while the control group received traditional instruction. The treatment took place during the first semester of the school year 2024-2025.

11.1 Participants

The participants in this study were 50 first-year female students from Al Shaheed Osama Abdul Azim Coeducational Secondary School located in the West Zagazig Educational Department of Sharkia Governorate. The sample was divided into two groups: 25 students were randomly selected to form the experimental group, which used interactive digital tools to enhance their oral communication skills in English, while the remaining 25 students formed the control group, which did not use the digital tools. Both groups were studying English as a foreign language (EFL) and were expected to develop basic oral communication skills as part of their academic curriculum. The experimental group engaged in activities designed to improve their speaking skills through the use of interactive digital tools, while the control group followed the traditional learning methods.

11.2 Instruments

11.2.1 The Oral Communication Skills Test

Aims of the Test

The primary aim of the oral communication skills test was to measure the effectiveness of the interactive digital tool (*My English Lab*) in developing first-year secondary stage students'

oral communication skills. The test was designed to assess the core components of oral communication – fluency, pronunciation and intonation, vocabulary use, grammatical accuracy, and interactive competence – through structured speaking tasks.

Construction of the Test

The test was divided into two main tasks that reflected authentic communicative situations and were aligned with the course content:

Task 1: Individual Presentation – Students selected one topic from a set of familiar, curriculum-related prompts (e.g., "The importance of building new cities to solve environmental and social challenges"). They were given one minute to prepare and then spoke for 2–3 minutes, demonstrating their ability to organize ideas, use appropriate vocabulary, and maintain fluency.

Task 2: Interactive Role-play – Students participated in a short dialogue with the examiner, simulating a real-life scenario (e.g., discussing urban development problems and solutions, or planning a community project). This task assessed their ability to respond spontaneously, ask and answer questions appropriately, and sustain a conversation. It was assigned from 5-7 minutes to each student.

These tasks were chosen because they provided opportunities for students to use all the oral communication skills targeted in the intervention – preparing coherent messages, using accurate grammar and pronunciation, and interacting effectively in English.

Validity of the Test

To establish content validity, the test was submitted to a panel of EFL specialists for review. The jury evaluated the alignment of the tasks with the intended oral communication skills and the suitability of the topics for the learners' level. Based on feedback, some prompts were simplified, and role-play situations were adjusted to reflect more authentic, age-appropriate contexts.

The panel agreed that the final form of the test was valid for assessing the targeted oral communication skills.

Reliability of the Test

A pilot administration was conducted one month before the main study with 30 first-year secondary students not included in the research sample, representing different proficiency levels. Test–retest reliability was determined by administering the same tasks to the same group after 28 days and computing correlation coefficients between the two sets of scores. Using SPSS (Cronbach's Alpha), the reliability coefficient was found to be 0.74, significant at the 0.05 level, indicating acceptable stability and consistency.

Scoring the Test

Two trained raters—the researcher and an experienced EFL teacher—assessed the performances independently. Before scoring, both raters met to review the analytic rating scale and co-score several sample recordings to ensure inter-rater agreement. The final scores were the average of the two raters' marks.

The analytic scoring rubric evaluated five equally weighted criteria:

1. Fluency
2. Pronunciation & Intonation
3. Vocabulary & Appropriacy
4. Grammar & Accuracy
5. Coherence & Interaction

Each criterion was scored on a 1–5 scale (maximum total score = 25). The rubric descriptors were adapted from established oral proficiency frameworks.

Instructions of the Test

Test instructions were provided in clear, simple English and explained orally before the test began. They included:

- The purpose of the test.
- The time limits for each task (approx. 5–6 minutes total per student).
- The assessment criteria and emphasis on natural, effective communication rather than memorization.

Duration of the Test

To determine the average duration, the total time taken for all students during the pilot was divided by the number of students tested. The mean testing time was approximately 6 minutes per student, plus 1 minute for instructions, making the total time per participant about 7 minutes. The researcher used the following equation:

The test time = **the sum of each student's time**
the total number of students

11.3 Treatment

In this study, *My English Lab* was integrated as a digital platform to enhance learners' oral communication skills through structured, interactive tasks within the notion of blended learning and under teacher supervision. The platform was selected because it provides multimodal resources, immediate feedback, and a progression-based learning environment suitable for EFL contexts.

The implementation followed a clear mechanism. First, students were given access to the platform using their tablets and oriented on how to use its tools. Weekly sessions were then scheduled in which learners completed specific modules aligned with the objectives of the study. These modules included listening and speaking activities, pronunciation drills, vocabulary practice, and grammar-based exercises designed to support oral communication.

The use of *My English Lab* took place under the direct supervision of the teacher during class time, while students also used it individually for homework and self-practice. The platform was integrated into three sessions per week, each lasting 45 minutes, over

a period of eight consecutive weeks with a total of 24 sessions (25 minutes in each session were assigned to the use of the platform). Activities were sequenced in a structured way, beginning with listening tasks to provide input, followed by pronunciation drills and vocabulary practice, then moving to grammar-based exercises, and finally oral communication tasks such as role-plays and discussions. This order ensured that learners first received exposure to authentic language, then practiced accuracy, and finally applied their skills in communicative contexts.

The platform allowed students to record their own voices, compare them with model audio, and receive instant feedback on pronunciation and accuracy. This feature was especially important for developing speaking fluency and reducing hesitation. In addition, interactive listening tasks exposed learners to authentic English input, which they later practiced in pair and group discussions in class.

My English Lab also provided a tracking system where teachers monitored student progress, identified areas of weakness, and gave targeted support. Students were assigned weekly homework on the platform, such as role-play dialogues, comprehension quizzes, and vocabulary reinforcement exercises. These tasks were designed to encourage autonomous learning outside the classroom.

Through this blended approach, the platform acted as both a classroom extension and a self-study tool. Students reported increased engagement and confidence in practicing English because they could repeat tasks at their own pace. The system's interactive design and feedback loop made learning more personalized and effective.

12. Results

12.1 Descriptive Statistics

Table (1) presents the descriptive statistics for the pre-test and post-test oral communication scores of both the experimental and control groups. The pre-test means for the two groups were nearly identical (M = 13.84, SD = 2.15 for the experimental group; M =

13.92, SD = 2.07 for the control group), indicating comparable oral communication proficiency prior to the intervention.

Table (1) Descriptive Statistics for Pre- and Post-Test Scores

Group	Test	n	M	SD	Min	Max
Experimental	Pre-test	25	13.84	2.15	10.0	18.0
Experimental	Post-test	25	20.56	2.38	16.0	24.0
Control	Pre-test	25	13.92	2.07	10.0	18.0
Control	Post-test	25	15.04	2.45	11.0	19.0

Within-Group Comparisons

A paired-samples t-Test was conducted to compare pre-test and post-test scores within each group (see Table 2). For the experimental group, post-test scores (M = 20.56, SD = 2.38) were significantly higher than pre-test scores (M = 13.84, SD = 2.15), t (24) = 15.98, p < .001, Cohen's d = 3.20, indicating a very large effect. For the control group, post-test scores (M = 15.04, SD = 2.45) were also significantly higher than pre-test scores (M = 13.92, SD = 2.07), t (24) = 3.03, p = .006, Cohen's d = 0.61, representing a moderate effect.

Table (2) Paired-Samples t-Test for Pre–Post Scores

Group	Mean Diff.	SD Diff.	*t*(df)	*p*	Cohen's *d*
Experimental	6.72	2.10	15.98(24)	<.001	3.20
Control	1.12	1.85	3.03(24)	.006	0.61

Between-Group Comparisons

An independent-samples *t*-Test was conducted to compare post-test scores between the experimental and control groups (see Table 3). The experimental group (M = 20.56, SD = 2.38) scored significantly

higher than the control group (M = 15.04, SD = 2.45), t (48) = 8.33, p < .001, Cohen's d = 2.34, representing a very large effect size.

Table (3) Independent t-Test for Post-Test Scores

Group	n	M	SD	*t*(df)	*p*	Cohen's *d*
Experimental	25	20.56	2.38	8.33(48)	<.001	2.34
Control	25	15.04	2.45			

Skill-by-Skill Improvement

To better understand specific areas of improvement, mean scores for each oral communication subskill were analyzed for the experimental group. Table 4 shows substantial gains in all skills, with the largest percentage improvements in vocabulary (+57.7%) and pronunciation (+55.6%).

Table (4) ***Experimental Group Pre–Post Mean Scores by Skill Area***

Skill Area	Pre-test M	Post-test M	Mean Gain	% Improvement
Fluency	2.8	4.3	1.5	53.6%
Pronunciation & Intonation	2.7	4.2	1.5	55.6%
Vocabulary & Appropriacy	2.6	4.1	1.5	57.7%
Grammar & Accuracy	2.9	4.2	1.3	44.8%
Coherence & Interaction	2.9	4.3	1.4	48.3%

12.2 Summary of Findings

- Significant overall improvement was found in the experimental group after using *My English Lab*, with a very large effect size (Cohen's d = 3.20).
- The control group also improved but to a lesser degree, with a moderate effect size (Cohen's d = 0.61).
- Post-test differences between groups were large and statistically significant ($p < .001$), favoring the experimental group.
- The most notable gains were in pronunciation, vocabulary, and fluency, likely reflecting *My English Lab*'s emphasis on interactive speaking tasks, pronunciation feedback, and context-based vocabulary practice.

13. Discussion of Findings

The current study examined the effect of using *My English Lab* as an interactive digital tool of teaching/learning in the area of oral communication among secondary stage students learning English as a foreign language. The results provided clear evidence that the students involved in the experimental tasks of targeted oral communication learning through *My English Lab* performed much better in comparison to those of the control group which has been taught in traditional way. In this section, these findings will be analyzed considering the research hypotheses, associated literature and with respect to EFL pedagogy.

Figure (1) below illustrates the pre-test and post-test mean scores for both the experimental and control groups. The experimental group showed a substantial increase in mean scores following the intervention using *My English Lab*, while the control group exhibited only a modest improvement.

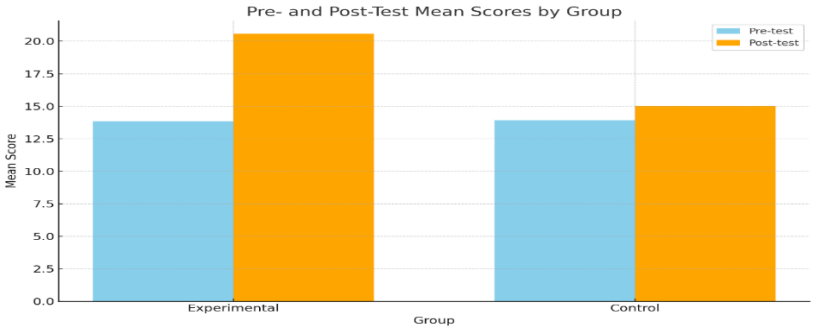

Figure 1. Pre- and Post-Test Mean Scores for Experimental and Control Groups

The first hypothesis that assumed that the post-test results would significantly differ among the experimental and the control groups with the experimental one being the best performing was highly supported. The post-test mean score of the experimental group (M = 20.56) was significantly higher than that of the control group (M = 15.04) with a very large effect size, d = 2.34. This gain aligns with the existing literature on technology-facilitated speaking practice that demonstrates that such type of oral practice can increase the pace of oral language acquisition (Golonka et al., 2014; Kukulska-Hulme, 2020).

The second hypothesis that there would be a significant pre–post improvement among the experimental group was also proved. The improvement in the experimental condition was statistically undeniably significant (Cohen s d = 3.20), which ascertains that *My English Lab* helped to achieve the measurable improvement in the skill levels during a relatively short instructional time frame.

The greatest increase was witnessed in vocabulary and appropriacy (before=57.3, after=95) and pronunciation and intonation (before=47.5, after=74.5). These results are consistent with the design of the platform that incorporates AI feedback on pronunciation, contextual and graded learning of vocabulary, and fluency training. Instantaneous and direct feedback is an important affordance of digital tools according to Warschauer (2009) and it seems that it has been a direct gain of the learners who were in the experimental group.

The increases in Fluency (+53.6%) can be attributed to the exposure to communicative assignments, namely, the modules in *My English Lab*, Role-Play, and Speak Up, where students have a chance to practice spoken communication tasks with some freedom of spontaneously produced utterances. This confirms the statement by Nunan (2017) that real-time processing is developed and hesitation is minimized by using frequent and meaningful speaking practice.

These findings reflect the conclusions of other studies with alternate interactive digital speaking tools, including ELSA Speak **(**Karim et al., 2023) and Zoom-based speaking practice (Alordiah et al., 2023). With *My English Lab*, like these tools, multimodal materials are provided, as well as a structure or sequence, and the variety of activities: all of which researchers have found to contribute to greater engagement and retention on the part of the learners. Nevertheless, the effect sizes in the study were significantly greater than those in some previous interventions, possibly because *My English Lab* offers an integrated approach to its vocabulary, pronunciation and grammar exercises, and so presents a more global learning context.

Pedagogical Implications

The strong results for the experimental group highlight several instructional advantages of integrating *My English Lab* into EFL classrooms:

1. **Personalized Feedback** – The automated speech recognition and pronunciation scoring tools allow learners to self-correct before interacting with peers or instructors.
2. **Increased Practice Time** – Digital tasks extend learning beyond the classroom, providing opportunities for independent rehearsal and mastery.
3. **Authentic Interaction** – Scenario-based role-plays simulate real-world communication, increasing learner motivation and relevance.

4. **Data-Driven Teaching** – The platform's analytics enable teachers to track progress and target weak areas more effectively.

According to the findings of the study, there was a significant increase in improvement of the oral communication skills of the students in the experimental group as opposed to the control group. In particular, learners who worked on *My English Lab* have shown to be more confident in oral work and communication skills as *My English Lab* gave students the feedback-based guidance in pronunciation and vocabulary. *My English Lab* is interactive which in combination with aspects of speech recognition, provided learners with the opportunity to quickly learn what they were doing wrong in their performance and rectify them there and then.

14. Conclusions

Interactive digital tools can have a tremendous positive effect on the EFL learners in terms of their oral communication skills, providing alternative and engaging ways to scale traditional means. In the future, it may be possible to investigate long-term retention and tool-size effects. In summary, the results of the present study were highly convincing as to the efficacy of the *My English Lab* as an interactive and digital tool to be utilized to improve oral communication skills among EFL students. Improvements in areas such as fluency, pronunciation, vocabulary, grammar, and conversation show what technology-enhanced teaching can do to resolve nagging problems in teaching speaking. When well-planned and applied to the curriculum, these tools can enhance both deliverable language results and learner confidence, self-sufficiency and motivation.

The results of this study showed that *My English Lab* is an effective tool for improving oral communication skills. The study provided more evidence to support the growing body of research that suggests that digital tools can be effective for developing oral communication skills. The tool offers a variety of activities and exercises that are engaging and challenging and provides students with immediate feedback on their

progress. The tool also allows students to practice their oral communication skills in a safe and supportive environment, providing additional evidence to support the growing body of research that suggests that digital tools can effectively improve spoken communication skills. The results of this study are consistent with those of other studies that have investigated the effectiveness of digital tools for developing oral skills. These studies show that digital tools can be valuable for helping students practice their oral skills in a way that is engaging, challenging, and effective.

15. Recommendations for Future Research

- Since the number of participants was small (n = 50) and since they were drawn from only one school, which is a limitation to generalizability, extending the scope of investigation to include large numbers of students and many schools at the various educational levels is recommended.
- Since the study only measured short-term gains in oral communication skills, longitudinal research would be helpful to investigate whether such gains hold or transfer to the real world outside the classroom.
- Since the study was restricted to one interactive digital tool (*My English La*b), a comparison of *My English Lab* with other digital tools to show the relative effectiveness of these tools in enhancing oral communication and other language skills is recommended.
- A comparison of whether the integration of *My English Lab* within the traditional classroom works better than in total individualized learning modes or the other way round is recommended.
- Since the study was restricted to female students; hence, a comparison of the performance of female and male students will be useful in showing whether there are sex differences in using interactive digital tools like *My English Lab*.

References

Alebaikan, R., & Troudi, S. (2010). Blended learning in Saudi universities: Challenges and perspectives. *Research in Learning Technology*, 18 (1), 49-59. https://doi.org/10.1080/09687761003657614

Alordiah, O., C., Osagiede, A., M., Omumu, C. F., Okokoyo, E. I., Emiko-Agbajor, T. H., Chenube, O. & Oji, J. (2023). Awareness, knowledge, and utilisation of online digital tools for literature review in educational research. *Heliyon*, 9 (1). https://doi.org/10.1016/j.heliyon.2022.e12669.

Dewan, M. S., & Sharma, B. D. (2025). Enhancing oral communication in English as a second Language. *Journal of Tikapur Multiple Campus*, 8, 18-41. https://nepjol.info/index.php/JoTMC/article/view/75949

Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: a review of technology types and their effectiveness. *Computer Assisted Language Learning*, 27(1), 70–105. https://doi.org/10.1080/09588221.2012.700315

González, A. A. (2018). Using My English Lab platform to develop grammatical accuracy in speaking skills. *Journal for Educators, Teachers and Trainers*, 9 (1), 193 – 207. https://jett.labosfor.com/index.php/jett/article/view/175

Julca, G. (2022). *The My English Lab Platform and its Relationship with Oral Text Comprehension in Learning English as a Foreign Language in the Sixth Grade of Primary Education at the Bertolt Brecht School, Colonial Campus*, Lima, 2020 (Unpublished Doctoral Dissertation, Universidad Católica Sedes Sapientiae). https://repositorio.ucss.edu.pe/item/5174dc20-4733-46ca-945b-0dec5b6acfac

Karim, S. A., Hamzah, A. Q. S., Anjani, N. M., Prianti, J., & Sihole, I. G. (2023). Promoting EFL students' speaking performance through ELSA Speak: An artificial intelligence in English language learning. *Journal of Languages and Language Teaching*, 11(4), 655–668. https://doi.org/10.33394/jollt.v11i4.8958

Kramsch, C. (2012). Why is everyone so excited about complexity theory in applied linguistics? *Mélanges Crapel*, 33, 9-24. https://www.atilf.fr/wpcontent/uploads/publications/MelangesCrapel/file-34-2-1.pdf

Kukulska-Hulme, A. (2020). *Mobile-Assisted Language Learning*. Cambridge: Cambridge University Press.

Larsen-Freeman, D. & Cameron, L. (2008). *Complex Systems and Applied Linguistics*. Oxford: Oxford University Press.

Liu, X. & Moeller, A. J., (2019). *Promoting Learner Engagement through Interactive Digital Tools*. Faculty Publications: Department of Teaching, Learning, and Teacher Education, 310. http://digitalcommons.unl.edu/teachlearnfacpub/310

Moeller, A. J. (2018). President's message. *Foreign Language Annals*. 51:5–8. https://onlinelibrary.wiley.com/doi/pdf/10.1111/flan.12330

Ngu, D. T., Huong, D. T., Ngoc Huy, D. T., Thanh, P. T., & Döngül, E. S. (2021). Language teaching application to English students at master's grade levels on history and macroeconomic-banking management courses in universities and colleges. *Journal of Language and Linguistic Studies*, 17 (3), 1457–1468. https://www.jlls.org/index.php/jlls/article/view/3268

Nunan, D. (2017). *Task-Based Language Teaching*. Oxford: Oxford University Press.

Paiva, V. L. & Ronaldo, C. G. (2019). Digital tools for the development of oral skills in English". *Quarterly of Iranian Distance Education Journal*, 2 (1), 9-22. https://doi.org/10.1590/0102-445008554706004546

Pumalema, S. P., Yerovi, E. J., Rodriguez, M. A., & Cabrera, L. F. (2025). Impact of interactive websites on the development of speaking skills at A2 level in EFL learners. *Polo del Conocimiento*, 10(7), 437-448. https://polodelconocimiento.com/ojs/index.php/es/article/view/9900

Richards, J. C., & Rodgers, T. S. (2014). *Approaches and Methods in Language Teaching* (3rd ed.). Cambridge: Cambridge University Press. https://dl.alijafarnode.ir/file/sample.Approaches.2nd.Richards.pdf

Siemens, G. (2006). Knowing knowledge. Retrieved from *E learnspace: everything e-learning*. http://www.elearnspace.org/KnowingKnowledge_LowRes.pdf

Talalay, y. (2023). My English Lab – a helping tool for blended learning and e-learning. *Current Issues in Humanities*, 2023328. https://doi.org/10.24919/2308-4863/64-2-52

Villón Chancay, M. & Niola Sanmartin, R. (2024). Implementation of digital tool "My English Lab" to improve oral skill of sixth grade students at Rubira School. *LATAM Revista Latinoamericana de Ciencias Sociales y Humanidades* 5 (1), 1061 – 1077. https://doi.org/10.56712/latam.v5i1.1657

Warschauer, M. (2009). *Laptops and Literacy: Learning in the Wireless Classroom*. Teachers College Press.

Yu, F. (2016). *Motivation of High School Students in a STARTALK Chinese Immersion Program: A Mixed Methods Case Study*. (Unpublished Doctoral Dissertation), University of Nebraska-Lincoln, Lincoln, NE.

https://digitalcommons.unl.edu/dissertations/AAI10102724

Yulduz, J. (2025). Integrating technology to improve oral communication in English lessons". *International Journal of Multidisciplinary Research*, 2 (2), 179-183. https://zenodo.org/records/14888404