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RESEARCH ARTICLE

Revolutionizing English Language Learning with AI: Boosting Student Receptive and Productive Skills

Insaf KHOUDRI*

Moulay Ismail University, ENS Meknes, Morocco

ARTICLE INFO	ABSTRACT
  *Corresponding Author: insaf.khoudri@edu.umi.ac.ma	Future EFL graduates are anticipated to enhance both their receptive and productive skills. However, some students lack the necessary guidance and support. In today's digital era, students have ample opportunities to develop their English skills independently, as AI tools offer a range of features to assist learners. Therefore, this paper aims to evaluate the effectiveness of three AI tools (Turboscribe, Gliglish, and Jenni) in improving students' listening, reading, speaking, and writing skills. To achieve this, an online survey adapted from Silvertre et al. (2022) and based on the Technology Acceptance Model (TAM) theory was administered to 183 EFL undergraduate students from three universities. Following data collection, the data was analyzed using SPSS version 25. The results indicated that Turboscribe, Gliglish, and Jenni positively impacted students' behaviors, demonstrating their intent to use these tools to improve their English skills. Additionally, the study found that these AI tools were user-friendly and beneficial for knowledge enhancement. Future research should explore why some students find these tools ineffective or challenging and why they continue to prefer traditional learning methods over AI technology, despite its potential to save time and effort. .

INTRODUCTION

University students enrolled in classrooms with 200 or more peers often suffer from inadequate feedback on their work, insufficient monitoring, and an overreliance on university instructors. This reliance stems from the mindset developed in high school. These students lack exposure to spoken and written forms of the language, and they primarily rely on listening to their teachers in English without sufficient writing practice. However, insufficient exposure to both receptive and productive skills in learning a foreign language can lead students to feel helpless, develop poor proficiency, fail, and potentially drop out. Fortunately, with the advent of AI in education, students now have greater support and resources, reducing the necessity for independent language skill acquisition. AI provides tools that can enhance both receptive and productive language skills, fostering greater student autonomy and reducing dependence on teachers.

Despite the potential benefits, research on AI tools to improve language proficiency is limited (Liu et al., 2024). In a similar vein, Chun (2019) highlights that to progress L2 education in the era of AI, language educators must consider not only the technological advancements at their disposal but also how these tools can discern and leverage learners' capabilities to fulfill their particular objectives. Existing studies often investigate the same tools from different angles, focusing specifically on primary, secondary, or high school education. Moreover, research tends to concentrate on one or two tools, without comprehensive studies examining multiple tools simultaneously or addressing both receptive and productive skills. Therefore, this paper aims to investigate three AI tools expected to

enhance the receptive and productive skills of undergraduate students majoring in English across three different Moroccan universities.

Research questions

To achieve the purpose of this paper, two questions need to be answered:

1. To what extent do Moroccan undergraduate students from the Department of English find Turboscribe, Gliglish, and Jenni AI effective in developing their receptive and productive skills?
2. To what extent do Moroccan undergraduate students from the Department of English find Turboscribe, Gliglish, and Jenni AI useful and easy to use in enhancing their receptive and productive skills?

Research hypotheses

To answer the research questions, we aim to test these hypotheses based on the research questions:

H_0: Moroccan undergraduate students from the Department of English find Turboscribe, Gliglish, and Jenni AI ineffective in developing receptive and productive skills.

H_1: Moroccan undergraduate students from the Department of English find Turboscribe, Gliglish, and Jenni AI effective in developing receptive and productive skills.

H_0: Moroccan undergraduate students from the Department of English find Turboscribe, Gliglish, and Jenni AI useless and difficult to use in enhancing their receptive and productive skills.

H_1: Moroccan undergraduate students from the Department of English find Turboscribe, Gliglish, and Jenni AI useful and easy to use in enhancing their receptive and productive skills.

LITERATURE REVIEW

Receptive and productive skills

Most English students are familiar with the concepts of receptive skills (reading and listening) and productive skills (speaking and writing). However, understanding the importance of developing both receptive and productive skills in English, and knowing exactly what these skills entail, is a different matter altogether.

Receptive skills refer to the capacity to comprehend and interpret information obtained through listening or reading. Reading involves translating written symbols, analyzing textual content, and extracting meaning from sources like books, articles, and online content. This process includes various techniques, such as searching for particular details, quickly grasping the main idea, and deducing meaning from context. Listening, conversely, involves taking in and making sense of spoken words, extracting key details, and comprehending the overall message delivered through speech. This process includes identifying sounds, recognizing linguistic patterns, and understanding spoken language at multiple levels, from individual phonemes to the broader context of conversation (Abdushukurova, 2024a). Successful listening comprehension involves not only understanding spoken language but also drawing conclusions, anticipating upcoming information, and ensuring comprehension for better retention. Competent readers utilize a range of mental strategies, including quickly browsing, searching for specific details, forecasting content, and condensing information to interpret text and find key points (Abdushukurova, 2024b).

Masduqi and Fatimah (2023) highlight the importance of productive skills, also referred to as active skills, emphasizing their role in bridging cultures, facilitating communication, creating written content, and offering insights into diverse viewpoints (Aisyah et al., 2024). Speaking is a form of verbal interaction where speakers and listeners exchange ideas or information, forming opinions based on facts, whether in a social or transactional context (Mohammed, 2021; Svetlana, 2023). Aisyah et al. (2024) characterize writing as a social instrument that enables interpersonal communication. There are two main reasons why EFL students struggle with writing. According to Toba et al. (2019), these issues stem from a lack of understanding of the content or writing topic, as well as personal factors such as anxiety.

AI-powered learning tools that enhance both receptive and productive skills

Turboscribe (Listening and Reading)

TurboScribe is an online application, powered by AI that converts audio and video files into text. For free, educators and students can create an account to transcribe three files per day for thirty minutes per file. It delivers accuracy in transcriptions, is capable of transcribing in a wide range of languages can translate transcripts or subtitles to hundreds of languages, identifies different speakers in the transcription, plus ensures data privacy and secure file handling. This AI tool was used by many scholars (Romero, 2024; Vu, 2024; Rifa, 2024; Geyer & Rosignoli, 2024; Degner, 2024; Gardner, 2024) who expressed its easiness and usefulness in their papers.

Gliglish (Speaking)

Gliglish is an AI-powered language learning assistant designed to boost users' fluency and confidence in speaking various languages. It offers intelligent features such as customizable speaking rates, multilingual voice recognition, and grammar feedback. Gliglish supports an array of languages, including English, French, German, Portuguese, Russian, Spanish, and more. Gliglish is a tool that delivers a budget-friendly alternative to personal language instruction. It enables users to practice on their own, which helps them gain confidence in diverse scenarios. Furthermore, the software is regularly refreshed with new functionalities to enhance the learning journey, it saves time, and money, is adjustable in speed**,** provides feedback on users' grammar and pronunciation, and offers translation as well (Ariawan, 2024).

Jenni AI (Writing)

Fang et al. (2024) indicate that Jenni.ai is aimed at improving writing skills, especially for academic papers and citation tasks. Pinzolits (2024) points out that it offers features such as AI-enhanced autocompletion, citation creation, and text rephrasing, and is useful for various types of content. Researchers including Lee and Smith (2022) and Yugandhar and Rao (2024) suggest that incorporating AI tools like Jenni.ai into educational settings can bring substantial benefits. Jenni.ai provides tailored solutions that meet individual needs, offer customized learning experiences, give immediate feedback, and can simulate real-life language use scenarios (Yugandhar & Rao, 2024).

THEORETICAL BACKGROUND

The Technology Acceptance Model (TAM) is a prominent framework used to understand how individuals accept and adopt new technologies, focusing on the human factors that influence this process (Silva, 2015). Widely applied in research on information systems, TAM was developed by Davis (1989) to identify the factors that affect technology adoption and usage. The model investigates users' beliefs, their intentions to engage with technology, and their actual use of it. TAM posits that perceived ease of use and perceived usefulness are crucial factors that shape these intentions, which in turn impact technology usage (Silva, 2015). Moreover, the perceived ease of use and usefulness are affected by various external influences (Opoku & Enu-Kwesi, 2019). The framework is clearly illustrated in the figure below (Figure 1).
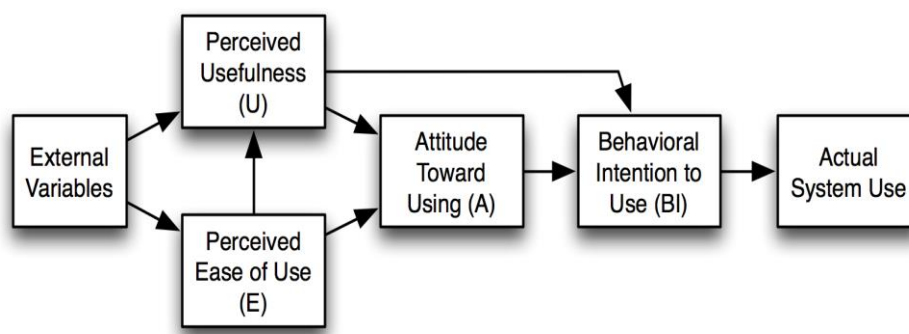

Figure 1: Technology Acceptance Model

METHODOLOGY

Research design

As the aim of this paper is to investigate alternative ways to boost students receptive and productive skills using AI tools namely Turboscribe, Gliglish, and Jenni, this paper uses a case study focusing on undergraduate students from the Department of English, employing a quantitative approach to collect data

Participants

Data was collected from Moroccan EFL undergraduate students from the Department of English of three universities: Ibn Tofail University, School of Arts and Humanities; Sidi Mohamed Ben Abdelah University, Dhar El Mahraz Faculty; and Moulay Ismail University, School of Arts and Humanities. The student distribution was as follows: 19.1% from Moulay Ismail University, 45.9% from Ibn Tofail University, and 35% from Dhar El Mahraz Faculty. In terms of academic year, 14.2% were first-year students, 43.2% were second-year students, and 42.6% were third-year students. The gender distribution was 47% female and 53% male, with ages ranging from 17 to 22.

Table 1: Students' affiliations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moulay Ismail University, School of Arts and Humanities	35	19.1	19.1	19.1
	Ibn Tofail university	84	45.9	45.9	65.0
	Dhar El Mahraz Faculty	64	35.0	35.0	100.0
	Total	183	100.0	100.0	

Table 2: Students' level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	first year	26	14.2	14.2	14.2
	second year	79	43.2	43.2	57.4
	third year	78	42.6	42.6	100.0
	Total	183	100.0	100.0	

Table 3: Students' gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	86	47.0	47.0	47.0
	Male	97	53.0	53.0	100.0
	Total	183	100.0	100.0	

Table 4: Student's age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	4	2.2	2.2	2.2
	18	19	10.4	10.4	12.6
	19	18	9.8	9.8	22.4
	20	93	50.8	50.8	73.2
	21	22	12.0	12.0	85.2
	22	27	14.8	14.8	100.0
	Total	183	100.0	100.0	

Data collection and analysis

Data was collected using a questionnaire adapted from Silvertre et al. (2022), based on the TAM framework. The researcher focused on three factors expected to influence students' use of AI tools (Turboscribe, Gliglish, and Jenni) to enhance their receptive and productive skills. These factors were tool usefulness, measured by the statement "This tool would improve my skills," tool ease of use, measured by the statement "learning through this tool is easy," and behavioral intention to use the tools, also measured by the statement "I intend to be a strong user of this tool." The questionnaire was created using Google Forms and employed a 5-point Likert scale, with responses ranging from 1 (strongly disagree) to 5 (strongly agree). The survey link was disseminated to students via WhatsApp and Facebook groups, as well as through emails, to collect as much data as possible.

After collecting the data, the researcher exported it to an Excel spreadsheet and coded it. The data was then entered into SPSS version 25, where it was decoded and prepared for analysis. The researcher conducted a descriptive statistical analysis using frequencies and percentages

RESULTS

Turboscribe (listening and reading)

Table 5: I intend to be a strong user of this tool

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	7	3.8	3.8	3.8
	Disagree	7	3.8	3.8	7.7
	Neutral	13	7.1	7.1	14.8
	strongly agree	43	23.5	23.5	38.3
	Agree	113	61.7	61.7	100.0
	Total	183	100.0	100.0	

Based on Table 5, only 3.8% of students strongly disagreed, and another 3.8% disagreed with the statement indicating they do not intend to use the tool. Meanwhile, 7.1% were neutral. In contrast, 23.5% strongly agreed, and 61.7% agreed with the statement.

Table 6: This tool would improve my English skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	33	18.0	18.0	18.0
	strongly agree	141	77.0	77.0	95.1
	Agree	9	4.9	4.9	100.0
	Total	183	100.0	100.0	

As demonstrated in Table 6, 18% of the participants were unsure if this tool would improve their English skills. However, 4.9% agreed, and a significant 77% strongly agreed that it would.

Table 7: Learning through this tool is easy for me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	31	16.9	16.9	16.9
	Agree	152	83.1	83.1	100.0
	Total	183	100.0	100.0	

In Table 7, all students agreed that the tool is easy to use for learning, with 16.9% strongly agreeing and 83.1% agreeing.

Gliglish (speaking)

Table 8: I intend to be a strong user of this tool

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	2.7	2.7	2.7
	Disagree	15	8.2	8.2	10.9
	Neutral	17	9.3	9.3	20.2
	strongly agree	108	59.0	59.0	79.2
	Agree	38	20.8	20.8	100.0
	Total	183	100.0	100.0	

From Table 8, 2.7% of the participants strongly disagreed with the intention to use this tool, and 8.2% disagreed. Additionally, 9.3% were neutral. Conversely, 59% strongly agreed, and 20% agreed with the intention to be users of this tool.

Table 9: This tool would improve my English skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	33	18.0	18.0	18.0
	strongly agree	90	49.2	49.2	67.2

		Frequency	Percent	Valid Percent	Cumulative Percent
	Agree	60	32.8	32.8	100.0
	Total	183	100.0	100.0	

Table 9 shows students' perceptions of whether this tool improves their English skills. Among the participants, 18% were neutral, while 49.2% strongly agreed, and 32.8% agreed.

Table 10: Learning through this tool is easy for me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	29	15.8	15.8	15.8
	strongly agree	140	76.5	76.5	92.3
	Agree	14	7.7	7.7	100.0
	Total	183	100.0	100.0	

From Table 10, it is evident that 15.8% of the participants were undecided about whether this tool is easy to use. Meanwhile, 76.5% strongly agreed that the tool is easy to use, and 7.7% agreed.

Jenni AI (writing)

Table 11: I intend to be a strong user of this tool

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	12	6.6	6.6	6.6
	strongly agree	106	57.9	57.9	64.5
	agree	65	35.5	35.5	100.0
	Total	183	100.0	100.0	

Table 11 shows students' intentions to use this tool. Only 6.6% disagreed, while 57.9% strongly agreed and 35.5% agreed.

Table 12: This tool would improve my English skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	12	6.6	6.6	6.6
	neutral	38	20.8	20.8	27.3
	agree	133	72.7	72.7	100.0
	Total	183	100.0	100.0	

Based on Table 12, participants strongly disagreed with the notion that this tool would improve their English skills. However, 20.8% were neutral, and 72.7% agreed that the tool would indeed enhance their English skills.

Table 13: Learning through this tool is easy for me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	48	26.2	26.2	26.2
	neutral	4	2.2	2.2	28.4
	strongly agree	131	71.6	71.6	100.0
	Total	183	100.0	100.0	

According to Table 13, 26.2% of participants view learning through this tool as easy, 2.2% are neutral, and 71.6% strongly agree that it is easy to use.

DISCUSSION

This paper aims to explore alternative methods using AI tools to enhance undergraduate students' receptive and productive skills through three specific tools: Turboscribe for reading and listening, Gliglish for speaking, and Jenni for writing. To achieve this, the Technology Acceptance Model (TAM) was employed.

To answer the research hypotheses, it can be said that the participants exhibited varied perspectives; however, overall, the AI tools demonstrated positive impacts on their behavior, perceived usefulness, and ease of use. Therefore, it can be concluded that the three AI tools are successful in developing students' receptive and productive skills. Notably, these tools have not been extensively studied by researchers, with few instances of their use in primary and secondary education settings. This study is pioneering in examining the application of these AI tools in the context of higher education with undergraduate students. In this regard, Zou et al. (2023) stressed that the rapid progress in artificial intelligence (AI) chatbot technology can be addressed to support students, especially those from Generation X and Z, who have been raised in a digital environment.

In this context, Turboscribe, a tool designed to enhance students' listening and reading skills, proved effective among the participants. Almost all participants found it useful for developing their receptive skills. They also noted that it was easy to use and positively influenced their behavior. In a similar vein, numerous scholars (Romero, 2024; Vu, 2024; Rifa, 2024; Geyer & Rosignoli, 2024; Degner, 2024; Gardner, 2024) incorporated this instrument in their academic articles via interviews. Romero (2024) pointed out that Turboscribe is an exceptionally precise and reliable application for producing transcripts, with ample endorsements validating its effectiveness. Additionally, this tool enables students to upload YouTube videos and transcribe them, allowing them to listen and read the transcription simultaneously. It also assists teachers by providing a valuable resource for beginner students who struggle to keep up with the speed of speech or have difficulty recognizing certain words, which can impact their comprehension and understanding of the intended message.

Regarding Gliglish, a tool designed to aid in learning multiple languages, it has helped participants enhance their speaking skills. This is especially important because students often lack ample opportunities to practice speaking in their language classes due to factors like limited class time, overcrowded classrooms, and a focus on lectures over interactive activities. Additionally, Nova et al. (2022) highlight psychological challenges, such as a lack of motivation to speak and insufficient feedback from teachers, as difficulties students encounter during speaking practice. In this sense, Gimadieva (2024) investigated the tool's capabilities and concluded that Gliglish is beneficial for students learning new languages. Zhvakina (2023) highlighted that Gliglish facilitates language practice by enabling users to receive feedback on their pronunciation and grammar, select practice speeds, pose questions in their native language about the material and translate words and phrases. In a similar vein, Gliglish allows users to practice spoken language skills with customized feedback in a stress-free environment, facilitated by conversational technology and virtual assistants (Ericsson & Johansson, 2023). Based on Ariawan's (2024) study, it can be concluded that English learners consider Gliglish crucial for advancing their speaking skills, such as accent, word choice, speech flow, and grammatical accuracy.

For the Jenni AI tool, the results were similarly positive, aligning with the findings for the other two tools. Jenni AI demonstrated a strong capability to enhance participants' productive skills, particularly writing. Most participants found it useful and easy to use. However, a small number of participants reported finding it useless and difficult to manipulate. This could be attributed to their challenges with using technology or their familiarity with other tools that they find easier and more effective for writing. Various case studies have demonstrated the effectiveness of Jenni.ai in English language classrooms. For instance, Hwang et al. (2024) found that students expressed high satisfaction with the personalized support and feedback from Jenni.ai. Forbes (2023) has highlighted how Jenni.ai transforms traditional classrooms into more dynamic and engaging learning environments. In fact, in the fast-moving realm of artificial intelligence, a variety of innovative tools have been introduced to assist graduate students in brainstorming project ideas and conducting their studies. While ChatGPT is widely recognized, newer and more advanced options such as Jenni AI are also available as alternatives. Research by Gültekin Talayhan et al. (2023), involving educators, demonstrated that different AI writing tools had a beneficial effect on content development by offering helpful prompts and ideas for generating and articulating thoughts. Nonetheless, the study also raised concerns that an overdependence on these tools might undermine critical thinking and individual creativity.

CONCLUSION

The purpose of this paper was to assess the effectiveness of three AI tools in enhancing the receptive and productive skills of Moroccan undergraduate students in the English departments of three universities. Using the TAM theory, the results showed that Turboscribe, Gliglish, and Jenni AI tools positively influenced students' behavior, indicating their intention to use these tools in future opportunities to improve their English skills. Additionally, the study found that these AI tools were user-friendly and beneficial for knowledge development. Future research should explore the reasons why some students view these tools as ineffective or hard to use and why they persist in preferring traditional learning methods over AI technology, despite its potential benefits in saving time, money, and effort.

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