

From Illustration to Story Telling - The Use of Microsoft Bing to Sharpen EFL Learners' Lexical Competence

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ABSTRACT

Artificial Intelligence tools have profoundly transformed language learning and teaching practices. Consequently, numerous AI tools have emerged to meet societal needs with various functions. In this regard, Microsoft Bing's Copilot distinguishes itself from competitors through its illustration and storytelling features. Although a growing number of studies have explored the effectiveness of Bing in expanding students' lexical competence globally, this study represents the first attempt to examine the impact of Bing on developing students' vocabulary skills via image creation and storytelling at the tertiary level in Iraq during the 2024-2025 academic year. Using a stratified random sampling method, 50 freshman students aged 18 to 25 from 10 departments at a private university participated in a nine-week treatment period based on the OWN IT 2 coursebook. Data were collected through a mixed-methods research design, encompassing vocabulary exams, questionnaires, and interviews. The control group received vocabulary instruction as outlined in the teacher's book, while the experimental group's sessions were enriched using Bing to teach essential words via images and stories. The results revealed that the experimental group outperformed the control group by earning higher grades on vocabulary exams, participating in lessons more willingly, retrieving words more instantly, developing better self-study habits, and demonstrating reduced language learning anxiety. These findings indicate that Bing's image creation and storytelling features are innovative in effectively capturing students' attention and enhancing their lexical competence. The study's outcomes have significant implications for English teachers seeking to implement AI-enriched vocabulary lessons and leverage the associated opportunities.

KEY WORDS: AI Tools, EFL Learners, Illustration, Lexical Competence, Microsoft Bing, Storytelling.

1. INTRODUCTION ¹

English holds an unrivaled position in many fundamental domains. For instance, approximately 60 percent of websites are in English globally; over 90 percent of business agreements are drafted in English; more than 55 percent of multinational companies use English as their primary working language; above 70 percent of academic publications are released in English; most renowned programming languages are based on English; and it is the official language of the aviation industry (Kara, 2025). Furthermore, English is the most commonly used language on social media platforms, welcoming users without language barriers (Basoz & Erten, 2019). Besides, speaking English fluently is key to gaining promotions and extra benefits in many sectors.

Similarly, strong English communication skills are essential for academic advancement at private universities. As this evidence shows, English has undeniable dominance in the global landscape.

Teaching English with technological tools has gained increasing popularity thanks to their numerous advantages. Previously, videos, podcasts, infographics, movies, and e-books were utilized extensively, but they began to lose their prominence after the advent of AI tools (Es-sarghini & Boumahdi, 2025). AI-based applications are designed to provide human-like answers to user queries. Although there is significant rivalry among AI chatbots, ChatGPT has possessed many distinguishing qualities since 2022. To name a few, it provides individualized feedback in text or audio; it creates exams

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based on difficulty level; it presents detailed statistics; and it can simulate emotion to close the gap between humans and AI chatbots as much as possible (Alshehri, 2025). In this regard, Microsoft Bing is powered by ChatGPT-4 to combine search engines with a generative AI chatbot, serving as the successor to Cortana in both free and paid versions. This chatbot can cite articles, compose poems and songs, and utilize different languages and dialects. Microsoft Bing is also widely used to interpret images and compose relevant stories using OpenAI's DALL-E at its core (Ghaemi & Boroushaki, 2025). Additionally, it can generate illustrations from text to capture users' attention with vivid and captivating visuals. These appealing features have made Bing a commonly used tool in English language learning settings, with vocabulary development being one of its most crucial applications. By using personalized formats with images and stories, Bing can enhance the process of vocabulary acquisition.

Vocabulary acquisition is the cornerstone of language learning and requires sustained attention to master gradually. In other words, it is impossible to have a complete command of English without an adequate breadth of vocabulary. Liu and Chen (2023) state that there are three stages of vocabulary learning: form, meaning, and use. These are classified as either receptive or productive skills. The former refers to recognizing and grasping a word's meaning accurately, while the latter involves using vocabulary effectively in oral and written communication (Menggo et al., 2024). Accordingly, there are two forms of word recognition processing: bottom-up and top-down. Bottom-up processing encompasses sequences including phoneme, morpheme, clause, text, and semantic dimensions, while top-down processing follows the opposite cycle.

Thanks to the rise of technological tools, vocabulary learning activities have shifted from rote memorization to more engaging tasks. For example, Kahoot, Duolingo, and Quizlet offer graded activities to learn words in context. Additionally, numerous YouTube videos and e-books teach vocabulary. In the same vein, AI tools have considerably enriched vocabulary teaching. AI chatbots like Microsoft Bing can create vocabulary tests based on given words, teach words through illustrations, and generate stories from images (Noprianto & Purnawarman, 2019). Furthermore, they allow users to change the prompt instantly to make tasks more or less challenging. It seems that vocabulary learning endeavors have been significantly enhanced by these technological advancements.

Globally, the number of studies on vocabulary expansion is very high; however, there is a scarcity of research integrating illustrated stories generated by AI chatbots. Moreover, no study has integrated the photo illustration and storytelling features of Bing in the Iraqi

context. From a pedagogical perspective, students often feel exhausted by vocabulary learning practices that rely on rote memorization and drills. Thus, more innovative methods could exponentially increase student engagement and vocabulary acquisition rates. The innovative approach of this study, which shifts learning agency to the student through technology, can be effectively employed via Bing-enriched vocabulary lessons. Students actively interpret images, listen to illustrated stories, and express their ideas while discussing essential themes, which is expected to develop their vocabulary breadth through engaging tasks.

The novelty of this research lies in integrating illustrated photos and AI-generated stories into an EFL setting at the tertiary level in Iraq, with the aim of gradually increasing students' vocabulary knowledge. Considering the abovementioned reasons, this study attempts to contribute to the existing literature by using innovative strategies to foster vocabulary learning in a welcoming atmosphere at a private university in Iraq. The research questions are as follows:

- What is the influence of Bing's illustrated storytelling feature on EFL learners' vocabulary scores?
- What are the students' perceptions of enriching vocabulary lessons with Bing?

2. LITERATURE REVIEW

The history of AI dates back to the pioneering work of John McCarthy in 1955, whose team proposed machine learning to use language, solve problems, and offer suggestions for the betterment of people's lives (Al-Amin et al., 2024). Artificial Intelligence is an umbrella term for systems designed to imitate human intelligence based on pre-defined training models. Since its inception, the AI-chatbot industry has surged, capturing global attention and providing benefits in various settings. The advent of ChatGPT in 2022 accelerated this trend, as its unprecedented popularity motivated rival companies to release their own AI products (Mohammed, 2024). Currently, chatbots like Bard, Deep Seek, Gemini, Claude, Meta AI, and Bing compete with ChatGPT for dominance. AI chatbots have become integral to many fields, including programming, media, publishing, economics, accounting, and industry.

In English language teaching, AI chatbots are widely used to tailor content to learners' needs. They can create exams, vocabulary flashcards, stories, presentations, and reading passages, and they offer enhancement by providing constructive feedback on uploaded files (Ponte, 2024). However, drawbacks have also been noted, including a robotic tone, limited answer range, security breaches, inaccurate responses, and the use of language beyond learners' comprehension (Wiesinger, 2024).

Among these tools, Microsoft's Bing distinguishes itself through its image creation feature, which can instantly generate meaningful stories from these visuals. Its capabilities are particularly recognized in English classes, where illustration and storytelling are time-consuming but crucial for boosting student motivation and engagement. The ChatGPT-enriched Bing allows educators to meet students' demand for novel information through visually stimulating images and compelling narratives. Furthermore, the effects of Bing on macro and micro-skill development have been widely studied.

For instance, Zainurrahman and Rodliyah (2024) explored its effects on Indonesian students' writing competence, finding that Bing's detailed, section-by-section feedback helped students improve their writing quality. Kovačić and Bubas (2023) reported that Croatian university students used Bing effectively as an online tutor to address fossilized errors. In Japan, Daniels (2023) found Bing to be a promising tool for scoring grammar and offering constructive feedback. A comparative study in India by Bhardwaz and Kumar (2023) ranked Bing highest in user satisfaction and engagement among high school students.

Dao's (2023) research in Vietnam highlighted Bing's potential for creating customized exams, while Abu-Haifa et al. (2023) in the USA demonstrated its utility in generating reading passages and tests for standardized exams like the GRE, SAT, TOEFL, and IELTS. Lin (2024) also in Vietnam, found Bing effective for vocabulary expansion through gamified exercises. Abdulghane and Othman (2023) noted that Saudi students boosted their self-confidence in writing and speaking by improving their vocabulary via Bing's illustrated stories. Similarly, Pakniyan et al. (2023) found that the Bing Image Creator feature not only taught vocabulary but also fostered 21st-century skills like critical thinking and civic literacy.

Conversely, some scholars have cited drawbacks. Thippanna et al. (2023) noted that Bing can sometimes provide irrelevant, inaccurate, or inappropriate responses, indicating room for improvement. Jena et al. (2025) raised concerns about ethical flaws and the potential for generating offensive content. In conclusion, while Bing offers numerous benefits for English classes, certain updates are needed to address its disadvantages.

The use of Bing as a storyteller through illustrated images is strongly supported by prominent learning theories. Paivio's (1971) Dual-Coding Theory suggests that information is processed through verbal and visual channels (Wong & Samudra, 2021). Bing's storytelling feature operationalizes this by helping learners send information to long-term memory via photo-enhanced narratives. Similarly, Sweller's (1988) Cognitive Load Theory recommends minimizing overwhelming text in favor of intuitive visual explanations to make learning

more efficient (Tatli et al., 2022). Bing converts the responsibility of memorizing text into an engaging activity by presenting vocabulary through images and stories.

Mayer's (2001) Multimedia Learning Theory emphasizes the importance of combining words and pictures for effective learning (Suwastini et al., 2021). Bing's feature set directly supports this multimodal approach. Furthermore, principles from Skinner's Behaviorism, Vygotsky's Zone of Proximal Development (ZPD), and Krashen's Input Hypothesis—such as reinforcement, repetition, and comprehensible input—can be effectively put into practice through Bing's storytelling, which provides repeated, contextualized exposure to words (Kim & Rah, 2021). It is evident that visual aids accompanied by meaningful narratives have significant potential to transform vocabulary instruction in EFL settings.

3. METHODS

3.1. Research Design

A mixed-methods research design was used to collect both qualitative and quantitative data, ensuring triangulation to compare and corroborate findings (Schlunegger et al., 2024). Quantitative data were gathered through vocabulary exams and questionnaires, while qualitative data were collected via interviews to record students' perceptions of the treatment. The principles of an explanatory sequential design were adopted to determine whether the numerical data and verbal responses converged. By integrating these approaches, the study aimed to gauge the influence of Bing's illustrations and stories on students' vocabulary competence more systematically (Takona, 2024).

3.2. Participants

A private university was chosen as the study population because it admits high-achieving students and offers English-medium instruction in technical classes. Admission is based on students' scores in local or international exams. Upon registration, students must take a proficiency exam to be placed into classes according to their levels. This exam professionally measures all macro and micro skills, with at least five different raters monitoring the results to ensure fair and final scores.

The study's subpopulation consisted of Foundation English students, who take intensive English courses during their first year while also completing courses in their respective departments. Stratified random sampling was used to select the sample from a population of 500 students. A sample of 50 students was chosen, with equal representation from each department. From 20 classes, two were selected to participate in the study as either the

control or experimental group. The participants' demographic characteristics and departments were examined during the classification process. Their ages ranged from 18 to 32, with male students (n=28) outnumbering female students (n=22). The represented departments included cybersecurity, medical analysis, pharmacy, physiotherapy, mechatronics engineering, nursing, IT, civil engineering, computer engineering, and petroleum engineering.

Following placement, instruction began using the Cambridge University Press OWN IT series. This series is renowned for providing up-to-date, engaging, versatile, and graded instruction with videos, games, unit tests, end-of-year tests, pop quizzes, and mock exams. The topics are vibrant and designed to capture teenagers' attention, covering subjects such as AI, social media, addictions, global issues, job prospects, and success stories in precise detail. The academic year lasts approximately seven months, with a 10-hour weekly schedule. Students' spoken and written English often improves considerably due to the dedication of the lecturers, the students' willingness to learn, and timely administrative support.

3.3. Instruments

Vocabulary exams, questionnaires, and semi-structured interviews were used to collect data for this study.

3.3.1. Vocabulary Exams

Two vocabulary tests were created by six EFL experts to gauge the effectiveness of the treatment through pre-test and post-test assessments. Prior to the pre-test, students' levels were determined using Cambridge Vocabulary Tests (CVT), which included sections such as fill-in-the-blank, matching, heading, summarising, inferring, and multiple-choice questions. The test items were based on common themes like art, money, health, travel, occupation, chores, and friendship. Students took the level test in a hybrid mode, reading questions on a smartboard and writing answers on answer sheets. Three raters then checked the responses against answer keys to ensure accurate and unbiased grading.

An analysis of the scores revealed no significant differences between the groups, allowing the study to proceed with homogenous groupings. Before administering the tests to the study participants, the exams were piloted with other students of a similar proficiency level to establish internal consistency. A Cronbach's Alpha coefficient of .92 was obtained, which was deemed adequate to meet reliability criteria. The pre-test and post-test vocabulary exams were subsequently composed of various question types, focusing on fundamental words from each unit. The questions were randomly selected from the question pool in OWN IT 2; further details are provided in Table 1.

Table (1)
Target Vocabulary to Teach Through Storytelling

Unit	Words
4	borrow, cost, lend, owe, charity shop, paramedic, surgeon, lifeguard, carer, permit, independent, common, decision, operation, rescue
5	shelves, ceiling, shell, entrance, ordinary, author, chores, ironing, loading the dishwasher, unusual, skatepark, curtain, convinced, awesome, fit
6	bitten, stung, bruise, burn, cut, scratch, slip, sprain, trip over, burn, venom, currents, struggle, sink, hidden
7	app, download, upload, chip, emoji, nomophobia, software, transform, science fiction, update, industry, hyperloop, get out of, jetpacks, lift
8	athlete, composer, surgeon, scientist, inventor, determination, intelligence, talent, strength, creativity, awards, entrepreneur, keep up with, show off, work out
9	reggae, hip-hop, classical, thrilled, synthesizer, gifted, violinist, unique, discount, tap dancing, back stage, fancy, ballet, pity, mind

As shown in Table 1, 15 words from various themes, ranging from injuries to music genres, were highlighted in each unit. A selection of these words was chosen randomly to create the pre-test and post-test exams. The exam committee considered the students' proficiency levels and designed the questions to be appropriate for assessment. After the initial questions were formulated, they were cross-checked by colleagues to identify potential errors and to offer suggestions for improving their clarity and quality. These insightful recommendations were incorporated, and the items were modified accordingly, thereby ensuring face and content validity. In the subsequent phase, students were guided to successfully grasp the words and answer the questions accurately.

3.3.2. Questionnaires

A questionnaire comprising six items was integrated into the study to gain deeper insights into learners' perceptions of using Bing as an illustrator and storyteller. The items were finalized based on the AI-driven digital storytelling scale by Belda and Goddard (2024). The prompts were designed to pinpoint the role of Bing in teaching essential vocabulary through images and engaging stories. The questionnaire items were reviewed by EFL experts to ensure the questions were appropriate and formatted for easy comprehension. Additionally, the questionnaire was piloted with a separate group of students to check for clarity, relevance, accuracy, and coherence. Once these validation procedures were completed, the researchers administered the

questionnaire to the study participants according to the predetermined schedule.

Table (2)

Participants' Perceptions on Bing-enriched Education

Perceptions on Bing as an Illustrator and Storyteller							
Pre-test				Post-test			
Control		Experimental		Control		Experimental	
M	SD	M	SD	M	SD	M	SD
1. Bing is useful for teaching vocabulary through illustration.							
2.80	1.30	2.98	1.45	2.98	1.42	4.35	.900
2. Bing expands vocabulary through storytelling.							
2.82	1.40	2.85	1.33	2.8	1.46	4.41	.962
3. Bing facilitates the retrieval of words once needed.							
2.70	1.32	2.62	1.20	2.77	1.34	4.36	1.08
4. Bing can inspire learners to develop self-study habits with innovation.							
2.94	1.38	3.03	1.38	3.19	1.38	4.38	.845
5. Bing has the untapped potential to transform vocabulary lessons.							
2.77	1.09	2.70	1.34	3.09	1.49	4.15	.760
6. Bing reduces learners' language learning anxiety.							
2.83	1.34	2.98	1.44	2.97	1.40	4.33	.901

Learners' perceptions were measured to probe the effect of Bing as an illustrator and storyteller on increasing vocabulary breadth; the results are summarized in Table 2. The questionnaire addressed areas such as illustration, storytelling, word retention, self-study habits, transformation of vocabulary sessions, and relief from language learning anxiety. The questionnaire was administered to learners at two points in time to track changes in their perceptions from the pre-test to the post-test.

When Item 1 was examined, it was observed that the control group's perceptions about using Bing as an illustrator to teach new words did not change considerably, as their mean scores only shifted from 2.80 to 2.98. Conversely, the experimental group's perceptions shifted from hesitant to positive, with mean scores rising from 2.98 to 4.35. Item 2 showed that control group students did not report satisfactory results from having illustrated photos converted into stories by Bing, as their mean scores did not change substantially. In contrast, the experimental group observed stark improvement, reflected in a mean score increase from 2.85 to 4.41.

Analysis of Item 3 revealed that control group students did not improve their ability to recall words as much as their peers in the experimental group, with only a slight increase in their mean scores. In contrast, the experimental group's mean score increased by 1.74 points. Item 4, designed to gauge the effectiveness of Bing in developing self-study habits, showed that the experimental group yielded far better mean scores than the control group. The control group's mean scores changed from 2.94 to 3.19, while the experimental group's scores rose from 3.03 to 4.38.

Item 5 was included to determine whether Bing offered opportunities to transform vocabulary lessons. The results revealed that the experimental group viewed

Bing favourably as an innovative tool, whereas the control group expressed doubts about its effectiveness in positively changing vocabulary instruction. The final item concerned the role of Bing in reducing language learning anxiety. The data showed that the experimental group appreciated Bing's contributions to learning vocabulary in a stress-free format, while the control group did not perceive it as an effective anxiety-reducer.

Considering all items, it can be concluded that sustained exposure to Bing-enriched instruction is promising in many dimensions. In contrast, limited workshops or monotonous vocabulary lessons are far from satisfactory in the eyes of the EFL learners.

The data collection process for this study spanned nine weeks to systematically assess the impact of Bing on students' vocabulary breadth, utilising the aforementioned instruments. The study received necessary approval from the university's scientific committee in accordance with ethical standards. The committee monitored the study and provided suggestions for improvement. An extensive workshop was held to inform the selected participants about the study's phases, enabling them to become acquainted with the two instructional methods. Thus, all students had some understanding of the Bing-enriched instruction aimed at empowering them with enhanced vocabulary knowledge. Subsequently, they signed consent forms to participate voluntarily. Certain students who declined to participate, citing valid excuses, were substituted with new members.

3.3.3. Interviews

The interview process was rigorous to ensure quality. The researchers composed the initial questions, which then underwent a vetting process by six professionals with over 10 years of experience in English language teaching. They provided feedback on ambiguous expressions. After this preliminary evaluation, the final version of the interview was established. Furthermore, the interview questions were piloted with other students to identify potential hindrances in advance. These techniques enabled the researcher to mitigate potential issues and ensure efficiency at each stage.

3.3.4. Procedure

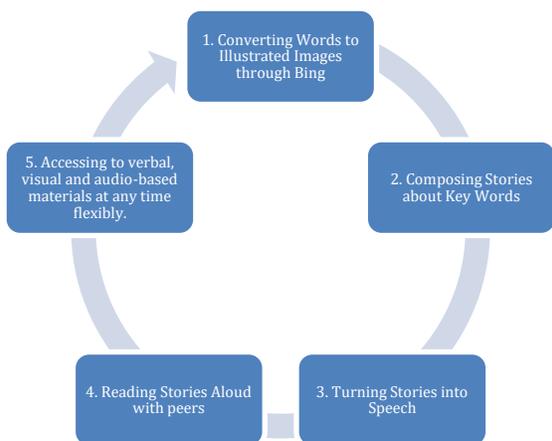
The study's stages had both common and divergent elements between the two groups. Common points included participating in the initial workshop, attending Foundation English classes regularly, and using the OWN IT series. However, the method of learning vocabulary and taking unit tests differed greatly between the groups.

The control group learned the meaning of words through traditional book-based activities, such as matching and fill-in-the-blank exercises. In contrast, the experimental group's vocabulary lessons were enriched

using Bing's AI tools to illustrate words and form memorable stories. Instructors selected key words, used Bing to create images and generate an appealing story for each, and then presented these materials when introducing the new vocabulary.

The learners were provided with the images and stories in PowerPoint format to review in their free time, giving them the flexibility to catch up if they faced difficulties or missed lessons. The instructors also used free text-to-speech software to convert the stories into audio. Furthermore, students told the stories to their peers by visiting other groups in the class. They had flexible access to all verbal, visual, and audio-based materials at any time to enrich their learning. This approach activated students' auditory, visual, and kinesthetic learning channels. Instructors checked comprehension by asking students to tell details or summarize the story concisely. Two units were covered in a tri-weekly cycle, resulting in six units being covered during the study. The sequence of the study is given in Figure 1.

Figure (1)
Sequence of the Study



3.4 Data Analysis

Descriptive statistics were adopted to extract quantitative data from the vocabulary tests and questionnaires. SPSS 28 was employed to measure the differences between the pre-test and post-test vocabulary exams using an independent samples t-test. Likewise, SPSS 28 was used to determine the students' perceptions of Bing-enriched vocabulary instruction by considering the mean and standard deviation values. Conversely, a thematic analysis was utilized to analyze the qualitative data obtained from the interview.

Thematic analysis is a practical qualitative data analysis method that organizes data into specific themes and employs an inductive approach (Vears & Gillam,

2022). The content analysis process comprises four stages: meticulous examination of transcribed data, code assignment, data categorization, and transformation of categories into themes. These themes provide significant insights while tackling research questions from a comprehensive viewpoint.

Interviews were also run by sticking to the scientific and ethical procedures of interview analysis. To name a few, saturation, member evaluations, and analytical memo composition were employed to guarantee the reliability and validity of the coding procedure (Braun & Clarke, 2021). The inquiry began with compiling detailed analytical reports in an e-file through NVivo. During the coding process, the coder double-checked if certain dimensions were incorporated. At the point of saturation, all programmers who were responsible for conducting content analysis made their contributions and finalised the files after getting some feedback from the participants. Measures were implemented to eliminate the researchers' bias by removing them from the coding process.

4. FINDINGS

4.1 Quantitative Analysis

Vocabulary exams and questionnaires comprised the backbones of quantitative data regarding pre-test and post-test. They were analysed using descriptive analysis principles, so statistical measurements were gauged to appropriately address the research questions with quantitative data in Table 3.

Table (3)
Comparison of Vocabulary Exams

Variables	Groups	N	Mean	SD	t	df	p
Pre-test	Cont	25	51.56	13.82			
Pre-test	Exp	25	51.89	13.87	.206	40	.836
Post-test	Cont	25	55.35	15.20			
Post-test	Exp	25	76	10.77	.557	40	.001

The numerical data in Table -3 indicates that students' pre-test results were roughly the same. The p-value of 0.836 exceeds 0.05, indicating a lack of significance. Conversely, a substantial increase was observed in post-test scores, with a p-value of .001, which is below 0.05. To put it simply, the control group students improved their scores by less than four points, whereas the experimental group experienced a 25-point improvement thanks to the using Bing as an illustrator and storyteller.

4.2 Interviews

Vocabulary exams and questionnaires were triangulated to cross-check data to determine whether they complemented each other harmoniously. Thus, the study's effectiveness was tested once more from another

angle. The interview prompts were designed to classify the pros and cons of the Bing-enriched vocabulary lessons and the participants' inclinations to join such studies again in the future.

➤ What is your perception about developing lexical competence through Bing's illustration and storytelling features?

➤ Are you in favour of joining Bing-enriched vocabulary sessions in the future?

Table (4)

Positive Themes to Reflect Learners' Thoughts on Bing as a Vocabulary Booster

Themes	f	%
Novel	32	80
Flexible	37	93
Quick	40	100
Versatile	36	90
Motivational	30	75

When Table 4 was examined, it was crystal clear that they highlighted Bing's features as a vocabulary booster because they considered it novel, flexible, instant, versatile, and motivational. To delve into themes, 32 (80 %) participants confessed that Bing's AI enhancements contributed to its novelty because all responses were unique, meaning users could not find a similar answer in any other AI tool. Such knowledge-seeking attempts increased the frequency of students taking advantage of it.

(2) "Vocabulary lessons were dull for me in the past because we had to trust our memories a lot by just reading the texts or looking at photos for a second. We could not grasp the meaning in a limited time. However, Bing's feature to create images and convert them into meaningful contexts in the form of a story sharpened my memory to use it practically."

Additionally, 37 (93%) participants appreciated the flexible form of Bing thanks to the nature of giving prompts many times. Users could edit commands according to their necessities at any time, so they enjoyed pushing themselves to their limits and realising their educational goals.

(6) "Bing allowed us to ask queries at any time in a limitless way. Simply put, we could change our questions, images and stories with one click. Thus, we could customise the illustrated versions and related threads."

Subsequently, receiving answers to the queries instantly increased all students' willingness to use it efficiently. In contrast to other AI tools, Bing allows users to receive their responses quickly.

(8) "The response time of Bing was short, so we were captivated to use it more frequently. For instance, it could turn essential words into images within seconds. Afterwards, turning it into a meaningful story took not

more than a minute. Such instant replies substantially raised Bing's reputation in our circle of friends."

Besides, 36 (90%) of the participants found Bing's ability to create answers in a versatile form intriguing. They stated that learning words in the form of an image, story, poem, riddle, or song kept them alert and well-informed.

(11) "When we sent the queries to figure out the meaning of the words, Bing offered many opportunities in various forms. Moreover, we could abridge or expand it according to our levels, so we did not have difficulty knowing words by heart in subsequent attempts."

Furthermore, Bing's feature to pay a compliment and ease your tasks increased 30 (75 %) students' motivation. They pointed out that getting positive feedback and compliments accelerated their learning process because they used it more frequently to close the gaps with their peers and be ahead of others in their classes.

(14) "Bing came up with a motivational remark whenever my motivation faded, and I was hopeless. In addition, it customized the responses to fit my learning style and capacity."

However, some themes emerged to emphasize some weaknesses of Bing as an illustrator and storyteller in Table 5.

Table (5)

Negative Themes to Reflect Learners' Thoughts on Bing as a Vocabulary Booster

Themes	f	%
Immense	4	10
Inaccurate	2	5
Technology Addiction	6	15

Apart from positive reflections of Bing, some weaknesses were articulated by a few participants. To name a few, 4 (10 %) participants postulated that their load increased immensely when they had to learn a basic word with a relatively long story. Afterwards, 2 (5 %) participants claimed that some photos and stories were misleading, so they could not get the meaning accurately. The last weakness emphasized in the interview by 6 (15 %) participants was regarding technology addiction. They pointed out that the more they used Bing to learn vocabulary, the more they became addicted to it.

(17) I was satisfied with Bing's excellent service in expanding our word power. However, the necessity to read a large number of stories, being exposed to inaccurate data, and being addicted to technology reduced its value to me. I wanted to learn all the words through illustrations and stories in other courses, but it was impossible for some reasons. Thus, I faced some challenges to tackle."

5. DISCUSSION

This study investigated whether Bing's innovative illustration and storytelling features could increase EFL learners' lexical competence. The quantitative results demonstrated that these services significantly improved students' performance on vocabulary exams. The experimental group, which received Bing-enriched instruction, achieved much higher grades than the control group, which relied solely on traditional coursebook activities. This finding suggests that AI-enriched vocabulary instruction can positively transform teaching practices, aligning with the studies of Jena et al. (2025) and Wiesinger (2024), who argue that AI allows for instant customization of difficulty, elaboration, and test formats. The ability to conveniently meet the needs of learners and teachers captures their attention, thereby increasing AI's popularity in language education.

The findings also revealed that converting text into images and audio narratives intrigued learners by activating multiple learning channels. Kruk and Zawodniak (2019) state that engaging students through text, visuals, and audio breaks the monotony and boosts engagement, which commonly leads to improved performance. In contrast, the unsatisfactory results in the control group suggest that traditional, teacher-centred lessons that activate only one learning channel may not be captivating for most learners (Abdulrahman et al., 2022).

Qualitative data from questionnaires and interviews provided significant complementary insights. Participants reported retrieving words more rapidly after instruction with Bing's features, a cycle that trained them to be lifelong learners. This supports Thippanna et al. (2023), who concluded that AI-integrated tools transform lessons by providing ample exposure through multi-sensory activities. Participants also reported developing self-study habits, a finding consistent with Zainurrahman and Rodliyah (2024), who contend that word repetition through various stimuli enhances vocabulary acquisition.

Furthermore, participants found the technology-enhanced lessons more engaging, resonating with Alshehri (2025), who posited that AI-integrated instruction fosters continuous concentration. They also underscored the importance of Bing in lowering language learning anxiety, a finding consistent with Celik et al. (2025), who revealed that AI tools can reduce stress by appealing to diverse learning styles.

When triangulated, the data were largely consistent. Most students preferred Bing-enriched instruction for its novelty, flexibility, speed, and motivational quality, aligning with Pakniany et al. (2023). However, a limited number of students noted drawbacks, including feeling overwhelmed, receiving inaccurate responses, and the risk of increased technology addiction. This is in line with

Ponte's (2024) study, which highlighted the difficulty of choosing the best response from limitless options, the potential for false claims, and the inclination toward addiction as negative aspects of AI tools.

6. CONCLUSION

This research examined the effectiveness of Bing as an illustrator and storyteller in expanding university students' lexical competence using a mixed-methods design. The findings consistently indicated that Bing substantially boosts students' vocabulary performance when accompanied by AI-generated images and stories. Specifically, students significantly improved their exam grades, developed self-study habits, participated more ambitiously, stimulated critical thinking skills, and reduced their language learning anxiety. In short, Bing was effective in raising both intrinsic and extrinsic motivation. Moreover, Bing's AI-enriched, knowledge-sharing approach fostered learning by allowing students to benefit from a communicative approach, flexible learning, limitless information, and instant editing. However, some weaknesses were noted, such as a propensity for error and occasional inaccuracies.

7. IMPLICATIONS AND LIMITATIONS

7.1. Pedagogical Implications

The findings underscore the significance of AI-integrated vocabulary sessions. Institutions should encourage faculties to incorporate the distinguishing features of AI tools into EFL curricula. Administrators could hold intensive workshops to maximize positive outcomes and mitigate drawbacks through collaborative efforts. Well-established seminars for students and parents could raise awareness and promote the active use of AI tools to increase success rates. Furthermore, since free versions of AI tools have serious limitations, urging stakeholders to sign contracts with leading AI companies could significantly enhance educational benefits.

7.2. Limitations and Future Research

This study has several limitations. First, it involved only freshman university students; future research could include sophomore, junior, and senior students. Second, only EFL students were examined; studies could be enlarged to include ESL and EAP learners. Third, the study focused solely on Microsoft Bing; future work could extend to other tools like Gemini, Deep Seek, and ChatGPT. Fourth, the study measured only vocabulary enhancement; other macro and micro skills could be investigated. Finally, only B2-level coursebooks were used; research could be enriched by incorporating materials at other proficiency levels.

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