Exploring the Impact of AI on English Learning of Business English Juniors at Nguyen Tat Thanh University

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ABSTRACT: This study investigates how artificial intelligence (AI) influences the English-learning processes of third-year Business English majors at Nguyen Tat Thanh University (NTTU). A mixed-methods design was employed, comprising an online survey (n = 34) and semi-structured interviews (n = 15). Quantitative data were analyzed using SPSS 26, yielding Cronbach's α = .984, and qualitative responses underwent thematic analysis. Students reported that AI tools (e.g., ChatGPT, Grammarly) enhanced personalized learning (44.1 %), provided instant feedback (17.6 %), and increased motivation (17.6 %). Interview themes highlighted efficiency gains, richer access to specialized Business English materials, and greater communicative confidence. These findings demonstrate AI's pedagogical value in Business English instruction and suggest that integrating AI-powered platforms can optimize curriculum design. Future research should compare AI-mediated and traditional teaching to assess long-term learning outcomes.

KEYWORDS: Artificial intelligence, AI-powered language learning, Business English; Mixed-methods study, Student perceptions.

I. INTRODUCTION

Over the past decade, technological innovations have transformed educational practices worldwide, yet the advent of artificial intelligence (AI) represents a particularly significant advance in how learners interact with digital tools (Xie, Chu, Hwang, & Wang, 2019). AI—defined as systems capable of performing tasks that typically require human intelligence—enables rapid data processing, adaptive feedback, and continual knowledge updating. During the COVID-19 pandemic, AI applications proliferated in education to bridge disruptions to face-to-face instruction, especially in Vietnam's EFL (English as a Foreign Language) sector (Chu, Hwang, Tu, & Yang, 2022). As globalization intensifies demand for specialized English skills, Business English learners stand to benefit uniquely from AI-mediated resources such as ChatGPT, automated pronunciation coaches, and real-time writing assistants.

Although numerous studies have documented AI's general benefits and limitations in language learning—ranging from increased learner autonomy to concerns about academic integrity (Crompton & Burke, 2023; Law, 2024)—little research has focused on Business English majors at the tertiary level. Existing literature predominantly examines broad EFL cohorts, leaving a gap regarding how AI tools support business-oriented communication competencies, professional vocabulary acquisition, and genre-specific writing skills. Addressing this gap is crucial, as Business English curricula must align technological affordances with the distinct needs of future professionals in international trade, finance, and management contexts.

This study investigates third-year Business English students at Nguyen Tat Thanh University (NTTU) to understand (1) the factors motivating their adoption of AI technologies for language study and (2) the perceived impact of these tools—such as ChatGPT, adaptive learning apps, and instant feedback systems—on their learning progress. By employing a mixed-methods design (online survey, n = 34; semi-structured interviews, n = 15), we aim to elucidate learners' attitudes toward AI integration and offer evidence-based recommendations for AI-enhanced Business English pedagogy.

Research Questions:

1. What factors influence NTTU Business English students' decisions to use AI technologies in their language learning?
2. How do AI tools (e.g., ChatGPT, real-time feedback applications) affect students' mastery of Business English skills?

II. LITERATURE REVIEW

1. Understanding AI: Shaping Our Daily Lives

Artificial Intelligence (AI) encompasses computational systems designed to emulate human cognitive functions—such as perception, reasoning, and learning—through techniques like machine learning, deep learning, and reinforcement learning (Russell & Norvig, 2021). Everyday applications of AI now permeate our routines via virtual assistants (e.g., Siri, Alexa, Google Assistant), which interpret voice or text inputs to retrieve information and automate tasks. Beyond consumer devices, AI has achieved milestone successes in specialized domains: in 2016, Google DeepMind's AlphaGo defeated world champion Go player Lee Sedol, demonstrating AI's ability to master complex strategic reasoning (Silver et al., 2016). Today, corporations such as Meta, Tesla, and Amazon harness AI for functions ranging from autonomous driving systems to real-time fraud detection, while scientific disciplines like astronomy rely on AI for modeling cosmic phenomena and classifying astronomical data (Barrett et al., 2021). Collectively, these advances underscore AI's dual role in enhancing everyday convenience and driving breakthroughs in high-specialty fields.

2. Artificial Intelligence in Education (AIEd)

The integration of AI into educational contexts—commonly referred to as AIEd—has accelerated in recent years, with market analyses projecting a 43 % increase in AIEd adoption from 2018 to 2022 (Becker et al., 2018). The 2019 Horizon Report identified AI as a transformative force likely to reshape teaching and learning paradigms (Johnson et al., 2019). AI-driven tools in education include Intelligent Tutoring Systems that adapt instruction to individual learner progress, chatbots providing on-demand academic support, automated assessment platforms delivering instant feedback, and virtual learning environments facilitating immersive experiences (Dede, 2009; Shermis & Hammer, 2013). Initially, such systems focused on aiding instructors with curriculum design and administrative tasks; however, contemporary AI applications—from ChatGPT's 180 million+ users (SEO.ai, 2024) to IBM Watson Education—now directly empower students by offering personalized learning pathways and real-time guidance.

3. Language Learning with AI

In second-language acquisition, AI-mediated platforms have become integral to learner success. Popular applications like Duolingo (74 million active users; Duolingo Inc., 2023), Babbel, ELSA Speak, and Grammarly leverage natural-language processing algorithms to customize vocabulary drills, provide automated pronunciation feedback, and perform real-time grammar checks (Attali & Burstein, 2006; Loewen, Isbell, & Spiers, 2020). Empirical studies reveal that AI chatbots create low-anxiety environments for oral practice, thereby improving speaking confidence, while adaptive exercises enable learners to focus on their individual weaknesses (Du, 2024; Ou, Stöhr, & Malmström, 2024). By furnishing detailed analytics, these platforms further support learners' self-regulated study and inform instructors' pedagogical decisions.

4. Master Business English: The Key to Global Communication

Business English—an English for Specific Purposes (ESP) genre—requires proficiency in domain-specific terminology, genre conventions, and professional communication strategies (Basturkmen, 2010). As of 2021, over 65 countries designate English as an official language, and industries such as finance, information technology, and international trade rely on English to standardize procedures and facilitate global collaboration (British Council, 2021). Research in multinational corporations demonstrates that English fluency enhances employability and career advancement, prompting organizations to invest in ongoing language development initiatives (Akar, 2002; Ojanperä, 2014). These findings underscore the necessity of targeted Business English instruction at the university level, particularly in contexts preparing students for international professional environments.

5. AI in Education: Benefits and Drawbacks

AI offers numerous benefits in educational settings, notably personalized learning trajectories that adapt to students' performance data, rapid feedback mechanisms that accelerate skill acquisition, and ubiquitous access via mobile applications (Xie, Chu, Hwang, & Wang, 2019; Keslar, 2018). Moreover, AI's data-analytics capabilities enable educators to tailor curricula and interventions based on real-time insights into learner behavior (Baker & Inventado, 2014).

Despite these advantages, AIEd poses challenges. Overreliance on AI may reduce meaningful human interaction, undermining collaborative learning opportunities (Khanzode & Sarode, 2020). The ease of obtaining AI-generated solutions can also dampen students' critical-thinking and problem-solving skills (Abrami et al., 2015). Additionally, the capacity of AI tools to produce original

text raises concerns about academic integrity, as learners might misuse generated content and compromise assessment validity (Peres, 2023). Addressing these drawbacks is essential for the responsible integration of AI into Business English pedagogy.

III. RESEARCH METHODOLOGY

The current study wanted to explore the positive effects of AI on business English majors. In addition, the purpose is also other opportunities that previous studies have not mentioned in the context of Nguyen Tat Thanh University. To achieve this goal, I decided to use both quantitative and qualitative methods to collect data and finalize the report.

For the quantitative method, we used two main questionnaires to assess the level of agreement about the positive effects of AI in business English education environments. Additionally, we used qualitative methods through interviews to collect information and opinions directly from students who use AI in their learning process.

1. Research Participants

The subjects of this study are third-year students majoring in Business English at NTTU, District 12 campus, particularly those enrolled in courses related to marketing management and business communication. These individuals were selected because they meet three criteria: they have used AI-related English learning programs (such as Duolingo, Rosetta Stone...), AI chatbots (such as ChatGPT, Bing...), and real-time feedback systems (such as Grammarly, Elsa Speak...) to study and improve their skills. The survey will be conducted with 34 students who were pre-identified through a prior small survey to assess their suitability for the research methods outlined.

2. Questionnaire

The survey questionnaire is divided into two main parts. The first part aims to confirm whether the research subjects meet the requirements, and the second part aims to evaluate students' attitudes towards the opportunities and challenges of AI after a period of using AI for language learning. Overall, this questionnaire aims to collect multidimensional information from various individuals to better understand the opportunities and challenges of applying AI to English learning and to discuss its impact on students.

Specifically, the first part includes questions about the extent, methods, and reasons for using AI in learning English. Meanwhile, the second part presents the benefits of AI for students to evaluate their suitability. This section uses a Likert scale format from 'strongly disagree,' 'disagree,' 'neutral,' 'agree', 'strongly agree' to clarify the level of agreement among students.

After collecting the survey results, these results will be aggregated and analyzed using SPSS software to provide an overview of the answers.

3. Interviews

After the survey is completed, we will continue to gather additional data through brief interviews with students. This part includes two main questions, and we use a semi-structured interview method for this purpose because it helps clarify issues in an organized manner, facilitating quicker and easier comparison of responses.

Specifically, after obtaining the initial survey results, we identified the factor that most influences students' choice of learning tools and then asked questions to clarify that factor. The interview questions will include two main questions, and I will select 15 students from the previously identified group to answer the interview questions via Google Forms. The interviews will be conducted in Vietnamese to avoid confusion and missing information. After collecting the responses from interview participants, the thematic analysis will be used to provide a clearer analysis. The purpose of these interviews is to provide a deeper assessment of the impact of artificial intelligence on Business English students.

4. Data Collection and Analysis

The data collection process involves surveying third-year Business English students at Nguyen Tat Thanh University. These surveys gather information related to students' opinions and experiences with AI language learning platforms, as well as their perceptions of AI's effectiveness in improving language skills. Additionally, qualitative data is collected through more in-depth questions, allowing interview participants to provide detailed answers about the experiences they feel have influenced their English learning outcomes.

After collecting the data, an analysis is conducted to identify the positive impacts AI has on students and the correlations within the questionnaire. Quantitative data from the survey questions is analyzed using SPSS software to clarify percentages and averages.

Qualitative data from interview responses is grouped into smaller categories with similar answers, from which conclusions are drawn to answer the research questions.

5. RELIABILITY AND VALIDITY OF THE METHODOLOGY

5.1. Reliability

To ensure the reliability of the survey and interview questions, the survey questions are arranged in a clear and logical sequence. First, general and simple questions are asked to make the participants comfortable and to gather general data to determine if they are suitable for the study. Then, the questions delve into the necessary research factors to obtain more orderly research results. The language used for the interviews is clear and easy to understand, providing simple answer instructions, and the questions are concise to ensure that participants understand and answer accurately based on their experiences. Using Google Forms as an interview support tool ensures that the answers are recorded in the most detailed and clear manner.

5.2. Validity

The validity of this study is ensured through the following methods. First, Content Validity: the content of the questionnaire and interview is based on reputable research results from articles on the impacts of AI in recent years, such as reports published in scientific journals and research reports by experts in the field of education. Second, Construct Validity measures the accuracy of AI's impacts through the questionnaire and interviews, including impacts such as enhancing students' skills, helping students learn English more effectively, and motivating them to study English. Additionally, the questions in the questionnaire will be analyzed for compatibility using SPSS software with Cronbach's Alpha method.

6. LIMITATIONS OF THE RESEARCH METHODOLOGY

This research methodology has clear limitations, such as a small sample size, thus the generalizability of this study is quite low. It only generalizes to the research subjects, which are third-year students studying BES at NTTU, so when applying the results to other subjects, careful consideration is needed. Moreover, qualitative research always has a certain degree of subjectivity in the responses, so compiling and analyzing these responses will result in more objective outcomes.

IV. RESEARCH RESULTS

1. The analysis of survey results

1.1. Rates and factors affecting the use of AI in learning.
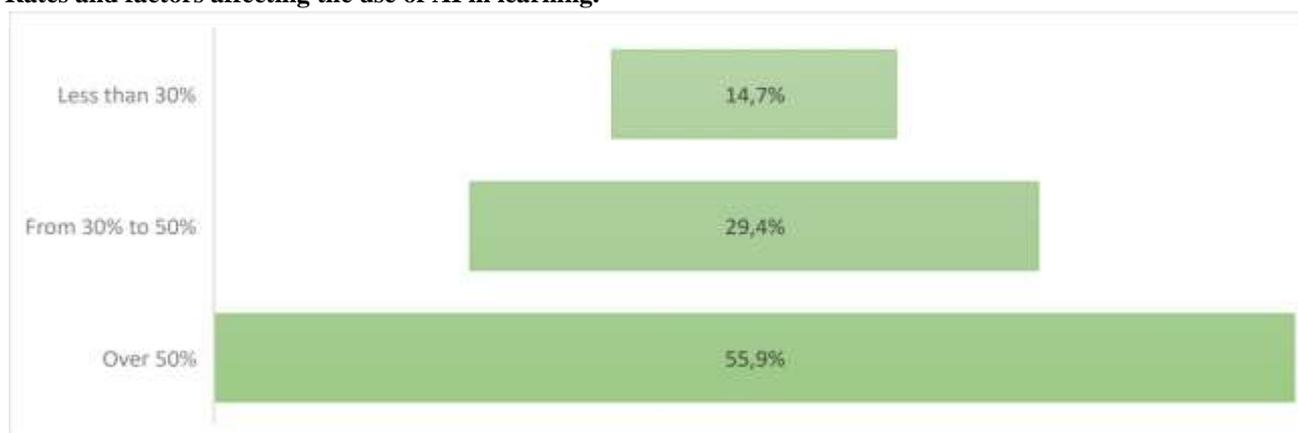

Figure 1: Percentage of AI was used in the learning process.

After surveying 34 different individuals, the results showed that 100% of students used AI to learn specialized subjects. Additionally, the survey indicated that the rate of students using AI was 100%. Among the participants, nearly 60% used AI for more than 50% of their learning process. Conversely, the proportion of AI users who used it for less than 30% of their learning process accounted for a small percentage of less than 14%. Finally, those who used AI for 30% to 50% of their learning process accounted for 29.4%.
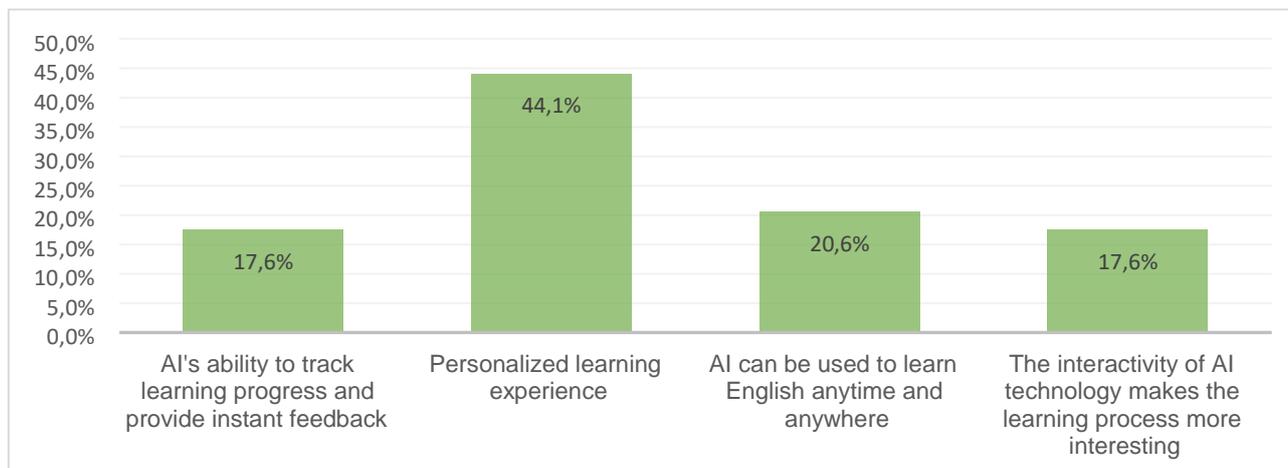
Figure 2: The most important factors for student's decision to use AI as a Language learning tool.

As we saw in the chart, the Personal Learning Experience factor is considered the most important because it was agreed upon by 44.1% of survey participants (more than the total number of people selected to use it). AI for AI Capabilities Track learning progress and provide instant feedback (17.6%) and the interactivity of AI technology enhances the learning experience (17.6%)). Meanwhile, AI that can be used to learn English anytime anywhere uses more than 1/5 because of the convenience of this experience.

1.2. The analysis of the positive impact on students

Table 3: Results of correlation analysis of the survey questionnaire

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0,984	0,984	7

Table 4: Results of correlation analysis for each question in the survey questionnaire

Inter-Item Correlation Matrix							
	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Q1	1,000	0,889	0,886	0,874	0,889	0,857	0,921
Q2	0,889	1,000	0,866	0,890	0,932	0,870	0,916
Q3	0,886	0,866	1,000	0,870	0,906	0,792	0,943
Q4	0,874	0,890	0,870	1,000	0,942	0,904	0,950
Q5	0,889	0,932	0,906	0,942	1,000	0,899	0,942
Q6	,857	,870	,792	,904	,899	1,000	,882
Q7	,921	,916	,943	,950	,942	,882	1,000

The reliability of the questionnaire is clearly demonstrated through Table 3 and Table 4, with values consistently falling within the range of 0.8 to 0.9, which is considered stable for the given questionnaire. While the reliability of the 6th question is lower than the remaining questions, it does not significantly impact the overall reliability of the test. Identifying this set of beliefs ensures that the research questions are precise and related, creating a logical system of questions.

Table 5: Student agreement rate on the negative impacts of AI

Items \ Evaluation	Strongly disagree → Disagree → Neutral → Agree → Strongly agree				
	1	2	3	4	5
Q1: Using AI can enhance interaction and feedback in the learning process.	8,80%	2,90%	5,90%	44,10%	38,20%
Q2: AI technology can create more innovative and diverse learning media.	8,80%	0,00%	5,90%	47,10%	38,20%
Q3: Support from AI-based English learning applications helps reduce pressure and anxiety when studying for students.	8,80%	2,90%	11,80%	47,10%	29,40%
Q4: Using AI technology can open the door for adaptation and flexibility in teaching methods.	8,80%	0,00%	2,90%	55,90%	32,40%
Q5: AI can provide 24/7 learning facilities, facilitating flexible learning and self-study.	8,80%	2,90%	2,90%	50,00%	35,30%
Q6: Using AI can create new and exciting learning experiences for students.	8,80%	0,00%	5,90%	44,10%	41,20%
Q7: Helping to personalize the learning support process.	8,80%	0,00%	5,90%	50,00%	35,30%

This table presents students' assessments of the benefits that AI brings to the learning process. Overall, the results are quite positive when opinions agree with more than 75% for each benefit mentioned. More specifically, questions Q2, Q4, Q6, and Q7 have 0% disagreement, while the remaining questions have 2.9%, equivalent to 1 person disagreeing. Additionally, the opinions that

completely disagree are extremely uniform but only account for 8.8%. Disagreeing opinions only account for about 8.8% to 11.7%. Although these opinions have an impact on the overall results, they are not significant.

Table 6: The table provides the mean and standard deviation

Descriptive Statistics			
Questionnaires	Range	Mean	Std. Deviation
Q1: Using AI can enhance interaction and feedback in the learning process.	4,00	4,0000	1,18065
Q2: AI technology can create more innovative and diverse learning media.	4,00	4,0588	1,12657
Q3: Support from AI-based English learning applications helps reduce pressure and anxiety when studying for students.	4,00	3,8529	1,15817
Q4: Using AI technology can open the door for adaptation and flexibility in teaching methods.	4,00	4,0294	1,08670
Q5: AI can provide 24/7 learning facilities, facilitating flexible learning and self-study.	4,00	4,0000	1,15470
Q6: Using AI can create new and exciting learning experiences for students.	4,00	4,0882	1,13798
Q7: Helping to personalize the learning support process.	4,00	4,0294	1,11424

To further explore the consensus on the benefits that AI brings, we evaluated the mean and standard deviation (Std. Deviation) of the survey results. Through this table, it becomes apparent that the proportion of people agreeing with these opinions is more than 4 on a scale of 1 to 5, which is quite high. This clearly indicates that the majority of individuals agree with the positive effects of AI.

However, the standard deviation in survey questions is considered high because Std. Deviation > 1.0. This shows that although the agreement rate in those parts is high, it is not uniform. This means that while the majority of people agree with those benefits, there are also a few who express doubts about these benefits.

2. The analysis of interviews

2.1. Interview results regarding the impact of personalization from AI

To analyze the interview results more clearly, the responses were analyzed into 3 main groups based on each individual's experience:

Group 1.1 (G1.1): Positive impact on learning efficiency

Group 1.2 (G1.2): Support to raise awareness and interest in their learning process

Group 1.3 (G1.3): Supports motivation and improvement in the learning process

Table 7: Evaluating the overall results of the interview

Main impact	Students (S) had similar answers	Percentage
G1.1	1, 6, 8, 13	≈ 26.67%
G1.2	2, 3, 5, 7, 9, 12, 15	≈ 46.67%
G1.3	4, 10, 11, 14	≈ 26.67%

In group 1, they emphasized that personalized learning helps them find content that matches their interests and learning goals, thereby improving learning efficiency.

S1: "Personalized experience helps me find learning content that suits my interests and learning goals, thereby enhancing learning efficiency."

S6: "Personalized experience helps me make more effective use of my study time, focusing on the areas of knowledge that need the most improvement."

S8: "I feel like the personalized experience helps me increase my confidence when learning

English, because I know that it is customized specifically for my needs."

S13: "I feel that the personalized experience helps me find new approaches in learning English, thereby developing diversity in my learning methods."

**In group 2, they emphasized that personalized learning helps them find content that matches their interests and learning goals, thereby improving learning efficiency.

S2: "I feel like a personalized experience helps me feel cared for and given the best learning conditions in my own way."

S3: "Personalized technologies have helped me enhance my ability to self-study and effectively self-regulate my learning process."

S5: "I feel personalization helps me develop my English skills in my own way, suitable to my level of understanding and ability."

S7: "Personalization technologies have helped me create a study schedule that is flexible and fits my daily schedule."

S9: "Personalization helps me feel valued and considered more personally in the learning process."

S12: "Personalization technologies help me create a flexible and interesting learning environment that suits my personal needs and desires."

S15: "The personalized experience helped me feel cared for and cared for, thereby creating a comfortable and positive learning environment."

**In group 3: they feel more confident in their English learning journey because of knowing the learning content is tailored to their needs and abilities.

S4: "Personalized experiences help me feel encouraged and supported by technology, creating a positive learning environment."

S10: "The personalized experience has helped me discover new and interesting methods of learning English, thereby creating greater motivation for learning."

S11: "I feel personalization helps me develop self-management learning skills and set specific learning goals for myself."

S14: "Personalization helps me feel more interested and excited when accessing learning content, thereby creating excitement and motivation in the learning process."

Through analyzing the above interview results, the data shows consensus among students for personalized learning experiences in learning English, especially in group G1.2, which accounts for the highest rate with nearly 50%. This means that students feel their learning awareness is improved and their learning process is taken care of.

2.2. Interview results for Impact on Learning Business English

To analyze the interview results more clearly, the responses were analyzed into 3 main groups based on each individual's experience:

Group 2.1 (G2.1): Improve Understanding of Professional Terminology

Group 2.2 (G2.2): Access to Rich Study Materials

Group 2.3 (G2.3): Increase Confidence and Improve Grammar

Table 8: Table Evaluating the overall results of the interview

Main impact	Students (S) had similar answers	Percentage
G2.1	1, 4, 7, 11, 14	≈ 33,33%
G2.2	2, 5, 9, 12	≈ 26,66%
G2.3	3, 6, 8, 10, 13, 15	= 40%

More specific:

**In group 1, they emphasized that the translation and expression features of artificial intelligence have helped them understand and use specialized terms in business English more flexibly and accurately.

S1: "AI's translation and expression features have helped me understand and use specialized terms in business English more flexibly and accurately."

S4: "AI has helped me grasp specialized terminology more quickly and flexibly, thanks to the translation and expression features."

S7: "Using AI has helped me grasp and apply specialized terms more accurately and flexibly in my daily work."

S11: "Thanks to the translation and expression features, I can understand and use specialized terms more flexibly, helping me progress in my daily work."

S14: "AI's translation and expression features have helped me save time in understanding and using specialized terms."

**In group 2, it was emphasized that artificial intelligence has facilitated access to diverse learning materials, leading to a significant expansion of their vocabulary and knowledge of the business field.

S2: "I can access diverse resources from textbooks to real business articles."

S5: "Helps me easily access many different sources of documents."

S9: "AI has helped me save time in searching and accessing rich and diverse document sources."

S12: "AI has helped me maintain regular study without forgetting, thanks to the reminder and study planning features."

**In group 3, they feel more confident in their English learning journey because they know the learning content is tailored to their needs and abilities.

S3: "My confidence in business English communication has been boosted thanks to instant feedback from AI, helping me improve my grammar automatically."

S6: "AI's instant feedback feature has increased my motivation in the learning process and helped me become more confident when communicating in English."

S8: "I feel more interested and more patient in the process of learning business English thanks to AI's automatic feedback feature."

S10: "Using AI has helped me feel more confident when using and applying specialized terms in business English communication."

S13: "My confidence in business English communication has been boosted thanks to receiving instant feedback from AI."

S15: "The instant feedback feature from AI has helped me improve my grammar and become more confident when communicating in English in a business environment."

Through the above analysis results, the data has shown that the 3 main groups influence their Business English learning process quite evenly, not much different from each other, 33.33%, 26.66%, and 40% respectively. This shows that most of the effects of learning business English are positive.

V. DISCUSSION

This study employs survey and interview methodologies to gather opinions from 49 different students majoring in Business English at Nguyen Tat Thanh University. The primary objective is to explore AI's impact on students' effectiveness and study habits. To elucidate this, a survey with 7 main questions was conducted to gauge students' agreement levels regarding AI's positive impacts. Furthermore, to delve deeper into these impacts, the researchers conducted interviews with 2 main questions for the students.

The research findings reveal that the level of agreement among NTTU students regarding previous studies exceeds 90%. For instance, Rana AlShaikh (2024) discovered that AI-based learning platforms can enhance students' learning abilities, while Amy Wanyu Ou's paper (2024) showed that AI can personalize learning pathways and help improve language skills. Additionally, other positive impacts stemming from personalized experiences and direct effects on outcomes and the learning process facilitated by AI were clarified through interviews. Through these positive impacts, it is evident that AI has significantly influenced both outcomes and students' study morale.

1. The positive points in using AI for English learning in NTTU context

One notable aspect of utilizing AI in language learning at NTTU is its significant role in students' academic endeavors. Survey results indicate that AI constitutes a crucial part of over 50% of students' learning and research processes, with personalized experiences being the primary reason for choosing AI as a vital tool for studying. Features such as assessment and analysis of learning outcomes, along with the creation of a less stressful learning environment, are widely acknowledged by students. However, some dissenting opinions exist, albeit in the minority among survey participants. The tangible benefits, such as enhanced learning efficiency, increased motivation, and skill development, are consistent regardless of the context. Moreover, positive impacts discovered in international contexts align with those in Vietnam.

Regarding AI's general features and its personalized capabilities, they significantly influence learners. The majority of students emphasize that these features elevate their learning awareness, with daily reminders from AI throughout their learning journey fostering a sense of importance and support, thereby creating a disciplined yet non-restrictive learning environment. Additionally, AI-based learning platforms typically offer clear and comprehensive learning pathways, with explicit learning objectives, motivating learners to achieve predefined goals. The substantial improvement in learning outcomes serves as compelling evidence that AI's impacts on students are highly effective, introducing entirely new learning experiences. Overall, while AI's personalization is not the sole reason for users' trust in this tool, it remains the primary factor influencing the selection of a suitable platform to serve their learning and research needs.

2. The impacts of AI on Business English students

For all interviewees, AI appears to be an immensely important tool for their learning effectiveness and outcomes. Specialized terms—often time-consuming to accurately define in a business context—are enhanced by AI's translation and precise expression features. Furthermore, the ability to search diverse sources, from textbooks to business articles, reduces students' time spent finding materials that meet their needs and requirements during their learning process. Additionally, AI's real-time feedback helps students improve significantly in writing and speaking skills by identifying core errors and providing effective and logical solutions. In summary, for English in the field of commerce, AI has a significant impact on students in this specialized field, extending beyond enhancing theoretical knowledge to directly influencing practical skills.

3. Potential risks occurring when using AI in the future

While the positive impacts of AI on language students have been elucidated, there are also potential hidden risks that need to be considered. For instance, AI may lead students to gradually rely on machines, diminishing their ability for independent thinking. Consequently, students may become intellectually lazy and their problem-solving skills may deteriorate. Additionally, there are risks of personal information loss or leakage, especially if AI platforms fail to implement proper security measures. Moreover, excessive use of AI can result in a lack of interaction among peers and educators, diminishing essential communication and collaboration skills necessary for learning and work. In general, while AI offers significant benefits for language learning users, it also brings about potential hidden negative impacts if users fail to maintain a balanced and proper utilization.

4. The limitations of studies

Due to the relatively short duration of the study, conducting a survey for all students majoring in English for Business at NTTU is feasible but challenging. Therefore, the sample size of this study is relatively small (n = 49), which may not represent all students in this major. Furthermore, online interviews may lead to inaccuracies as it is difficult to observe participants' body language and expressions when answering interview questions, potentially causing important information to be missed. For example, a participant may answer "yes" to a question, but their facial expression may indicate otherwise. Additionally, there is a lack of a control group to compare AI-based online learning methods and traditional learning methods, which could assess the impact and preferences of students for both learning approaches.

VI. CONCLUSION AND RECOMMENDATIONS

1. Implications

This study has affirmed the potential of AI in enhancing language learning effectiveness and provided more specific evidence of its importance, including its ability to absorb knowledge, retain it in the long term, and develop necessary skills. Additionally, it offers a comprehensive overview of the impacts of AI on NTT university students, providing educational institutions with more data to use in improving the education system for the most effective educational activities. Furthermore, it provides a more objective view from various perspectives when synthesized and analyzed clearly. The results of this study will serve as a stepping stone for future research in various universities across Vietnam.

However, the fact that it has not confirmed the negative impacts of AI but only suggested potential risks that may arise in the future may be a significant limitation of this study. Nonetheless, this serves as a research gap for further studies to address and clarify this issue.

Overall, this study has provided insights into the impacts of AI on students majoring in business English. It also elucidates how personalization has influenced the learning effectiveness of language learners in general, with the potential to provide additional findings for educational institutions to consider and develop further, thereby integrating AI into the educational environment more robustly.

2. Recommendations

2.1. For educational organizations

For educators, developing AI-powered platforms tailored to each specific field of study to provide comprehensive lectures and data to students will make them feel that knowledge is no longer elusive but rather clearer, thereby boosting student learning efficiency. Furthermore, equipping teachers with the necessary knowledge and skills to effectively apply AI functions into the curriculum is essential. This training includes topics such as AI-based planning and using AI for assessing regular and final exams.

2.2. For future studies

For future studies, I propose expanding the research sample and increasing research activities on the impacts of AI when used in education by increasing the number of students and the duration of surveys and interviews, thereby yielding more objective and diverse results. Secondly, conducting comparative studies on the effectiveness of AI on students' learning processes compared to traditional teaching methods will provide different research outcomes for educational organizations to improve their teaching methods.

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