

Enhancing Vocabulary Acquisition for Technical University Students through the GHOST Strategy

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Abstract

This project aims to enhance English vocabulary acquisition among technical university students, particularly those enrolled in the five-year junior college programs within the Department of Tourism and the Department of Hospitality at Meiho University. The study employs a researcher-designed English Vocabulary Learning GHOST Questionnaire alongside five types of vocabulary assessment tests, including English-Chinese matching, dictation, translation (both directions), and cloze tests. The GHOST learning strategy integrates various techniques to actively engage students and connect learning to real-life experiences. These techniques include group activities, games, highlighting, contextual hints, observation, online resources, songs, stories, critical thinking, and self-regulated time management. By fostering positive learning experiences, the project seeks to boost students' confidence and satisfaction with their progress. Data for the study was gathered through questionnaires and analyzed using SPSS. The results indicate that students prefer diverse vocabulary learning methods, with songs and group activities being the most favored. Other commonly used strategies include games, contextual hints, online resources, and self-regulated time management. In terms of vocabulary assessment, students showed a preference for Chinese-English matching and dictation, suggesting that bilingual testing offers a sense of security while auditory reinforcement aids retention.

The study also highlights key challenges in vocabulary learning, such as a lack of effort and limited practice, with many students relying heavily on rote memorization. To address these issues, the researcher recommends adopting a variety of learning strategies, including incorporating music and group activities, utilizing games, contextual cues, and digital resources, and increasing practice and exposure.

Recognizing vocabulary as essential for communication, skill development, and career advancement, the researcher concludes with practical teaching recommendations to optimize vocabulary instruction and support student learning effectively.

Keywords: GHOST, Technical University, Vocabulary, Learning Strategies, Assessment

1. Introduction

English has long been recognized as a global language and is a mandatory subject in schools across many non-English-speaking countries, including Taiwan. Despite its widespread importance, many students, particularly those attending vocational schools, often feel intimidated or overwhelmed by the subject. This challenge is especially prevalent among students who struggle to see the practical applications of English in their everyday lives or careers. Drawing on over 30 years of experience teaching English at a technical college, the researcher has observed that many students struggle with low confidence and motivation. Their lack of interest in attending English classes often leads to poor exam performance, which in turn further diminishes their self-confidence. In light of this, she aims to integrate a variety of teaching methods and strategies to spark her students' interest in learning English and to improve their overall learning efficiency.

This study aims to explore students' English vocabulary learning strategies and their preferences for vocabulary assessment methods. Additionally, it seeks to employ a variety of approaches to enhance their motivation for learning English and ultimately expand their vocabulary size. At Meiho University, these goals try to be achieved through the GHOST strategies, incorporating games and group activities, hints and highlighting, observation and online resources, songs and stories, and critical thinking with self-regulated learning.

These strategies create an engaging and dynamic learning environment, fostering motivation, vocabulary retention, and independent learning. By integrating these methods, the researcher aims to address learning challenges while making vocabulary acquisition more enjoyable and relevant to students' professional futures.

2. Literature Review

2.1 *Some Vocabulary Research and Key Findings*

2.1.1 Vocabulary Size and Language Skills

Vocabulary size plays a crucial role in language proficiency, significantly affecting both comprehension and production skills. According to Taiwan's 2019 Curriculum Guidelines, junior high school graduates are expected to acquire 1,200 English vocabulary words. However, in reality, many students—particularly those who enter the vocational education system, such as senior vocational high schools or five-year junior colleges—struggle to meet this target.

Research underscores the importance of vocabulary size in language development. Nation (2006) emphasized that learners need knowledge of 8,000–9,000 word families for unassisted reading and 6,000–7,000 for understanding spoken language. Webb (2007) found that encountering a word ten times can improve knowledge, but even more exposures are needed

for mastery. In a later study, Webb (2008) noted that learners typically understand more words receptively than they can use productively, especially in the case of low-frequency vocabulary.

While Stæhr (2008) demonstrated a strong link between vocabulary size and proficiency in reading and writing, highlighting the particular importance of the first 2,000 words for beginners. Similarly, Schmitt (2008) pointed out that 8,000–9,000 word families are necessary for reading fluency, and 5,000–7,000 for effective oral communication. Laufer and Ravenhorst-Kalovski (2010) identified that knowing 4,000–5,000 word families is needed to understand 95% of written texts, while 8,000 are required for 98% coverage. Schmitt and Schmitt (2014) went a step further and emphasized the importance of mid-frequency words (3,000–9,000) for achieving fluency. Given these findings, it is essential to focus on improving the vocabulary size of the students involved in this study.

2.1.2 Vocabulary Testing and Assessment

Vocabulary testing and assessment encompass various approaches to measuring knowledge. Read (2000) distinguished between breadth and depth in vocabulary assessment, offering strategies for test design. Laufer and Goldstein (2004) introduced a bilingual test assessing passive and active recall, identifying passive recall as the strongest language performance predictor. Harrington (2006) validated the Yes/No Test as a reliable vocabulary knowledge measure. Nation and Beglar (2007) created the Vocabulary Size Test for assessing written receptive vocabulary. Ishii and Schmitt (2009) proposed combining size and depth measures for improved assessment, and Mochida and Read (2009) emphasized contextualized vocabulary tests using frequency lists. While Beglar (2010) validated a 140-item Vocabulary Size Test. Bilingual tests by Le Thi Cam Nguyen, Nation (2011), and Elgort (2013) proved effective for low-proficiency learners and highlighted cognate importance.

2.1.3 Pedagogical Strategies for Vocabulary Learning

Research highlights effective strategies for vocabulary learning. Gu and Johnson (1996) found that metacognitive strategies like Self-Initiation and Selective Attention enhance vocabulary acquisition in Chinese EFL learners. Nation and Meara (2002) emphasized balanced approaches focusing on both vocabulary size and depth. Interestingly, Milton (2009) critiqued the historical undervaluation of vocabulary teaching, challenging misconceptions about its role in language learning, whereas Schmitt (2010) offered a comprehensive guide on vocabulary research, detailing methodologies, assessment tools, and links to language skills. Similarly, Nation and Webb (2011) provided detailed pedagogical guidance, focusing on testing methods and teaching strategies.

This research underscores the interconnectedness of vocabulary size, effective assessments, word frequency, and the importance of tailored, learner-focused instructional approaches.

2.2 *Vocabulary Learning and Games/Group Learning*

2.2.1 Vocabulary Learning and Games

Research highlights the effectiveness of gamified approaches to vocabulary learning. For instance, Yip and Kwan (2006) and Abrams and Walsh (2014) demonstrated the motivational

benefits of games, where interactive tasks, rewards, and competition boost student participation and retention. Huyen and Nga (2003), Akdogan (2017), and Bakhsh (2016) also emphasized that games create a fun, low-stress environment conducive to active involvement. In line with this study, Derakhshan and Khatir (2015) and Shabaneh (2019) noted that the engaging nature of games increases student participation, with Shabaneh (2019) specifically highlighting their role in enhancing vocabulary retention through repeated exposure in meaningful contexts.

Similarly, Huyen and Nga (2003) and Bakhsh (2016) underscored the value of contextual learning, allowing learners to practice vocabulary in real-life scenarios. Akdogan (2017) and Naderiheshi (2022) examined different game types, such as competitive, cooperative, and digital formats, emphasizing the importance of aligning these with educational objectives. Both authors highlighted the need for pedagogically sound games tailored to learners' needs. Additionally, Bakhsh (2016) and Naderiheshi (2022) pointed out that games foster social interaction, teamwork, and problem-solving skills, providing a holistic learning experience.

Experimental studies, such as those by Derakhshan and Khatir (2015), confirmed that students using games outperform those relying on traditional methods, solidifying their role in effective vocabulary acquisition.

2.2.2 Group Learning and Vocabulary Learning

Research also highlights the benefits of group work in vocabulary learning. Huong (2006), Lin (2018), and Zarei and Gilani (2013) emphasized how peer interaction in group work enhances vocabulary retention and comprehension by allowing students to learn from and support one another. In alignment with this study, Lin (2019) found that students had positive attitudes toward group work due to its interactive and motivating nature. Lin (2018) and Dobao (2014) also showed that group work fosters active participation, enabling learners to practice vocabulary through discussion and receive immediate feedback. Drawing a fine line between pair and group work, Dobao (2014) noted that while pair work offers focused interaction, group work provides diverse language input and collaboration. Zarei and Gilani (2013) recommended combining collaborative techniques for optimal results, with Huong (2006) confirming its cross-cultural applicability.

In summary, by integrating the benefits of group work with the motivational and interactive nature of games, educators can cultivate a dynamic and effective environment for vocabulary acquisition, promoting both linguistic proficiency and social skills development.

2.3 Vocabulary Learning and Hints/Highlighting

2.3.1 Hints and Learning Strategies

Other research studies highlight the value of hints in improving learning outcomes, particularly in vocabulary instruction. McLane and Selmeczy (2024) emphasized that hints enhance children's recall of scientific facts, especially for those with lower confidence, suggesting that combining confidence-building techniques with hints boosts learning. Chen and Yeh (2017) found that field-independent learners benefit more from hints in academic English, while field-dependent learners require additional support, emphasizing the need for differentiated teaching.

In language learning, Moulton (1952) advocated repetition, association, and contextual hints for vocabulary acquisition. Allen and Christiansen (2019) demonstrated that combining statistical data with contextual hints improves word segmentation. Recent studies like Rouhani and Modarresi (2023) revealed that hint-based methods using contextual clues significantly enhance vocabulary retention, with a combination of hint-based and meaning-based strategies providing the most effective and balanced instructional approach.

2.3.2 Vocabulary Learning and Highlighting

Ponce et al. (2018) demonstrated that interactive highlighting enhances vocabulary acquisition and reading comprehension by directing students' attention to key information, fostering retention and deeper understanding. Reutzel and Hollingsworth (1988) introduced a generative-reciprocal approach that combines highlighting essential vocabulary with inference-making, promoting active participation and comprehension. Similarly, Moulton (1952) and Reutzel and Hollingsworth (1988) emphasized active engagement strategies, including highlighting, inference generation, and contextual word application, as effective techniques for improving vocabulary retention and understanding in language learning.

Hints and highlighting create dynamic and inclusive learning environments, promoting vocabulary growth and accommodating diverse needs. These strategies promote meaningful, lasting language acquisition by actively engaging students in the learning process.

2.4 *Vocabulary Learning and Observation/Online Resources*

2.4.1 Vocabulary Instruction and Observation

Watts (1995) emphasized the integration of vocabulary instruction within reading lessons, using strategies such as repeated exposure and contextualization to enhance literacy development. Pine, et al. (1996) underscored the importance of combining observational and checklist methods to assess children's vocabulary, offering a more comprehensive view. On the other hand, Sparapani, et al. (2018) and Wright (2011) highlighted the significance of direct instruction, interactive discussions, and context-based activities for vocabulary development in early-grade classrooms. Loewenstein, Ocasio, and Jones (2012), through students' observations, presented a framework connecting vocabularies, practices, and institutions in organizations, illustrating how shared language shapes organizational behavior, decision-making, and culture. Silverman and Hartranft (2019) showed that active engagement and contextual word use foster vocabulary growth and reading comprehension in 5th and 6th grade elementary students.

2.4.2 Vocabulary Learning and Online Resources

Kilickaya and Krajka (2010) advocated for a blended approach combining teacher-led and digital resources for optimal vocabulary learning. Loucky (2010) highlighted the importance of structured online strategies, using tools like digital dictionaries and context-based exercises. Coxhead and Bytheway (2015) and Browne (2012) showed that large-scale online platforms offer learners flexibility, exposure, and autonomy, promoting self-directed learning and retention. Niitemaa and Pietilä (2018) found that strong vocabulary skills are linked to more effective use of online dictionaries, enhancing comprehension. Puspitasari and Wijaya (2022)

noted the positive impact of internet-based resources in providing engaging, real-life vocabulary contexts for independent learning.

2.5 Vocabulary Learning and Songs/Stories

2.5.1 Songs and Vocabulary Acquisition

Limbong (2012) and Pavia, Webb, and Faez (2019) examined the effectiveness of pop songs and incidental learning through music, showing that exposure to lyrics in a cultural and emotional context enhances word recognition and retention. Coyle and Gómez Gracia (2014) and Leśniewska and Pichette (2016) highlighted how songs positively impact preliterate children by boosting engagement and recall through multisensory activation. Albaladejo, Coyle, and de Larios (2018) and Çevikbaş, Yumurtacı, and Mede (2018) emphasized that songs offer an enjoyable, context-rich method for introducing and reinforcing vocabulary, with their repetitive, rhythmic, and melodic qualities aiding memory retention and language comprehension.

2.5.2 Vocabulary Learning and Stories

Medina and Hills (2003) introduced story-songs, combining narrative and melody to engage learners, making vocabulary acquisition both enjoyable and memorable by facilitating auditory and contextual learning. İnal and Cakir (2014) and Kirsch (2016) emphasized storytelling as an effective vocabulary teaching tool through meaningful contexts, enhancing comprehension and recall. Coyne et al. (2014) highlighted the benefits of interactive storybook readings, where discussions significantly boost vocabulary learning for young learners. Al-Dersi (2013), Bakhodirovna (2015), and Abdalrahman (2022) demonstrated the effectiveness of short stories in EFL classrooms. Leśniewska and Pichette (2016) found that while both songs and stories aid vocabulary learning, songs have a stronger impact, especially for preliterate children, due to their repetitive and auditory nature.

In summary, songs and stories are effective for vocabulary acquisition, especially for young or preliterate learners. Pop songs and story-songs enhance word recognition through engaging, context-rich experiences. Storytelling, particularly interactive readings, supports learning by offering meaningful contexts, while songs, with their rhythmic and repetitive qualities, have a stronger impact on retention.

2.6 Vocabulary Learning and Reflective Thinking and Self-regulated Time

2.6.1 Critical Thinking and Vocabulary Learning

Studies (e.g., Fahim & Komijani, 2010; Behdani & Rashtchi, 2017) highlighted a strong link between critical thinking skills and effective vocabulary learning strategies. Learners with stronger critical thinking abilities excel in analyzing and applying vocabulary, improving retention and usage. Ünalı and Yüce (2021) found a positive correlation between vocabulary size, grammar proficiency, and critical thinking. Rahimi and Soryani (2014) and Nosratinia et al. (2015) emphasized the role of teacher and learner autonomy in improving vocabulary instruction and outcomes, particularly through critical thinking activities.

2.6.2 Vocabulary Learning and Self-regulated Time

Several studies emphasize the role of self-regulated learning (SRL) in improving academic and language learning outcomes. Dunlosky and Ariel (2011) highlighted how effective time management and learning strategies can boost performance. Castel et al. (2013) demonstrated that both younger and older adults benefit from self-regulation, with older adults prioritizing key information despite memory issues. Mizumoto (2013) emphasized how self-efficacy, goal-setting, and monitoring enhance vocabulary learning. Şahin Kızıl and Savran (2018) and Chen, Chen, and Yang (2019) showed how ICT tools and SRL-based apps improve vocabulary retention and motivation. Research by Stehle (2010) and Wang and Kelly (2013) stressed the importance of study duration, spaced repetition, and enjoyable methods. Additionally, tools like mobile phones, language games, and personalized strategies promote flexible, interactive learning, especially for young learners.

In summary, critical thinking enhances vocabulary learning through analysis and application, improving retention. Self-regulated learning (SRL) boosts outcomes via time management, goal-setting, and ICT tools, while interactive games and tailored strategies support retention.

3. Research Methods

3.1 Research Subjects

The study involved 61 students from the five-year program in the Tourism and Hospitality Departments at Meiho University.

3.2 Research Instrument

The GHOST strategy was integrated into English classes for one semester (2018-2019) as part of a Ministry of Education-funded program. It encompassed various components, including group activities, games, key highlights, hints, observations, online resources, songs, stories, critical thinking, and self-regulated time management. To assess its effectiveness and impact on vocabulary learning, participants completed a researcher-designed GHOST questionnaire. This questionnaire included 15 closed-ended questions on the strategy and students' experiences with vocabulary assessments, along with 4 open-ended questions on vocabulary learning strategies and English learning objectives.

Throughout the semester, the researcher administered 10 vocabulary tests, covering Chinese-English matching, dictation, translation (Chinese to English and vice versa), and cloze exercises. Two English experts reviewed the questionnaire to ensure clarity and eliminate ambiguity. After a semester of implementing the GHOST strategy, students voluntarily completed the questionnaire in 2019.

4. Results and Discussion

4.1 Descriptive Statistics

After analyzing the data from Table 1 on the GHOST strategy, the researcher found that 75.4% of participants enjoyed learning English vocabulary through games, aligning with previous studies (Huyen & Nga, 2003; Yip & Kwan, 2006; Abrams & Walsh, 2014; Derakhshan & Khatir, 2015; Bakhsh, 2016; Akdogan, 2017; Shabaneh, 2019; Naderiheshi, 2022). Additionally, 77.1% preferred group activities (Huong, 2006; Zarei & Gilani, 2013; Lin, 2019; Dobao, 2014; Lin, 2018), and 77.1% favored using hints (Moulton, 1952; Chen & Yeh, 2017; Allen & Christiansen, 2019; Rouhani & Modarresi, 2023; McLane & Selmeczy, 2024).

Furthermore, 70.5% enjoyed learning with highlights (Moulton, 1952; Ponce et al., 2018; Reutzel & Hollingsworth, 1988), 67.2% preferred observational activities (Watts, 1995; Pine et al., 1996; Wright, 2011; Loewenstein et al., 2012; Sparapani et al., 2018; Silverman & Hartranft, 2019), and 72.1% valued online resources (Kilickaya & Krajka, 2010; Loucky, 2010; Browne, 2012; Coxhead & Bytheway, 2015; Niitemaa & Pietilä, 2018; Puspitasari & Wijaya, 2022).

Additionally, 86.9% enjoyed songs (Limbong, 2012; Coyle & Gómez Gracia, 2014; Leśniewska & Pichette, 2016; Albaladejo et al., 2018; Çevikbaş et al., 2018; Pavia et al., 2019), 77.0% preferred stories (Medina & Hills, 2003; Al-Dersi, 2013; Coyne et al., 2014; İnal & Cakir, 2014; Bakhodirovna, 2015; Kirsch, 2016; Leśniewska & Pichette, 2016; Abdalrahman, 2022), and 73.7% appreciated incorporating critical thinking (Fahim & Komijani, 2010; Rahimi & Soryani, 2014; Nosratinia et al., 2015; Behdani & Rashtchi, 2017; Ünalı & Yüce, 2021). Lastly, 78.7% found self-regulated time management beneficial (Stehle, 2010; Dunlosky & Ariel, 2011; Castel et al., 2013; Mizumoto, 2013; Wang & Kelly, 2013; Şahin Kızıl & Savran, 2018; Chen et al., 2019).

Regarding vocabulary assessment, 78.7% of participants preferred Chinese-English matching, aligning with the studies of Laufer and Goldstein (2004) and Le Thi Cam Nguyen & Nation (2011). Additionally, 70.5% favored dictation, 73.7% preferred translating from Chinese to English, 73.8% favored translating from English to Chinese, and 65.6% liked cloze tests, consistent with the findings of Mochida and Read (2009).

The data analysis showed that students preferred various methods for learning English vocabulary, with songs (86.9%) and group activities (77.1%) being the most favored. Songs enhanced students' motivation and enjoyment, while group activities boosted confidence, social interaction, and reduced feelings of isolation. For vocabulary assessments, Chinese-English matching (78.7%) and dictation (70.5%) were the most popular, suggesting that bilingual testing provided a sense of security through the mother tongue, while auditory reinforcement aided vocabulary retention. Critical thinking, self-regulated time management, and online resources were also highly preferred, indicating that personalized pacing, time for reflection, and technological advancements support effective learning.

Table 1. The Summary of the Subjects' GHOST Questionnaire ($N=61$)

<i>Item</i>	<i>n</i>	<i>%</i>
GHOST Strategy		
Games		
SA+A	46	75.4%
N	15	24.6%
SD+D	0	0.0%
Grouping		
SA+A	47	77.1%
N	12	19.7%
SD+D	2	3.3%
Hints		
SA+A	47	77.1%
N	14	23.0%
SD+D	0	0.0%
Highlighting		
SA+A	45	73.7%
N	14	23.0%
SD+D	2	3.3%
Observation Activities		
SA+A	41	67.2%
N	20	32.8%
SD+D	0	0.0%
Online Resources		
SA+A	44	72.1%
N	16	26.2%
SD+D	1	1.6%
Songs		
SA+A	53	86.9%
N	8	13.1%
SD+D	0	0.0%
Stories		
SA+A	47	77.0%
N	13	21.3%
SD+D	1	1.6%
Critical Thinking		
SA+A	45	73.7%
N	15	24.6%
SD+D	1	1.6%
Self-regulated Time		
SA+A	48	78.7%
N	10	16.4%
SD+D	3	4.9%

Vocabulary Assessment		
Chinese-English Matching		
SA+A	48	78.7%
N	10	16.4%
SD+D	3	4.9%
Dictation		
SA+A	43	70.5%
N	18	29.5%
SD+D	0	0.0%
Chinese-English Translation		
SA+A	45	73.7%
N	14	23.0%
SD+D	2	3.3%
English-Chinese Translation		
SA+A	45	73.7%
N	13	21.3%
SD+D	3	4.9%
Cloze		
SA+A	40	65.6%
N	19	31.1%
SD+D	2	3.3%

Note: SA-strongly agree; A-agree; N-neutral; D-disagree; SD-strongly disagree

4.2 Qualitative Data Analysis

The questionnaire includes four open-ended questions regarding students' vocabulary learning strategies and English learning goals. Below are the key findings from students' responses:

(1) What is the reason for not having enough English vocabulary?

32.7% of students cite a lack of effort and motivation as the main reason, mentioning issues such as laziness in studying, lack of seriousness, insufficient practice, inconsistency in learning, and avoidance. 26.9% attribute the problem to a lack of practice and exposure, including insufficient practice, limited English reading, inadequate vocabulary exposure, and minimal contact with English. 15.4% mention poor memory and retention as a barrier, with difficulties recalling and retaining words after memorization. 13.5% indicate problems with learning methods, such as not knowing how to memorize effectively, relying on rote memorization, or lacking proper study techniques. 11.5% report a lack of a solid vocabulary foundation, including not memorizing enough vocabulary or failing to memorize regularly.

(2) How do you usually memorize vocabulary?

49.1% of students rely on rote memorization, such as repeating writing or reciting words. 21.8% use writing and repetition, including handwriting for memorization and writing while reading

aloud. 16.4% learn by listening and pronunciation, with practices like watching pronunciation videos, listening, reading, writing, checking online for pronunciation, and using online teaching resources. 7.3% engage in peer interaction and collaborative learning, such as asking classmates for help, practicing with others, and repeating with peers. 5.5% focus on practice and repetition, including continuous practice, writing and reading aloud, and drawing syllables for memorization.

(3) How do you hope to improve your English vocabulary?

66.7% of students employ various methods to improve vocabulary, such as watching Western TV shows, reading original language books, studying more, listening and writing more, and attending cram school. 10.3% seek help and support, including asking classmates for assistance, watching instructional videos, or getting tutoring. 17.9% focus on consistency and frequency, such as listening 3-5 times a day, doing assignments, memorizing words daily, and reading books. 5.1% express confidence in their current vocabulary or have a positive self-perception about their vocabulary.

(4) What can having sufficient vocabulary in English help you with?

47.1% of students believe sufficient vocabulary will enable them to communicate with foreigners, travel abroad, or perform well in job interviews in English. 29.4% believe it will help improve their language skills, including reading, listening, speaking, and writing. 14.7% see practical and career benefits from having a sufficient vocabulary. 8.9% think sufficient vocabulary will help them understand and express ideas more effectively.

In summary, the questionnaire revealed students' insights on vocabulary learning. Key barriers to vocabulary acquisition include a lack of effort (32.7%), limited practice and exposure (26.9%), poor memory (15.4%), ineffective methods (13.5%), and weak foundations (11.5%). Most students rely on rote memorization (49.1%) and writing-based methods (21.8%). To improve, 66.7% aim to use various strategies, while others seek support (10.3%) or prioritize consistency (17.9%). Sufficient vocabulary is seen as vital for communication (47.1%), skill development (29.4%), and career opportunities (14.7%).

5. Conclusion and Recommendations

5.1 Conclusion

The study found that students preferred a variety of methods for learning English vocabulary, with songs (86.9%) and group activities (77.1%) being the most favored. Songs increased motivation and enjoyment, while group activities enhanced confidence, social interaction, and reduced isolation. Other popular strategies included games (75.4%), hints (77.1%), online resources (72.1%), and self-regulated time management (78.7%), indicating a preference for engaging and flexible learning approaches.

For vocabulary assessment, students favored Chinese-English matching (78.7%) and dictation (70.5%), suggesting that bilingual testing provided a sense of security, while auditory

reinforcement supported retention. Additionally, critical thinking and personalized learning were highly valued, reinforcing the need for adaptable teaching methods.

The study also identified key barriers to vocabulary learning, including lack of effort (32.7%) and limited practice (26.9%), with 49.1% of students relying on rote memorization. However, 66.7% planned to adopt diverse learning strategies to improve their vocabulary skills. Students viewed vocabulary as crucial for communication (47.1%), skill development (29.4%), and career opportunities (14.7%), emphasizing its importance in both academic and professional settings. These findings highlight the need for varied, interactive, and practical vocabulary instruction to enhance student learning outcomes.

5.2 Recommendations

The study recommends several strategies to enhance vocabulary instruction for technical university students. First, integrating music and group activities can boost motivation and engagement through interactive exercises like storytelling, charades, and debates. Second, diversifying learning strategies by incorporating games, contextual hints, and digital resources helps improve retention and encourages self-regulated learning.

Third, increasing practice and exposure allows students to apply vocabulary in real-world contexts through role-playing, discussions, and writing tasks. Immersive methods such as language exchange programs and interactive reading exercises further reinforce learning. Fourth, moving beyond rote memorization by focusing on word associations, visual aids, and contextual usage strengthens recall through mnemonic strategies and mind maps.

Fifth, supporting students facing challenges involves addressing obstacles like low motivation and limited exposure through structured practice, peer mentoring, and personalized feedback. Sixth, enhancing assessment methods by incorporating listening activities, creative writing, and AI-powered tools ensures more effective vocabulary evaluation.

Finally, emphasizing the practical value of vocabulary proficiency highlights its importance in communication, skill development, and career advancement. Industry-specific vocabulary training further prepares students for professional settings. These strategies aim to make vocabulary learning more effective, engaging, and adaptable to students' needs.

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Appendix

English Vocabulary Learning GHOST Questionnaire

	5: Highest; 4: High; 3: Neutral; 2: Low; 1: Lowest	SA	A	N	D	SD
1	I enjoy learning English vocabulary through games .	5	4	3	2	1
2	I enjoy learning English vocabulary through group study.	5	4	3	2	1
3	I like learning new words by receiving hints .	5	4	3	2	1
4	I find it helpful to highlight vocabulary, such as by underlining or using colors.	5	4	3	2	1
5	I enjoy observing the form and structure of words to aid understanding.	5	4	3	2	1
6	I prefer learning English vocabulary through online resources.	5	4	3	2	1
7	I like integrating vocabulary learning with songs .	5	4	3	2	1
8	I enjoy combining vocabulary learning with stories .	5	4	3	2	1
9	I like critical thinking on vocabulary to create a stronger impression.	5	4	3	2	1
10	I use self-managed time strategies to learn English vocabulary.	5	4	3	2	1
11	I enjoy matching Chinese and English words to test my vocabulary.	5	4	3	2	1
12	I prefer vocabulary tests that involve dictation.	5	4	3	2	1
13	I like vocabulary tests that require translating Chinese into English.	5	4	3	2	1
14	I enjoy vocabulary tests that involve translating English into Chinese.	5	4	3	2	1
15	I find cloze (fill-in-the-blank) tests effective for vocabulary learning.	5	4	3	2	1

SA: Strongly Agree; A: Agree; N: Neutral; D: Disagree; SD: Strongly Disagree

16. What is the reason for not having enough English vocabulary?

17. How do you usually memorize vocabulary?

18. How do you hope to improve your English vocabulary?

19. What can having a sufficient vocabulary in English help you with?

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