



**THE USE OF BLENDED LEARNING MODEL APPROACH
THROUGH “SHANBAY” APPLICATION TO IMPROVE
ENGLISH VOCABULARY SKILL AMONG GRADE 8
CHINESE STUDENTS**

BY

WENZHI PU

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
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Abstract

The quasi-experimental study focused on investigating the English vocabulary skill of grade 8 Chinese students before and after the use of Blended Learning Model (BLM) via "Shanbay" application. The study also aimed to examine their learning satisfaction with this approach. The research participants consisted of 30 grade 8 students in Shandong, China. Quantitative data were collected through vocabulary skill tests (pre-test and post-test) and a questionnaire. These data were analyzed using statistical measures, including paired sample t-Test, mean, and standard deviation, with a significance level of ≤ 0.05 . The results of the vocabulary skill test indicated that there was a significant improvement in the vocabulary skill of grade 8 students after they implemented BLM through "Shanbay" application, with a pre-test mean score of 37.37 (out of 60), a post-test mean score of 46.60, a mean difference of 9.23, and a significance value of 0.01. Additionally, the questionnaire results showed that the students expressed high satisfaction with the use of BLM through "Shanbay" application in their vocabulary classes. Therefore, the findings suggested that implementing BLM through "Shanbay" application effectively enhanced the students' vocabulary skill.

(Total 160 pages)

Keywords: Blended Learning Model, "Shanbay" Application, English Vocabulary Skill,
 Learning Satisfaction, Grade 8 Students

Student's Signature Thesis Advisor's Signature

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	i
ABSTRACTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
ABBREVIATIONS	viii
CHAPTER 1 INTRODUCTION	1
1.1 Background and Rationale of the Study	1
1.2 Research Objectives	7
1.3 Research Questions	8
1.4 Research Hypotheses	8
1.5 Scope of the Study	8
1.6 Limitations of the Study	12
1.7 Conceptual Framework of the Study	13
1.8 Research Terminologies	15
1.9 Significance of the Study	17
CHAPTER 2 LITERATURE REVIEW	19
2.1 Teaching and Learning English as a Foreign Language in China	19
2.2 Chinese English Vocabulary Standards for Grade 8 Students	20
2.3 English Vocabulary	21
2.4 Theoretical Foundations of Mobile Learning	25
2.5 Shanbay Application	30
2.6 Application of Mobile Blended Learning in Language Education	38

TABLE OF CONTENTS (CONT.)

	Page
2.7 Students' Learning Satisfaction	42
2.8 Related Theories	43
2.9 Review of Related Research	47
CHAPTER 3 RESEARCH METHODOLOGY	50
3.1 Research Design	50
3.2 Population and Sample	52
3.3 Research Instruments	53
3.4 Validity and Reliability of Research Instruments	59
3.5 Data Collection Procedures	62
3.6 Data Analysis	63
CHAPTER 4 DATA ANALYSIS AND RESULTS	65
4.1 Analysis of English Vocabulary Skill Test Scores	65
4.2 Analysis of Questionnaire	69
CHAPTER 5 CONCLUSION, DISCUSSION AND RECOMMENDATIONS	74
5.1 Conclusion	74
5.2 Discussion	77
5.3 Recommendations	81
REFERENCES	83
APPENDICES	96
Appendix A Letter of Approval	97
Appendix B Participants' Information Sheet	99
Appendix C Experts who Validated Research Instruments	103

TABLE OF CONTENTS (CONT.)

	Page
Appendix D IOC of Lesson Plans	105
Appendix E Lesson Plans	107
Appendix F IOC of English Vocabulary Skill Test (Pre-Test & Post-Test)	130
Appendix G KR-20 Analysis of English Vocabulary Skill Test (Pre-Test & Post-Test)	132
Appendix H English Vocabulary Skill Test (Pre-Test & Post-Test)	142
Appendix I IOC of Questionnaire	151
Appendix J The Reliability Test Results of Questionnaire	154
Appendix K Questionnaire	156
BIOGRAPHY	160



LIST OF TABLES

	Page
Tables	
1.1 Time frame for the research process	10
1.2 Content of the study	10
3.1 Demographic profile of the research participants	53
3.2 The instruments used to achieve the research objectives	53
3.3 Lesson plans outline	54
3.4 The value range of Cronbach's alpha	61
3.5 The range of mean score interpretation	64
4.1 Score difference between pre-test and post-test	66
4.2 Paired samples t-Test results	69
4.3 Mean and standard deviation: Part A (n=30)	70
4.4 Mean and standard deviation: Part B (n=30)	71
4.5 Mean and standard deviation: Part C (n=30)	72



LIST OF FIGURES

Figures	Page
1.1 Location of the Study	9
1.2 Illustrates the independent and dependent variables	15
2.1 Step 1 of Shanbay application	33
2.2 Step 2 of Shanbay application	34
2.3 Step 3 of Shanbay application	35
2.4 Step 4 of Shanbay application	36
2.5 Step 5 of Shanbay application	37
2.6 Step 6 of Shanbay application	37
3.1 Below illustrates the research design of this study	51
4.1 Comparative graphical depiction of individual student scores	68
4.2 Comparison of pre-test and post-test mean	68



ABBREVIATIONS

Abbreviation	Meaning
EFL	English as a Foreign Language
ESL	English as a Second Language
MOE	Ministry of Education
BLM	Blended Learning Model
MBL	Mobile Blended Learning
MAVL	Mobile Assisted Vocabulary Learning
TELL	Technology-Enhanced Language Learning
IOC	Item-objective Congruence
KR-20	Kuder-Richardson Formula



CHAPTER 1

INTRODUCTION

This chapter provided a comprehensive explanation of the study's background and rationale, as well as its research objectives, questions, and hypotheses. It also offered a detailed account of the study's scope and limitations, the conceptual framework, the terminologies, and the expected outcomes.

1.1 Background and Rationale of the Study

In the 21st century's information age, the swift advancement of mobile technology has significantly enhanced the emergence and implementation of mobile learning, particularly in language education (Shahrol, Sulaiman, Samingan, & Mohamed, 2020). The mobile learning mode presents novel opportunities for language acquisition because it is unrestricted by temporal and spatial constraints and offers enhanced flexibility and personalization.

As globalization advances, English has become widely recognized as the lingua franca. There are over 760 million English speakers worldwide, including native and non-native speakers (Liu, Lin, & Wiley, 2016). The British Council points out that by 2020, the number of English speakers globally is expected to reach two billion. English is pivotal in international communication, business, education, technology, and entertainment (Ali & Siddiek, 2022; Putra, 2020; Rao, 2019). Therefore, mastering English can help overcome language barriers, enhance integration into the international community, and foster opportunities for international exchange (Wahyudin, Pustika, & Simamora, 2021). With the ongoing development of mobile technology and the pressing need for reform in EFL and ESL teaching methods, mobile learning is expected to play an increasingly critical and positive role in English language learning in the future.

In the 21st century, China is experiencing rapid development. Active participation in international politics, economics, and cultural exchanges requires proficiency in English for effective integration and engagement in global activities. Consequently, learning English has become essential for Chinese citizens to communicate effectively and participate actively on the world stage (Kang & Lin, 2019). The British Council predicts that by 2023, there will be 400 million English learners and 100 million English language teachers in China, and these numbers are expected to continue rising. (Cheng & Wei, 2021) noted that Chinese students currently devote a significant amount of time and energy to the study of English; however, the overall level has not been significantly enhanced, and their English proficiency has consistently been ranked in the middle and lower levels on a global scale. Therefore, exploring more effective English teaching models and methods is crucial for the Chinese education sector.

The three major elements of English learning are pronunciation, vocabulary, and grammar, with vocabulary being the most important skill during the basic education stage (Xiaoyan & Jing, 2021). According to Bai (2018), effective and fluent communication relies on having a substantial vocabulary. (Hashemi, 2021; Khafidhoh & Carolina, 2019; Simamora & Oktaviani, 2020) pointed out that vocabulary directly affects the development of English listening, speaking, reading, writing, and other abilities, serving as the foundation for cultivating students' comprehensive language use. (Brooks, Clenton, & Fraser, 2021) noted that vocabulary is a critical component of English reading comprehension, and the primary objective is to enhance one's vocabulary knowledge to enhance their reading comprehension abilities. Therefore, vocabulary is crucial to mastering language; without it, comprehension and application are hindered (Koleini, Boroughani, Eslami, & Xodabande, 2024). A strong vocabulary facilitates effective English communication in various contexts, such as daily interactions, reading comprehension, writing, and listening. It enables individuals to understand others' intentions and express their thoughts precisely (Alqahtani, 2015; Damayanti & Sari, 2017; Wahyudin et al., 2021) Therefore, vocabulary learning is crucial for second language learners and is the key to successful communication and overall language skills.

English teaching was integrated into the Chinese education system in the 1980s and has since become a main subject across all educational levels, from primary to university (Huang & Liu, 2024). The study of vocabulary is crucial for the enhancement of English communicative competence, particularly in middle school. (Huang & Liu, 2024). During this stage, students are at a pivotal point of language acquisition where building a strong vocabulary foundation is essential. Engaging actively in vocabulary learning not only prepares them for high school entrance exams but also enhances their overall communication abilities and self-confidence. Mastering a diverse vocabulary in junior high establishes a robust linguistic base, paving the way for advanced language use in the future. This early acquisition of vocabulary skills is key to enhancing language skills and equipping students for future academic and professional endeavors.

The "Compulsory English Curriculum Standards" issued by the MOE specify vocabulary requirements for middle school students. According to the 2011 standards, students in grades seven through nine must master 1,600 words as well as 200-300 idioms or fixed expressions (China, 2011). This requirement has been increased in the updated 2022 standards, with students now expected to use between 1,800 and 2,000 words, in addition to a fixed number of idioms and collocations (China, 2022). These adjustments reflected that English vocabulary requirements for middle school students are specific and continue to increase.

In China's curriculum education system, English curriculum education is typically defined as test-oriented and teacher-centered (Li, 2021; Qiao, Woodward, & Alam, 2024), this approach presents ongoing challenges in vocabulary instruction, resulting in students' passive learning, limited critical thinking skills, increased memory load, and decreased learning efficiency. Bao (2023) pointed out that students with a Chinese background lack a sufficient target language environment. When they apply the structures of their native language to English, they frequently face linguistic interference and experience anxiety when using the language. English vocabulary teaching methods are often monotonous, causing students to rely on rote memorization. As a result, they frequently make pronunciation errors, struggle to memorize words,

and encounter difficulties in spelling and accurately using vocabulary (Afzal, 2019; Sari, Rahayu, Apriliandari, & Sulisworo, 2018; Zhu & Wang, 2022). Many pupils have observed that vocabulary acquisition is tiresome and that conventional English classroom activities allocate inadequate time for vocabulary acquisition (Zeng et al., 2022). Wang (2022) mentioned that insecurity and anxiety levels are high among students, who often hesitate to read vocabulary aloud in class for fear of embarrassment. Further, Bao (2023) pointed out that vocabulary content in Chinese English textbooks is not comprehensive. For students who depend heavily on textbooks as their primary language input, this limitation may impede their understanding of tasks and their ability to use effective vocabulary learning strategies.

Considering these factors, integrating technology into English language learning is essential for teachers in the era of Industry Revolution 4.0 (Ajisoko, 2020). The integration of science and technology with educational reform and creative curriculum will become a trend in educational development as society advances and technology advances (Zhou, Sulee, & Wang, 2022). New learning methods such as M-learning, E-learning, Flipped Classrooms, and Blended Learning Models have a great impact on traditional classroom teaching and offer new opportunities for engagement. Data from the China Internet Network Information Center indicates that there are 1.038 billion Internet users in China as of June 2022, with 1.034 billion accessing the Internet via mobile phones, accounting for 99.8% of all users. This statistic fully demonstrates the popularity of mobile Internet and also indicates that mobile device-based learning has become increasingly feasible.

In response to the teaching reform necessitated by advancements in modern information technology, the "Education Informatization 2.0 Action Plan" released by the MOE in 2018 emphasized that the blended integration of modern information technology and classroom instruction has emerged as an essential approach for transforming classroom teaching (Ministry of Education of the People's Republic of China, 2018). Additionally, the Ministry of Education has released the "Compulsory Education English Curriculum Standards" (2022 version), emphasizing that students are maturing in an environment significantly altered by the proliferation of new online

media. To adapt to these changes, educators must integrate contemporary technologies into their English curriculum methodologies (Ministry of Education of the People's Republic of China, 2022). This integration will improve students' English learning experiences, boost motivation and engagement in the classroom, and promote positive and rapid optimization reforms in English teaching and learning in China.

The Blended Learning Model (BLM), is an emerging approach that integrates traditional teaching methods with online learning to enhance English education (Benito-Osorio, Peris-Ortiz, Armengot, & Colino, 2013; Waheeb & Alshareef, 2019). This model combines in-person instruction's interactivity with technology's flexibility and scalability (Tosun, 2015), focusing on building students' independent learning skills in English. BLM supports individualized learning, fosters collaborative learning, enhances interactive participation, and offers extracurricular practice opportunities to improve language skills and increase learning enthusiasm (Sari et al., 2018; Waheeb & Alshareef, 2019; Wahyuni, 2018). By blending online and offline instruction, students benefit from interaction with both peers and teachers, fostering a more positive attitude in English as a Foreign Language (EFL) classrooms (Hermann, Pentek, & Otto, 2016; Sihombing, Sinambela, & Tampubolon, 2023). Moreover, BLM enhances engagement and community, resulting in greater continuity in English learning than classic face-to-face or fully online teaching methods (Agosto, Copeland, & Zach, 2013; Guchinskaya & Kraeva, 2017; Kumar et al., 2021). The primary goal of a BLM is to find the best combination of two learning modes for every subject, context, and objective. (Alipour, 2020) found in a study of Iranian middle school students that the Blended Learning Model (BLM) makes the curriculum engaging, supportive, and inspiring, attracting students' attention to English learning. Furthermore, it asserted that the generation born into the digital age anticipates and embraces the inherent role of technology in their educational journeys. (Stanišić, 2022) reported in a Serbian study that 82% of students felt that the Blended Learning Model (BLM) makes it easier to follow the course.

Selecting effective online tools is essential when implementing the Blended Learning Model (BLM) in English teaching. Shanbay, a Mobile-Assisted Vocabulary

Learning (MAVL) application, has been widely adopted inside and outside the classroom (Chen, X., & Chen, X., 2018; Guo, Zhang, & Wu, 2022; Hong, 2021). This application accessible on mobile phones, ipads and computers, aims to enhance learners' vocabulary and language skills through M-learning (Zhang, 2024). Developed by Nanjing Beiwan Information Technology Co., Ltd., Shanbay is one of their prominent online education products and had amassed over 60 million users by September 2019, with 53.86% of its users under the age of 24 as of 2020, making Shanbay especially popular among young people. A key advantage of Shanbay is its ability to set personalized learning goals for users based on their individual needs and skill levels, providing customized feedback and assessment options (Chen, X., & Chen, 2018). Users can take vocabulary quizzes on translation, spelling, and dictation activities, as well as share their learning achievements within the community.

The Shanbay application is widely recognized as a highly effective, feature-rich, and user-friendly tool for vocabulary learning. (Zou, Wang, Xie, & Kohnke, 2018) pointed that Shanbay offers personalized study plans and self-assessment features, helping learners effectively study and retain new vocabulary. In addition, it provides supplementary resources and social functions that make the learning process more engaging and interactive, contributing to its popularity among students. (Guo et al., 2022) noted that integrating Shanbay into traditional classroom teaching settings enhances vocabulary instruction by adding elements of fun and interactivity. When classroom time is limited, students can continue vocabulary practice outside class using Shanbay, which can foster adherence to learning goals and boost enthusiasm and motivation. Furthermore, (Zhang & Perez-Paredes, 2019) observed that Shanbay's social features, such as sharing personal achievements, encourage healthy comparison and competition among users, motivating Chinese EFL students to invest more effort in building their English vocabulary. (Zhang, 2024) noted that Shanbay is a multifunctional application that offers a vast library of English test data, including high-frequency words, detailed explanations, and multiple vocabulary training modes, enabling learners to enhance their English vocabulary learning in a fragmented time.

As previously stated, the rapid development of technological advances and the mobile Internet has significantly influenced changes in educational methods. In English language learning, the traditional teacher-centered, classroom-based learning model is progressively shifting toward a student-centered, technology-supported M-learning approach. Against this backdrop, investigating the Blended Learning Model (BLM) that combines efficient mobile learning tools such as Shanbay with traditional teaching strategies is significant for improving English vocabulary skills among Chinese grade 8 students.

Despite the Blended Learning Model (BLM) having shown outstanding advantages in English learning, effectively integrating mobile learning with traditional teaching practice to improve students' vocabulary skill remains a significant challenge that requires in-depth exploration. Especially in specific application scenarios, such as English vocabulary learning middle schools in Chinese, where the specific effects and influencing factors of the BLM need to be verified through empirical research. Therefore, this study aims to explore the effect of the BLM on improving students' English vocabulary skill, and further analyze the students' learning satisfaction when using Shanbay application within this framework. This study not only provides a new teaching method and tool for the field of English education; but also offers reference and inspiration for implementing the Blended Learning Model (BLM) in English curriculum.

1.2 Research Objectives

1.2.1 To compare grade 8 Chinese students' English vocabulary skill before and after the use of Blended Learning Model (BLM) approach through "Shanbay " application.

1.2.2 To examine grade 8 Chinese students' learning satisfaction towards the use of Blended Learning Model (BLM) approach through "Shanbay" application.

1.3 Research Questions

1.3.1 Did the use of Blended Learning Model (BLM) approach through "Shanbay" application result in a significant improvement in the English vocabulary skill of grade 8 Chinese students?

1.3.2 What was the extent of grade 8 Chinese students' satisfaction with the use of Blended Learning Model (BLM) approach through "Shanbay" application in improving their English vocabulary skill?

1.4 Research Hypotheses

1.4.1 The use of Blended Learning Model (BLM) approach through "Shanbay" application would lead to a significant improvement in students' English vocabulary skill.

1.4.2 Grade 8 Chinese students' learning satisfaction with the use of Blended Learning Model (BLM) approach through "Shanbay" application in improving their English vocabulary skill was at a high level.

1.5 Scope of the Study

This study focused on grade 8 students in a middle school as the main research subjects in China. The reason for selecting grade 8 students as the research subjects was that students at this stage already had a certain basic English vocabulary and were at a critical stage where they needed to quickly accumulate a large number of vocabulary for higher-level English learning. As a result, it was critical to investigate the effect of Blended Learning Model (BLM) on improving English vocabulary skill among grade 8 students.

1.5.1 Location of the study

The study was carried out at a middle school in Heze City, Shandong Province, China, in the Eastern part of the People's Republic of China. This school

offered classes from Grade 1 to Grade 9 and included approximately 272 teachers and 2,800 students based on the statistical data in 2023.



Figure 1.1 Location of the study

Source: WhiteWolf, 2023

1.5.2 Population and Sample of the Study

The study consisted of 288 students in ten grade 8 classes at a middle school. After considering factors such as gender ratio and grade distribution, the researcher randomly selected 30 students from all grade 8 students using a random sampling method. The sample of 30, comprising 15 boys and 15 girls, ranged in age from 13 to 15 years.

1.5.3 Time frame

This study was carried out from August to October in the second semester of 2024. The interference experiment lasted for four weeks, with two sessions per week, each lasting 45 minutes, so eight sessions were used for data collection.

Table 1.1 Time frame for the research process

The time frame for the research process in 2024										
Activity	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.
Literature Review										
Research Proposal										
Data collection										
Data Analysis										
Article Writing										
Final Defence										

1.5.4 Content of the study

Table 1.2 Content of the study

Lesson Plans:	Topics / Sessions	Teaching activities
Test	Pre-test	
Lesson Plan 1 --Introduce the Shanbay app and use it to build a foundation of vocabulary learning skill.	Section 1: Introduction to Shanbay and preliminary skill of vocabulary with Shanbay. Section 2: Build a foundation of vocabulary learning skill with the Shanbay App.	1. Introduce the functions and usage of Shanbay App. 2. Select the vocabulary list of Grade 8, Volume-2, for preliminary study through the App. 3. Classroom activities: New words and phrases chain to stimulate students' interest. 4. Online activities: Learn the remaining vocabulary of Unit 1 of Grade 8, Volume - 2 through Shanbay App, and share your results in Shanbay group.

Table 1.2 Content of the study (Cont.)

Lesson Plans:	Topics / Sessions	Teaching activities
Lesson Plan 2 --Learn vocabulary memorization technique "association method" through Shanbay app.	Section 1: Using Shanbay App to learn vocabulary memory skill "association method". Section 2: Students practice vocabulary memory skill "association method" through Shanbay App.	<ol style="list-style-type: none"> 1. Explain memory skills, focusing on the "association method" of this lesson. 2. Use the memory card function of the Shanbay App combined with the mind map to practice the memory skills of the "association method". 3. Classroom activities: Design vocabulary mind maps in groups to practice the "association method" and make reports. 4. Online activities: Use the "vocabulary association method" learned in this lesson to learn the 20 vocabulary words of Unit 2 of the 8th grade second volume and make a mind map display.
Lesson Plan 3 -- Expand students' vocabulary by learning word roots and affixes through Shanbay App.	Section 1: Using Shanbay App, learn vocabulary through the vocabulary memory skill of "roots and affixes". Section 2: Students practice the vocabulary memory skill of "roots and affixes" through Shanbay App.	<ol style="list-style-type: none"> 1. Learn common roots and affixes through the Shanbay App. 2. Analyze word structure and understand the meaning of roots and affixes. 3. Classroom activities: root and affix word games. 4. Online activities: Learn the remaining words in Unit 2 of Grade 8 through the "root and affix" learning method.

Table 1.2 Content of the study (Cont.)

Lesson Plans:	Topics / Sessions	Teaching activities
Lesson Plan 4 --Learn how to use vocabulary in sentences through the example sentence function of Shanbay App.	Section 1: Learn vocabulary memorization skill using the "contextual learning method" through the Shanbay App. Section 2: Students practice vocabulary memorization skills using the "contextual learning method" through the Shanbay App.	1. Use the example sentence function of Shanbay App to learn how to use vocabulary in sentences. 2. Analyze the example sentences and discuss the contextual meaning of the vocabulary. 3. Classroom activity: Create a dialogue based on the vocabulary. 4. Online activity: Based on what you have learned in this lesson, learn and imitate the words and sentences in Unit 3 of Grade 8, Volume 2, based on the example sentences shown in Shanbay App.
Test	Post-test	

1.6 Limitations of the Study

In this study, the researcher faced several limitations. There were obvious challenges with sample selection. Due to resource and time constraints, the researcher could only cover some Chinese grade 8 junior high school students. Thus, the findings may only partially represent the overall situation. Diversity in factors such as region, learning environment, and personal background may also introduce sample selection bias, thereby affecting research conclusions.

1.6.1 This study was carried out just in one middle school in China, and owing to the limited number of participants, the findings were subject to certain limitations. Therefore, it was not advisable to use them as a reference for students in other grades within China or other countries.

1.6.2 Due to the limited duration of one month and only 8 sessions for experiments and data collection, the researcher believed that a more comprehensive set of findings might be necessary for this study. Therefore, the impact of these limitations must be carefully considered when interpreting and generalizing research findings.

1.6.3 The objective of this study was to compare grade 8 Chinese students' English vocabulary skills before and after implementing Blended Learning Model (BLM) approach via "Shanbay" application. As a result, these findings may not be applicable as references for other language skills and disciplines.

1.6.4 This study relied on the specific technological tool of the Shanbay application, so the generalizability of the research results may be limited, especially as technology updates and emerging teaching methods emerge.

1.7 Conceptual Framework of the Study

This study included three variables: one independent variable and two dependent variables. In this study, the use of Blended Learning Model (BLM) approach through "Shanbay" application was employed as the independent variable. Conversely, the dependent variables focused on the students' English vocabulary skill and their learning satisfaction.

Blended Learning Model (BLM) is an educational method that combines the advantages of online and offline learning to provide a more flexible and efficient learning experience. With the rapid development of digital technology, the Blended Learning Model has become an important trend in modern education.

According to the constructivist learning theory proposed by Jean Piaget, the utilization of Blended Learning Model (BLM) through Shanbay application facilitates students in constructing knowledge through their own active cognitive processes. This approach emphasizes the importance of personalized learning experiences, where students engage in activities that require them to actively think, explore, and problem-solve, thereby internalizing new information and forming a deeper understanding of the material. The integration of the Blended Learning Model (BLM) within Shanbay

application effectively supports this process by combining traditional classroom instruction with digital learning resources, creating a dynamic and interactive learning environment.

In this study, the Blended Learning Model proves to be highly beneficial for the sustained acquisition of English vocabulary. By leveraging Shanbay application, students are encouraged to participate more actively both inside and outside the classroom, fostering a greater sense of engagement and enthusiasm in their learning journey. The blended approach allows for a flexible learning experience, enabling students to practice vocabulary in various contexts and at their own pace, which enhances retention and application of new vocabulary.

Furthermore, the constructivist learning theory aligns with the principles of Technology-Enhanced Language Learning (TELL), which posits that advanced technology can significantly enhance language learning outcomes. The Shanbay application, as a technological tool, offers personalized learning paths that cater to individual student needs, thereby optimizing the learning experience. Through interactive quizzes, exercises, and real-time feedback, the application allows students to assess their progress and correct mistakes promptly, ensuring continuous improvement and a higher level of satisfaction in their English learning endeavours.

In conclusion, this study aims to create a powerful framework for English vocabulary acquisition through a blended learning model using the Shanbay application. This approach not only promotes active cognitive engagement, but also leverages technology to provide a personalized, interactive, and responsive learning experience, ultimately improving student learning satisfaction and their English vocabulary skill.

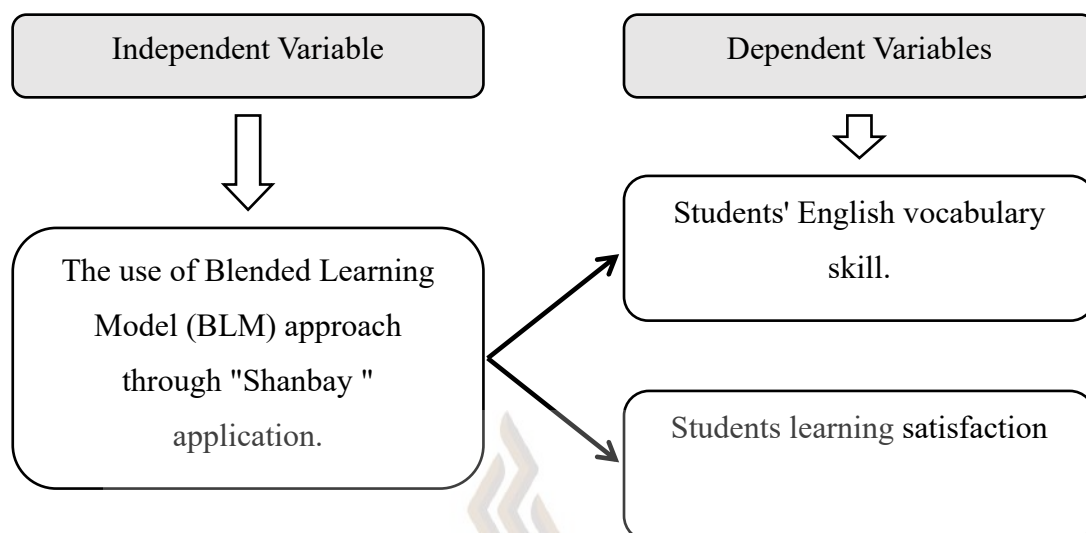


Figure 1.2 Illustrates the independent and dependent variables

1.8 Research Terminologies

Blended Learning Model (BLM) refers to the structured environment of traditional classroom teaching with the flexibility and personalization provided by online learning resources. This blend of methods is designed to provide a more personalized and adaptable educational experience that caters to the diverse requirements of students. In this study, the researcher applied the Shanbay application to not only instruct students on the effective use of mobile devices for vocabulary learning, practice, and encouragement, but also to teach vocabulary in a classroom setting.

Following the course, participants were required to utilize the newly acquired skill to independently acquire vocabulary through the Shanbay application, thereby demonstrating their learning outcomes through the application's community platform. The objective of this dual-faceted approach was to cultivate self-directed learning abilities and autonomy among students by incorporating initial guided learning in a structured environment and subsequent autonomous online practice.

The Blended Learning Model (BLM) integrates the extensive capabilities of online technology with the interactive engagement of in-person

instruction. It enables the conduct of educational activities at a variety of times and locations, thereby improving the accessibility and continuity of learning. Participants utilized the Shanbay application for online learning during the experiment, participating in interactive discussions with both students and instructors through the application's platform. This collaborative digital environment facilitated real-time communication, peer review, and cooperative problem-solving, thereby enhancing the learning experience.

This model provides personalized support that promotes independent learning and collaboration through interactive participation and extracurricular practice. Individualized learning plans were established by participants, who customized the intensity of their study sessions, the specific vocabulary they focused on, and their preferred learning times to align with their personal learning objectives and English vocabulary skill levels. This customization guaranteed that the learning journey of each student was perfectly aligned with their individual requirements and objectives.

Additionally, the integration of both online and offline learning environments afforded students a plethora of opportunities to participate in interactive practice and receive direct feedback from both instructors and peers. The dynamic and interactive classroom environment was substantially enhanced by this dual learning mode, which also influenced student engagement in English as a Foreign Language (EFL) classes. Enhanced learning outcomes in vocabulary acquisition and beyond were the result of the comprehensive learning ecosystem that was established by the combination of traditional teaching methods and personalized digital tools such as the Shanbay application. This ecosystem positively influenced students' motivation and engagement levels.

English vocabulary skill refers to a person's ability to master English vocabulary, including its breadth and depth, as well as the ability to understand and apply vocabulary correctly. This will be measured through a pre-test and a post-test.

Shanbay Application is a mobile application launched by Shanbay English to help users improve their English. The application provides users with effective English learning tools through features such as personalized learning plans, rich learning resources, game-based learning models and community interaction functions.

Students' Learning Satisfaction refers to students' contentment with their learning experience and environment. This study focuses on the interest, motivation, engagement, and efficiency of grade 8 students using Blended Learning Model (BLM) approach via the Shanbay application to enhance their English vocabulary skill. The skill of students' learning satisfaction will encompass three key aspects: interest and motivation, engagement, and efficiency within the BLM approach through Shanbay application. Satisfaction questionnaire will be used to measure students' learning satisfaction.

Grade 8 Students refer to grade 8 junior high school students in a private school in Heze, Shandong, China. This study includes 30 students from a total of 288 students in grade 8 through a simple random selection.

1.9 Significance of the Study

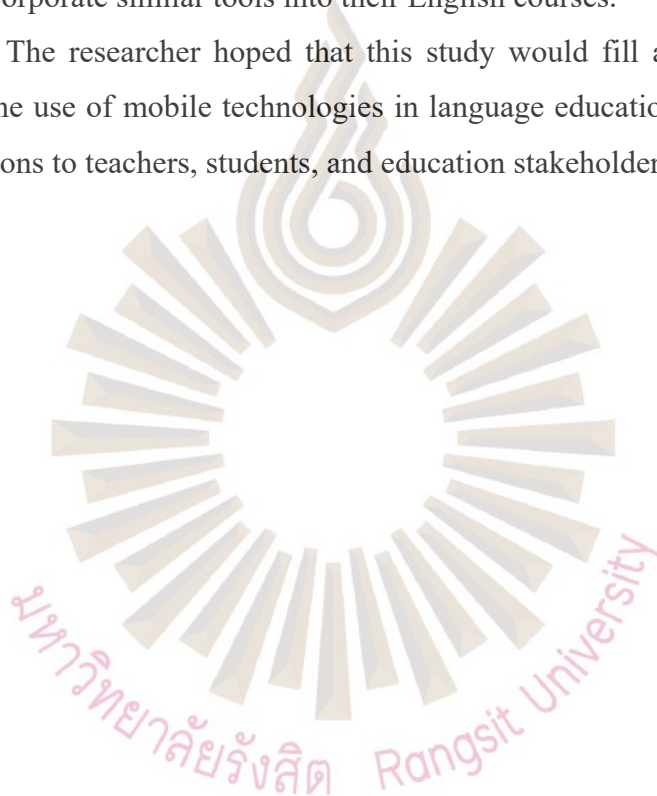
1.9.1 This study was to introduce Blended Learning Model (BLM) approach in the classroom through the Shanbay application. This approach helped students access learning materials anytime and anywhere, improving learning flexibility. A personalized learning environment supported students according to their own needs, allowing them to choose learning content based on their learning rhythm and interests. The real-time feedback and skill mechanism assisted students in adjusting their learning strategies promptly. Interactivity and collaboration within the application promote communication and cooperation between students, encouraging long-term enthusiasm for learning English.

1.9.2 This study sought to combine digital tools and offline resources to create an engaging multi-modal learning experience, thereby increasing student satisfaction. It was unique in its focus on a specific tool within the Chinese educational

context, seeking to understand Chinese students' attitudes toward this application for deeper insights into its strengths and areas for improvement.

1.9.3 The researcher hoped that this study would provide valuable references for English educators looking to integrate mobile technology into their teaching practices. Positive findings regarding the improvement of students' vocabulary skill and learning satisfaction through the introduction of Blended Learning Model (BLM) approach in the classroom via Shanbay application were expected to inspire other teachers to incorporate similar tools into their English courses.

1.9.4 The researcher hoped that this study would fill a gap in the existing literature on the use of mobile technologies in language education and provide useful recommendations to teachers, students, and education stakeholders.



CHAPTER 2

LITERATURE REVIEW

This chapter provides a brief overview of essential concepts and related literature to establish a theoretical foundation for the study. Integrating the context of Chinese English vocabulary instruction, the English vocabulary skill standards for Chinese grade 8 students, the theoretical background of English vocabulary, the Blended Learning Method, Mobile learning, the Shanbay application, the application of Mobile Blended Learning in language education, and student satisfaction with learning outcomes. This chapter additionally examines relevant theories and both domestic and international research findings related to this research.

2.1 Teaching and Learning English as a Foreign Language in China

In today's increasingly globalized world, the international influence of English and the number of learners continue to grow. Since the onset of the 21st century, as China has accelerated its integration into economic globalization and the internationalization of its linguistic environment, the number of Chinese learners of English and their proficiency has undergone significant transformations, which has facilitated the exchange and integration of Chinese and foreign cultures. Such critical change is closely linked to the ongoing development of English education and research, including the expansion of English language courses in primary schools and the implementation of all English instruction in universities.

However, there are some challenges in teaching English as a foreign language (EFL) in China. First, the lack of exposure to English-speaking environments poses a significant challenge for Chinese students, often leaving them feeling insecure about using English in practical situations. Secondly, the scarcity of adequate English

teaching resources is another issue. Many schools lack appropriate materials and equipment, hindering effective English instruction. In addition, the varying levels of teaching expertise and methodologies among English teachers present challenges. Some teachers may lack professional knowledge and teaching experience, resulting in subpar teaching quality.

To address these issues, several strategies have been implemented to enhance English education in China. First, the government has increased investment in English education, providing more teaching resources and training opportunities. Secondly, some schools have begun to adopt more modern and interactive teaching methods, such as task-based language teaching. This teaching method focuses on students' practical application abilities and improves students' language abilities through actual situations and tasks. In addition, schools also encourage students' participation in activities such as English corners and English competitions, providing more opportunities for English practice. Despite these efforts yielding some positive outcomes, several challenges remain. For example, the uneven distribution of English teaching resources and insufficient teacher training remain a problem. Moreover, the evaluation system for English teaching requires further improvement to ensure the enhancement of teaching quality. Overall, while teaching and learning English as a foreign language in China still faces some challenges, it also presents numerous opportunities for progress.

2.2 Chinese English Vocabulary Standards for Grade 8 Students

Navigating the landscape of vocabulary acquisition presents a nuanced challenge for grade 8 students in China, encompassing various educational and developmental considerations. Research indicates that the transition from elementary to middle school marks an increase in academic demand, with the expectation for students to master a more intricate lexicon. The National Reading Panel underscores the symbiotic relationship between vocabulary expansion and reading comprehension, noting that a lack of lexical knowledge can significantly hinder academic progress. A formidable obstacle in this odyssey is the sheer volume of novel words that beckon

students. According to the Common European Framework of Reference for Languages, learners at the B1 echelon, often commensurate with Grade 8, ought to possess a vocabulary repertoire of approximately 2,000-word families. The "Compulsory Education English Curriculum Standards" (2022 version) specifies that junior high school students should be able to communicate and express themselves using about 1,800 to 2,000 words, along with a certain number of idioms or fixed collocations (Ministry of Education of the People's Republic of China, 2022).

2.3 English Vocabulary

2.3.1 Definition of English Vocabulary skill

English vocabulary skill refer to the ability to recognize, understand, and use a wide range of English words effectively in various contexts. This skill includes not only a broad vocabulary base but also a deep understanding of word nuances, connotations, and appropriate usage in different settings—formal, informal, academic, or colloquial.

Establishing a standard for English vocabulary skills is essential in education and language acquisition. Firstly, it serves as a benchmark against which learners' skills can be measured, ensuring they meet specific language requirements necessary for academic, professional, and social interactions. Additionally, this standard guides curriculum developers and educational institutions in designing course materials that comprehensively cover essential vocabulary, thereby enhancing the quality of language instruction.

Moreover, setting a standard for English vocabulary skills aims to improve learners' communication abilities, enabling them to express themselves effectively and confidently. This skill standard also facilitates a more accurate skill of students' vocabulary knowledge and ability to use English appropriately, which is crucial for academic success and professional opportunities.

2.3.2 The challenges of teaching and learning English Vocabulary

As vocabulary forms the cornerstone of language acquisition, investing in effective teaching and learning strategies is essential for enhancing language skills (Koleini et al., 2024). The challenges of teaching and learning English vocabulary are numerous and varied, impacting teachers and learners in distinctive ways. English possesses an exceptionally large vocabulary, with some estimates suggesting there are over a million words. For learners, this can be overwhelming, as they must not only learn new words but also understand their nuances, multiple meanings, and correct usage. The complexity of English spelling and pronunciation is notoriously irregular. This lack of a one-to-one correspondence between sounds and letters can confuse learners, making it difficult to learn and remember new words. Vocabulary is not used in isolation but within specific cultural and contextual frameworks. Learners often struggle to understand how to use words appropriately in different contexts, such as formal versus informal settings. The effectiveness of vocabulary teaching is heavily influenced by the methods and resources available, as traditional rote memorization techniques are often ineffective. Maintaining long-term motivation during the vocabulary acquisition process is also challenging for learners. Retaining learned vocabulary without regular use and reinforcement can be difficult, and accurately assessing a learner's vocabulary knowledge is crucial for tracking progress and tailoring future learning. However, traditional testing methods may not fully capture a learner's functional vocabulary usage.

Given the paramount significance of vocabulary mastery among grade 8 students, it is imperative to scrutinize the efficacy and constraints of prevailing methods of vocabulary acquisition. Traditionally, vocabulary assimilation has relied heavily on rote memorization, deployment of flashcards, repetitive drills, and engagement in numerous written and oral exercises. While these techniques have roots in early behaviorist theories, where repeated exposure and practice were deemed conducive to learning, contemporary research suggests their limitations in fostering enduring retention and deep comprehension of vocabulary. Recent studies underscore the effectiveness of contextualized learning and active student participation in

constructing meaning, aligning with the premises of constructivist learning theories. However, the classroom milieu often constrains authentic language exposure and contextual cues available to students, thus impeding optimal vocabulary retention.

The advent of technology in vocabulary learning has witnessed remarkable advancements, introducing methodologies like spaced repetition software, online gamification, and mobile applications such as Duolingo and Babbel. These digital platforms exhibit promise in enhancing student engagement and facilitating personalized learning trajectories. Nevertheless, empirical evidence regarding their efficacy compared to traditional methods remains a subject of ongoing scrutiny. For instance, a comparative analysis conducted by Smith (2020) unveiled that students utilizing mobile applications for vocabulary enrichment outperformed their counterparts utilizing conventional methods by a margin of 20% in retention tests. Nonetheless, studies like those by Jones (2021) discerned potential biases in such analyses attributable to variations in students' pre-existing digital literacy proficiencies and motivational levels.

2.3.3 Students' Learning Satisfaction in English Vocabulary Learning.

In English language education, assessing student satisfaction with vocabulary learning holds paramount importance. It serves as a compass guiding educators to navigate the turbulent seas of teaching methodologies, course content, and learning resources, ensuring a fruitful voyage for both teachers and learners alike.

Firstly, we must examine the adaptability and effectiveness of teaching methods. As the saying goes, there are different strokes for different folks. By assessing various pedagogical strategies such as direct instruction, task-based learning, or gamification, we can gauge their impact on student motivation and vocabulary mastery. It's essential to ascertain whether these methods meet diverse learning styles and needs.

Next, the relevance and richness of course content are important considerations. A comprehensive evaluation should assess whether the curriculum covers vocabulary that

is both academically enriching and practically applicable to students' future academic or professional pursuits. Integrating vocabulary instruction with real-life scenarios enhances its utility and appeal, fostering a deeper engagement with the learning process.

Accessibility and diversity of resources play a pivotal role in shaping students' learning experiences. From textbooks to online resources to multimedia content, the quality and variety of learning materials significantly influence student satisfaction. It's imperative to ensure that these resources are easily accessible and support a range of learning preferences and modalities.

Teacher support and interaction constitute another crucial factor. How teachers facilitate vocabulary learning, including the timeliness and effectiveness of clarifications and feedback, significantly impacts student satisfaction. The frequency and quality of interaction between teachers and students, and how it fosters learning, are key considerations in these skills.

Creating a conducive learning environment and fostering a positive classroom atmosphere are crucial for enhancing student satisfaction. An environment that encourages active participation and collaborative learning contributes to a vibrant learning culture where open communication and tolerance of mistakes prevail.

Moreover, students' perceptions of their progress and achievements cannot be overlooked. Evaluating their self-perceived progress in vocabulary learning and corresponding satisfaction provides valuable insights. Assessing students' performance in vocabulary tests and real-life applications, coupled with their self-skill achievements, paints a holistic picture of satisfaction levels.

Lastly, feedback mechanisms and pathways for improvement are indispensable. Providing students with opportunities to offer feedback and actively incorporating it into teaching adjustments are vital for continuous improvement. Effective mechanisms for collecting and responding to student opinions must be in place to ensure ongoing enhancement of the learning experience.

In conclusion, understanding students' satisfaction with English vocabulary learning involves several critical factors. By meticulously evaluating teaching methods, course content, resources, teacher support, learning environment, self-perceived progress, and feedback mechanisms, educators can gain valuable insights into students' needs and expectations. Armed with this knowledge, they can tailor their teaching strategies and curriculum designs to elevate students' satisfaction and improve their English vocabulary skills.

2.4 Theoretical Foundations of Mobile Learning

2.4.1 Definition of mobile learning

Mobile learning refers to learning facilitated by mobile devices, including smartphones, tablets, and other portable electronic devices (Krotov, 2015). It encompasses not only the use of technical tools but also a transformation in learning methods. It is a new learning model that integrates technology with educational theory and practice (Rafiq, Hashim, & Yunus, 2021; Sönmez, Göçmez, Uygun, & Ataizi, 2018).

With the rapid development of mobile communication technology and portable devices, mobile learning has become a focus in educational technology (Criollo-C, Luján-Mora, & Jaramillo-Alcázar, 2018; Rafiq et al., 2021). It allows learners to access educational resources, communication, and learning activities anytime and anywhere (Aresta, Pedro, & Santos, 2015). The core of mobile learning lies in its flexibility and convenience, enabling learners to study at their own pace and according to their interests. More than just a technical means, it embodies a learning concept, emphasizing the relevance of education to real life and practice (Rafiq et al., 2021). Through mobile learning, learners can acquire knowledge, engage in practice, and exchange experiences in a real environment, thereby building their learning system more effectively.

2.4.2 Advantages of mobile learning

Mobile learning provides learners with a flexible and convenient learning method, unconstrained by time and space (Sönmez et al., 2018). The advantages of mobile learning can be discussed from various aspects:

2.4.2.1 Mobile learning creates an environment where learning can be done anytime, anywhere. (Sönmez et al., 2018) pointed out the learners can use their mobile devices to access learning materials anytime, anywhere, including their home, office, jungle, or mountaintop.

2.4.2.2 Mobile learning provides a personalized learning experience. Content and learning paths can be adjusted to meet learner needs and preferences, thereby improving learning efficiency (Cho, Lee, Joo, & Becker, 2018).

2.4.2.3 Mobile learning promotes interactivity and collaborative learning. Through social media tools and online forums, interactions among learners and between learners and teachers are enhanced, forming rich learning communities.

2.4.2.4 Mobile learning provides an instant feedback mechanism. Learners receive automatic scoring on assessments or timely responses from instructors, helping them gauge their understanding and adjust their learning strategies accordingly.

2.4.2.5 Additionally, Mobile learning integrates diverse media resources, including text, pictures, audio, video, and other formats, making the learning content more vivid and interesting.

2.4.2.6 Finally, mobile learning platforms usually have data tracking and analysis functions, recording learners' learning trajectories and performance changes, helping teachers and educational institutions better design and adjust instruction.

While mobile learning offers numerous advantages, it also faces challenges related to technology, content quality, and learner adaptability. Effectively solving these problems will further promote mobile learning, positioning it as a vital component in future education reform. With the integration of technologies such as

artificial intelligence, big data and other technologies, the future of mobile learning will be more personalized, intelligent and efficient, providing fairer and more convenient educational opportunities around the world.

2.4.3 Theoretical model of mobile learning (M-learning)

The theoretical model of mobile learning revolves around several key concepts, including situated learning theory, collaborative learning, autonomous learning, and constructivist learning theory.

Situated learning theory posits that learning occurs in a specific situation and is closely related to those situations. In mobile learning, learners engage with content in various real-world situations, combining learning content with actual situations to enhance the authenticity and relevance of learning (Criollo-C et al., 2018). The article explains DiedricAR, a mobile Augmented Reality system designed for teaching Descriptive Geometry (de Ravé, Jiménez-Hornero, Ariza-Villaverde, & Taguas-Ruiz, 2016)

Collaborative learning emphasizes interaction and cooperation in the learning process. Through the connection of mobile devices and the Internet, mobile learning provides learners with a platform for real-time communication and collaboration. This enables students to discuss, share resources, and solve problems with each other, thereby fostering a more social learning environment.

Autonomous learning highlights learners' initiative and self-direction. (Boroughani, Behshad, & Xodabande, 2023) pointed out Mobile learning supports personalized learning paths and rhythms, allowing learners to choose content based on their interests and needs. This flexibility greatly enhances learning autonomy.

Constructivist learning theory asserts that knowledge is actively constructed by learners rather than passively received. In a mobile learning environment, learners build their knowledge systems through interaction, practice, and reflection. (Jing, 2023)

pointed out mobile learning devices facilitate rich interactive activities that support active knowledge construction.

Overall, these theoretical models of mobile learning collectively embody its core features: flexibility, portability, and situational awareness. They are significant in guiding the educational practice, technology development, and related policy formulation of mobile learning.

2.4.4 Advantages and Limitations of Mobile-assisted Vocabulary Learning (MAVL)

The integration of mobile learning into vocabulary acquisition marks a significant shift in educational approaches. This modern method offers learners unprecedented accessibility, context-sensitive learning experiences, and customized content delivery. The primary advantage of Mobile learning lies in its omnipresence, enabling learners to immerse themselves in the target language without constraints. According to Stockwell (2010), students using vocabulary apps on mobile platforms significantly expand their vocabulary exposure compared to traditional classroom settings.

Research by (Xodabande, Hashemi, & Technologies, 2023) emphasizes the mobility of devices in facilitating on-the-go learning and embedding new vocabulary within relevant real-world contexts. Furthermore, the interactive features of mobile devices align with Vygotsky's sociocultural theory (1978), promoting interactive and collaborative learning environments. By leveraging social networking tools and synchronous communication, learners can co-construct knowledge with peers, enhancing vocabulary retention, as noted by Gromik (2012).

Personalization is another cornerstone of mobile learning, empowering learners to adapt their pace and select from diverse applications that cater to different learning preferences and skill levels. This flexibility enhances learner autonomy and motivation, as corroborated by (Boroughani et al., 2023). Additionally, integrating

gamification elements into mobile applications can significantly boost the motivational aspects of vocabulary learning (Chen, Liu, & Huang, 2019; Wardaszko, Podgórski, & Gaming, 2017).

Despite these numerous benefits, mobile learning faces challenges. In mobile-assisted learning, students may face unstable network connections, which can affect their learning experience and effectiveness (Xodabande et al., 2023). Furthermore, the effectiveness of mobile learning hinges on the quality of instructional design. Poorly designed apps may oversimplify language learning in Hsu, Ku, Zanto, and Gazzaley (2015) meta-analysis, which found that some applications offer no pedagogical advantage over traditional methods.

Cognitive challenges accompany mobile learning as well. The fragmented user experience, with frequent interruptions and divided attention, can hinder deep learning, as (Chen & Yan, 2016) study suggests, pointing out that distractions from notifications and multitasking may impede vocabulary consolidation.

Practical implementation of mobile learning into formal curricula presents challenges as well. (Şad & Göktaş, 2014) identifies teacher beliefs and technological skills as barriers to the effective incorporation of mobile learning strategies. (Krotov, 2015) pointed out that some teachers resist and forbid the use of mobile devices for learning in class.

In conclusion, while mobile learning offers significant advantages such as accessibility, contextual learning, collaborative opportunities, and personalization, it is crucial to address inherent limitations. Overcoming issues related to the digital divide, ensuring high-quality instructional design, managing cognitive load, and effectively integrating mobile learning into traditional educational frameworks are essential steps. Continued research and development efforts aimed at optimizing mobile learning environments and instructional designs, along with initiatives to bridge technology gaps, are necessary to maximize the efficacy of mobile learning in vocabulary acquisition.

This version retains the key points while enhancing readability and clarity by breaking down the information into distinct paragraphs focused on specific aspects of mobile learning and its challenges.

2.5 Shanbay Application

2.5.1 Introduction to Shanbay Application

Shanbay is an application that can be used on mobile phone or computer, It aims to help learners learn English (Guo et al., 2022; Hong & Stapa, 2023; Li, 2018). Since its launch, the Shanbay application has rapidly gained popularity among Chinese English learners, especially middle school students, with its unique learning methods and diverse functionalities. Launched in 2013, Shanbay is specifically designed to enhance English vocabulary acquisition interestingly and efficiently (Li, 2024; Hong & Stapa, 2023). Shanbay application shows its uniqueness in many aspects: it adopts a personalized learning plan to analyze the user's learning progress, memory curve, and forgetting rules through algorithms, and tailors the learning plan for the user, thereby improving the pertinence and efficiency of learning (Zhou & Liang, 2017). The application provides a wealth of learning resources, including example sentences, synonyms, antonyms, pronunciation, pictures, etc., providing learners with multiple perspectives to deepen their understanding and retention of vocabulary Hong & Stapa (2023). Additionally, the community feature of Shanbay is another significant aspect, allowing users to share experiences and answer each other's questions, fostering a collaborative learning environment (Jing, 2023; Li, 2018). Data shows that Shanbay application has a high download volume as an educational application (Li, 2024). (Guo et al., 2022) shows that continued use of Shanbay has led to notable improvements in users' English vocabulary, along with increased interest and learning efficiency. Overall, transcends the role of a conventional vocabulary learning tool. Its rich learning resources, personalized learning plans, gamified learning mode and community interaction foster a dynamic learning ecosystem, showcasing immense potential for enhancing vocabulary skill among Chinese grade 8 students through mobile Blended Learning Model (BLM).

2.5.2 Advantages of Shanbay Application

The Shanbay application features a personalized learning path that intelligently recommends tailored learning plans and vocabulary challenges based on the learner's historical performance and needs (Jing, 2023). For example, if a learner reaches 90% mastery of a particular difficulty level, the system adjusts to suggest more challenging tasks. (Zhou & Liang, 2017) pointed out Shanbay optimizes the memory curve by introducing a spaced repetition algorithm and dynamically modifying the review frequency and content according to individual learning performance to optimize review effectiveness. (Jing, 2023) point out that Shanbay was mentioned as an English learning software application based on a multimodal model. Its extensive use of multimedia resources, such as audio, pictures, example sentences, etc., also strengthens situational memory in vocabulary acquisition, making the learning process both enjoyable and practical (Hong, 2021). Additionally, Shanbay supports community-based learning, allowing users to exchange experiences and share methods through the app's community feature, which cultivates a positive learning atmosphere and mutual aid mechanism (Li, 2018; Li, 2024). Collectively, these features highlight the unique advantages of the Shanbay application in language learning, providing users with an efficient, interactive, and pleasant learning experience.

2.5.3 Examples of Application of Shanbay in Teaching

Hong and Stapa (2023) surveyed 138 Chinese English learners, which revealed that adopting English learning applications, such as Shanbay can considerably improve Chinese students' English learning performance, particularly in terms of learning motivation, participation, and learning effectiveness. The application's interactive and gamification features help with memory consolidation.

Li (2024) concluded from the questionnaire that Shanbay enhanced the vocabulary acquisition of Chinese EFL learners through note-taking functionality,

interactive collaboration, effective task design, and information sharing, thereby facilitating their vocabulary mastery in a more enriched learning environment.

Zhou and Liang (2017) set up a study group in Shanbay application and invites 16 students to join. Students need to spend time browsing the news and memorizing words according to their learning goals every day. If they reach their goals, they can mark it on the digital calendar in the app. Every 50 consecutive days of marking will receive a virtual medal from the Shanbay app organizer, which is a good motivation for students and helps them build confidence and perseverance in second language learning.

Research on the teaching effectiveness of the Shanbay application has shown encouraging results. An empirical study on junior high school students demonstrated this effectiveness in the context of English vocabulary acquisition. The study selected 100 grade 8 students and randomly assigned them into an experimental group and a control group. The experimental group used the Shanbay application for vocabulary learning, while the control group relied on traditional vocabulary learning methods. After a one-semester research period, the learning effectiveness was evaluated through pre-tests and post-tests. The results showed that the experimental group significantly outperformed the control group, with an average vocabulary improvement of 20% greater than that of the control group in the post-test.

2.5.4 Steps to Use the Shanbay Application

The steps to use the Shanbay application used in this study guide are as follows:

2.5.4.1 Download the Shanbay Application and Register an Account.



Figure 2.1 Step 1 of Shanbay application

Source: Researcher

Participants can download the application to their mobile phone or iPad by accessing the app store. Once the installation is complete, open the Shanbay application and select the "Register" button on the homepage. Here, participants can choose to log in using their mobile phone number, email, WeChat, and QQ account. After logging in, the homepage of the Shanbay application will be displayed. Participants should familiarize themselves with the four major modules of the Shanbay application: "Words", "Courses", "Discovery" and "My".

In the "Word" module, participants can learn and review vocabulary through the word books they choose as well as the newly collected word books, and download PDF files of daily words.

The "Courses" module provides recommendations for paid vocabulary courses tailored for participants.

In the "Discover" module, the Shanbay application will recommend relevant free courses or learning content based on participants' learning preferences and levels. These recommendations are personalized, taking into account participants'

word learning history, interests, learning speed, and other factors, to help users find suitable learning resources for listening, speaking, reading, and writing. The "Discovery" module also features a community interactive platform, where participants can join word learning groups, engage in word challenges, exchange experiences with fellow learners, share resources, and pose or answer questions, fostering collaborative learning and motivation.

In the "My" module, participants can modify vocabulary books, view word notes, analyze word mistakes, view learning data, and set daily, weekly, or monthly learning goals to track their own learning progress. This feature helps participants maintain motivation, improve efficiency, and enjoy the vocabulary learning process.

2.5.4.2 Set Up Vocabulary Books as Needed.



Figure 2.2 Step 2 of Shanbay application

Source: Researcher

After logging in, participants access the "Learning Books" selection on the "Home Page". In alignment with our research objectives, they select the "Renmin Education Press Edition Junior High School Grade 8 Vocabulary (Volume 2)". Then configure a tailored learning plan, setting parameters such as daily vocabulary

goals, review frequency, learning mode (reading or spelling), word pronunciation (American or British pronunciation), and enabling options for automatic pronunciation of words and example sentences. After completing the setup, you can return to the homepage to begin learning vocabulary.

2.5.4.3 Pre-learning Word Skill Test.



Figure 2.3 Step 3 of Shanbay application

Source: Researcher

Before beginning formal learning with the Shanbay application, participants took a vocabulary pre-test in reading and listening to assess their initial vocabulary level before intervention. The Shanbay application requires at least 35 words to be tested in each section to ensure reliable results. After the test, the app's AI generates an individualized skill report, indicating the participant's vocabulary level.

2.5.4.4 Study and Review Vocabulary.

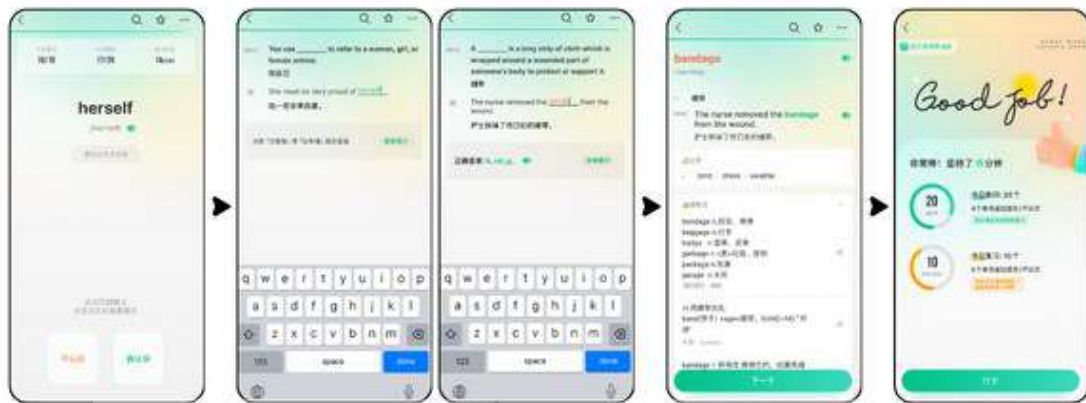


Figure 2.4 Step 4 of Shanbay application

Source: Researcher

After completing the basic setting and pre-test, participants enter the formal vocabulary learning phase. The Shanbay application is a structured approach of prediction, learning, consolidation, summarization, and review, offering comprehensive practice across listening, speaking, reading, and writing skills for vocabulary. Throughout the learning process, words and example sentences are pronounced automatically. Participants may also click the pronunciation button to hear words and sentences multiple times if needed. In the consolidation phase, users engage in reading and cloze exercises, reinforcing practical vocabulary application. If mistakes occur, the Shanbay application provides pronunciation and vocabulary tips to help participants review new words. In the summarization phase, the Shanbay application offers example sentences, synonyms, morphological synonyms, different part-of-speech changes, and relevant root words and phrases to deepen understanding of the vocabulary. After completing a session, participants receive feedback on their learning, review progress, and any errors. Additionally, they can share their learning achievements by clicking the button below.

2.5.4.5 Review and Consolidation-Shanbay Application

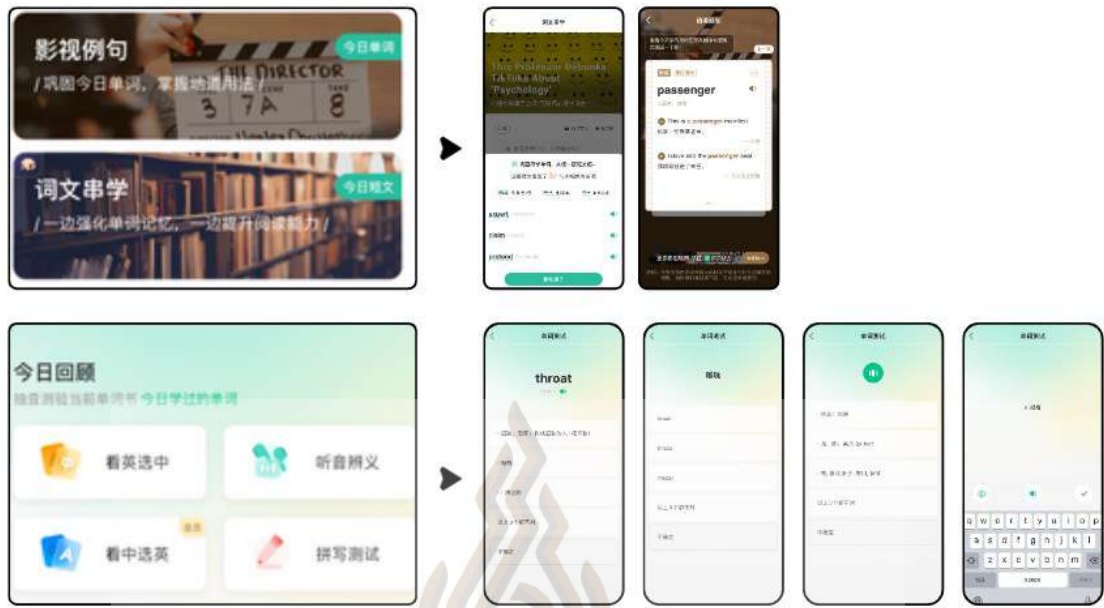


Figure 2.5 Step 5 of Shanbay application

Source: Researcher

After completing the daily learning tasks, participants can see the review materials generated by AI intelligence on the "Home Page" to reinforce the new words learned that day. They can review the words using various methods, such as movie lines, AI-generated short articles, Chinese-to-English word selection, dictation word selection, listening and writing words, and comprehensive review of vocabulary through listening, speaking, reading, and writing.

2.5.4.6 Review and Consolidation- Download PDF



Figure 2.6 Step 6 of Shanbay application

Source: Researcher

After participants complete the daily learning tasks, AI generates downloadable PDF review materials on the home page, including word lists, dictation sheets, Ebbinghaus forgetting review sheets, and flashcards. Participants can download these resources and complete corresponding exercises after class.

2.6 Application of Mobile Blended Learning in Language Education

2.6.1 Definition of Blended Learning Model

The Blended Learning Model (BLM), as a contemporary education method, combines traditional face-to-face teaching with modern online learning technologies, which gives teachers and students a more flexible way of learning, enabling them to conduct educational activities at different times and locations. This model fosters a more inclusive and adaptive learning environment by integrating diverse learning resources and instructional methods to enhance both the learning process and outcomes. According to Graham (2006), BLM is more than a simple combination of traditional and technical teaching methods—it is a strategic integration of teaching strategies and processes to maximize educational quality and effectiveness. BLM encompasses several core types, including the rotational model, self-paced model, flexible model, and online-driven model. In the rotational model, students alternate between different learning sites under teacher guidance. The self-paced model allows students to select from various online courses, offering supplementary resources or courses as needed. The flexible mode centers around online learning while providing optional on-site support; whereas the online-driven mode relies entirely on online instruction, with face-to-face sessions if necessary. Research indicates that students in BLM generally achieve higher academic performance compared to those in purely online or traditional classroom settings. This finding highlights the effectiveness of blended learning in improving academic performance, as online components enable personalized learning tailored to individual student needs, fostering independence and self-directed learning skills. Despite its advantages, blended learning also presents challenges, including the need for robust technological infrastructure, adaptation of teacher and student to new models, and effective integration of online and offline

teaching elements. Therefore, educators and policymakers need ongoing professional development and strategic adjustments to ensure successful implementation and continued improvement of BLM. Overall, as a modern teaching model, BLM has gained widespread adoption globally, especially in higher education and further education. With the advancement of technology and evolving educational needs, BLM is expected to become a pivotal trend in education, creating new possibilities and opportunities for education.

2.6.2 Vocabulary Teaching Methods under Blended Learning Model

With the rapid development of information technology, especially the widespread application of mobile internet technology, the traditional education model is undergoing a profound transformation. In language learning, Mobile Blended Learning (MBL) has emerged as a significant trend, combining the advantages of online and face-to-face learning to offer learners a more flexible and personalized learning experience. When applied to vocabulary instruction, the blended learning models present unique advantages and potential for enhancing vocabulary acquisition.

The Blended Learning Model (BLM) mainly refers to an education model combining classroom teaching with online learning. It leverages the extensive resources available through modern technology while retaining the interaction and feedback mechanism of face-to-face teaching. In vocabulary teaching, this model usually includes independent vocabulary study and practice via online platforms or apps, supplemented by teacher guidance and peer interaction in class to reinforce memory and application.

Research shows that vocabulary teaching under the Blended Learning Model (BLM) can effectively improve students' learning motivation and participation. Mobile applications allow learners to learn at their preferred pace and schedule, fostering a flexible learning environment that heightens interest and motivation. At the same time, mobile applications are usually equipped with rich multimedia materials, such as pictures, audio and video, etc., which can attract learners visually and aurally, making

vocabulary acquisition more dynamic and appealing. These applications also provide instant feedback and progress-tracking functions to help learners better monitor their learning progress, thereby motivating them to continue learning.

Vocabulary teaching under Blended Learning Model (BLM) not only improves learning efficiency but also enhances learning effects. Some studies comparing traditional teaching and Blended Learning Methods indicate that students who adopt blended learning have significantly improved their vocabulary growth, retention, and application. By personalizing and visualizing the learning process, Blended Learning Model (BLM) allows learners can select materials that meet their specific needs and review challenging areas repeatedly, increasing learning efficiency. The combined online and in-class approach provides timely guidance from teachers and support from peers, reinforcing and deepening the learning experience.

Although the Blended Learning Model (BLM) shows many advantages in vocabulary teaching, it also faces some challenges. Learners need strong self-regulation and time-management skills to remain consistent with online learning tasks, as neglecting these can hinder overall progress. It is a challenge for teachers to invest more time and effort in designing courses and managing learning platforms when implementing blended learning.

The vocabulary teaching method under the Blended Learning Model (BLM) makes use of modern information technology to overcome the limitations of traditional teaching. By combining online learning resources and face-to-face teaching activities, this model effectively enhances student interest, participation, and learning outcomes. Future research can further explore optimizing the Blended Learning Model to solve existing challenges, thereby maximizing application in vocabulary teaching.

2.6.3 Summary of Existing Research

In recent years, Mobile Blended Learning (MBL) has attracted much attention in language education. The Blended Learning Model (BLM) combines traditional

face-to-face teaching with mobile learning to create a flexible and interactive learning environment for learners.

Many scholars at home and abroad have conducted in-depth research on the effect of Blended Learning Model (BLM) in language learning, especially its impact on improving vocabulary learning ability. For example, Zhang, He, Huang, & Xie (2020) carried out a semester-long mobile blended learning experiment and found that students using MBL significantly improved their mastery and application of English vocabulary. This study revealed an average learning outcome increase of 25% among students using the Shanbay application in conjunction with face-to-face teacher guidance.

Similarly, research by Li (2021) indicated that in the mobile blended learning model, real-time feedback and personalized learning paths can effectively stimulate learning motivation, thereby further improving vocabulary learning efficiency. The study found that the average vocabulary test score of students in the experimental group was nearly 15 points higher than that of the control group.

These studies further verify the effectiveness of the Blended Learning Model (BLM) in promoting language learning, especially in vocabulary learning. However, current research also reveals challenges and limitations faced by the Blended Learning Model (BLM), such as device availability, network connection stability, and learning content adaptability, which may hinder its implementation. Therefore, future research needs to pay more attention to overcoming these challenges and optimizing mobile blended learning environments to better meet the needs of language education. Overall, mobile blended learning, as an emerging teaching model, has shown great potential and promising prospects in language education, especially in vocabulary learning.

2.7 Students' Learning Satisfaction

2.7.1 Definition of Students' Learning Satisfaction

Students' learning satisfaction refers to the extent to which students feel contented, fulfilled, or pleased with the different aspects of their educational experiences. This encompasses a wide array of factors including, but not limited to, the quality of teaching, the relevance and comprehensiveness of the curriculum, the availability and helpfulness of resources (such as libraries, labs, and online materials), the effectiveness of communication and feedback mechanisms, the learning environment (both physical and virtual), and the sense of personal achievement or academic progress they perceive through their studies.

Learning satisfaction is an important metric as it can significantly influence a student's motivation, engagement, academic outcomes, and overall well-being. High levels of satisfaction are often correlated with better academic performance, higher retention rates, and stronger alumni networks, while dissatisfaction can lead to disengagement, dropout, and negative word-of-mouth that can impact an institution's reputation and future enrollment.

Measuring student learning satisfaction typically involves surveys and feedback mechanisms that allow students to express their opinions on various aspects of their educational experience. These insights can help educators and administrators identify strengths and areas for improvement, leading to enhanced learning experiences, curriculum development, and student support services.

2.8 Related Theories

2.8.1 Constructivist Learning Theory

The Constructivist Learning Theory asserts that learners construct their own understanding and knowledge by actively engaging with the world around them and reflecting on these experiences. Central to this theory is the notion that learning is not simply the absorption of information, but rather a process of actively building knowledge within a specific context. This approach places significant emphasis on the social aspects and interactions within the learning environment, recognizing that individuals interpret and create their own understanding of reality.

Attributed to Jean Piaget, the origins of Constructivist Learning Theory are grounded in the belief that learners internalize knowledge through adaptation and the development of cognitive structures. Similarly, Lev Vygotsky's work underscored the vital role of social interaction and cultural context in cognitive development.

In the realm of vocabulary acquisition, the Constructivist Learning Theory proposes that meaningful learning occurs when students can connect new words with their existing knowledge and experiences, utilizing various cognitive strategies to comprehend and retain these terms. Rather than rote memorization, learners actively engage in processes such as categorizing related words, using them in context-rich sentences, or associating them with visual representations or abstract concepts.

Furthermore, the theory advocates for collaborative learning and dialogue as essential components of the learning process. Engaging in discussions and utilizing new vocabulary within a social context enhances understanding and retention. This emphasis on social interaction aligns with the features often found in mobile learning applications, which encourage communication and shared learning experiences among users.

Research has validated the effectiveness of constructivist-based instructional strategies in improving vocabulary acquisition. For example, collaborative tasks that involve new vocabulary have been shown to result in higher post-test scores compared to individual word study. Additionally, the implementation of mind-mapping, a tool aligned with constructivist principles, significantly enhances students' ability to recall and apply new vocabulary in varied contexts.

Mobile applications like Shanbay can potentially embody constructivist principles by offering personalized learning experiences, immediate feedback, and the ability to connect new words to personal experiences through images or contextual sentences. This harmonizes with the theory's emphasis on active engagement and interaction within the learning environment.

When evaluating the effectiveness of mobile applications through the lens of Constructivist Learning Theory, it is essential to consider empirical data demonstrating gains in vocabulary mastery. Studies have illustrated that mobile applications that facilitate a constructivist approach, such as those offering personalized learning paths and interactive exercises, contribute to students' expansion and depth of word knowledge.

In summary, Constructivist Learning Theory provides a robust framework for understanding how digital tools like the Shanbay application can enhance vocabulary acquisition. Educational strategies aligned with constructivist principles, including the use of mind-maps and peer interactions, are integral to designing mobile learning solutions targeting vocabulary mastery among Grade 8 students.

2.8.2 Technology-Enhanced Language Learning (TELL)

Technology-Enhanced Language Learning (TELL) is becoming an increasingly pivotal area within the field of applied linguistics, aiming to incorporate technological innovations into the teaching and learning of foreign languages. TELL capitalizes on the

interactive and multimedia capabilities offered by modern technologies to create a more engaging, personalized, and effective language learning experience.

At the core of Technology-Enhanced Language Learning (TELL) lies the principle of learner-centered education, which empowers learners by granting them greater control over their learning process. Through the integration of technology, TELL provides learners with opportunities to access a vast array of resources, engage in communication with others in the target language, and receive instant feedback on language exercises. This interactive nature of TELL tools allows learners to actively participate in their language learning journey, fostering a more active and engaged approach to language acquisition.

TELL encompasses a wide range of tools and platforms, including online dictionaries, digital textbooks, language learning software, mobile applications, and virtual reality environments. These tools often incorporate multimedia elements such as text, audio, visuals, and animations to simulate real-life language use scenarios. The multimodality of TELL not only facilitates the comprehension of language concepts but also enhances the retention of the learned material. For instance, studies have revealed that the utilization of video in language classes can result in higher levels of vocabulary and structure retention compared to traditional textbook-based methods. In fact, one study indicated an approximate 15% higher retention rate when using multimedia applications.

The advent of mobile technology has had a significant impact on TELL, leading to the emergence of Mobile-Assisted Language Learning (MALL) as a flourishing subset. MALL offers unparalleled flexibility and mobility, enabling learners to engage with language learning materials at any time and from any location. According to a survey conducted by the British Council, over 80% of English language learners find mobile applications to be a valuable supplement to their traditional language classes. Moreover, the incorporation of gamification elements within language learning apps has transformed mundane repetitive drills into engaging challenges, thereby increasing student engagement and motivation.

Social media platforms also play a vital role in TELL by creating opportunities for authentic communication in the target language. These platforms allow learners to interact with native speakers and peers, enabling them to practice and refine their language skills within a social context that mirrors real-life language usage. This exposure to natural language has proven to be particularly effective in developing fluency and fostering an understanding of cultural nuances.

However, the effectiveness of TELL is contingent upon various factors, such as learner attitudes, teacher expertise, and the quality of technological tools. A meta-analysis of TELL studies indicates that while TELL can significantly enhance language learning outcomes, the extent of improvement can vary widely depending on the implementation and integration of technology within the curriculum.

To harness the full potential of TELL within language pedagogy, teachers must adopt a pedagogical stance that prioritizes meaningful, context-based language use over decontextualized grammar drills. Ongoing professional development for educators is also crucial to ensure they remain up-to-date with the latest technological advancements and best practices for integrating them into language instruction.

In conclusion, Technology-Enhanced Language Learning represents a paradigm shift in the approach to language teaching and acquisition. With thoughtful implementation, TELL has the potential to provide learners with more autonomous, engaging, and effective language learning experiences. However, its success relies heavily on the purposeful integration of technology, guided by pedagogical theories and learner needs. As TELL continues to evolve, it presents exciting opportunities for enhancing the language learning landscape, while also posing challenges that demand careful navigation by both educators and learners.

2.9 Review of Related Research

2.9.1 Application Research of MAVL at Home and Abroad

With the rapid development of mobile technology, especially the widespread popularization of smart mobile devices and the rapid advancement of network technology, Mobile-assisted Vocabulary Learning (MAVL), as an important part of modern distance education, is becoming a hot spot in the field of language learning. Different from traditional computer-assisted language learning (CALL), MAVL emphasizes learning anytime and anywhere through mobile devices such as smartphones and tablets. Research in recent years has shown that MAVL not only provides a more flexible and personalized learning method, but also helps improve learners' learning motivation and participation.

In China, researchers generally pay attention to the application of MAVL in vocabulary and listening learning. For example, Sun and Chen (2016) research found that in the process of using MAVL for English vocabulary learning, using mobile devices can effectively improve learners' memory efficiency and long-term retention rate. At the same time, research by Sha, Zhang, Li, and Guo (2019) shows that students who learn through mobile applications have obvious advantages in improving their listening comprehension abilities. Compared with traditional classroom environments, mobile learning environments are infinitely scalable and available at any time, providing a wider range of contextual situations and the possibility of real interaction for language learning.

In foreign countries, MAVL has a wider application scope, with special emphasis on the learner-centered independent learning model. Cavus and Ibrahim analyzed the teaching potential of MAVL and pointed out that it has brought innovations to language education, especially in promoting independent learning and collaborative learning. According to research by Uchikoshi, Yang, and Liu (2018), MAVL has also shown significant results in improving students' English speaking

ability. Students can better internalize language knowledge through simulated conversation exercises in real situations.

However, the application of MAVL also faces some challenges. For example, limitations of technical equipment and unstable Internet connections may affect the coherence and effectiveness of the learning experience. Teachers need to make some preparations when integrating MAVL into teaching activities, including making appropriate adjustments and optimizations to course content. In terms of improving the effectiveness of MAVL applications, teachers need to design teaching materials suitable for mobile learning environments and evaluate the feasibility of learning activities.

Overall, the application of MAVL shows a booming trend around the world. Data show that since 2010, the number of users learning languages through mobile devices has increased by more than 200% (Adkins & Unwin, 2015). However, we should also recognize the multiple challenges faced in the implementation of MAVL and use this as an opportunity to conduct more in-depth research to promote the widespread and effective application of MAVL in the field of language learning.

2.9.2 Mobile Blended Learning (MBL)

In recent years, Mobile Blended Learning (MBL) has attracted much attention in the field of language education. The Mobile Blended Learning (MBL) combines traditional face-to-face teaching with mobile learning to create a flexible and interactive learning environment for learners. Many scholars at home and abroad have conducted in-depth research on the effect of MBL in language learning, especially its impact on improving vocabulary learning ability. For example, Zhu et al. (2020) conducted a semester-long mobile blended learning experiment and found that students who used MBL significantly improved their English word mastery and application ability. This study shows that by using the Shanbay application accessed from mobile devices and combined with face-to-face teacher guidance, students' learning outcomes improved by an average of 25%. The research of Li and Qiu (2018)

shows that in the mobile hybrid learning mode, real-time feedback and personalized learning paths can effectively stimulate learning motivation, thereby further improving vocabulary learning efficiency. The study found that the average vocabulary test score of students in the experimental group was nearly 15 points higher than that of the control group. These studies further verify the effectiveness of the MBL model in promoting language learning, especially vocabulary learning. However, existing research also reveals challenges and limitations faced by the MBL model, such as device availability, network connection stability, and learning content adaptability. These factors may affect the implementation effect of the MBL model. Therefore, future research needs to pay more attention to how to overcome these challenges and how to further optimize mobile blended learning environments so that they can better serve the needs of language education. Overall, mobile blended learning, as an emerging teaching model, has shown great potential and broad development prospects in language education, especially vocabulary learning.



CHAPTER 3

RESEARCH METHODOLOGY

The aim of this study was to improve the English vocabulary skill and satisfaction of grade 8 Chinese students through the use of a Blended Learning Model via Shanbay application, which combined both online and offline learning modalities. This chapter offers a comprehensive explanation of the methodological components of this investigation. The researcher examined the following elements: the research design, the research location, the population and sample, the research instruments, the reliability and validity of these instruments, the data collection procedures, and the data analysis methods.

3.1 Research Design

This study employed a quasi-experimental research design, complemented by a quantitative approach, to decipher underlying trends and relationships within the data. Quantitative research adhered to the positivist paradigm, endorsing quantifiable objective truths expressed in numerical form to unravel, anticipate, or influence phenomena through the deployment of numerical data and statistical examination (Fryer, Larson-Hall, & Stewart, 2018). The methodology primarily depended on gathering quantitative data, such as numerical responses in satisfaction questionnaire, test results, and observation tallies, and reached conclusions by conducting statistical analysis (Jopling, 2019; Rahman, 2016). Quantitative research, as a systematic and unbiased methodology in education, effectively portrays research phenomena, yielding results that are both unbiased and scalable to broader populations, thereby minimizing effort and cost (Khatri & Karki, 2022).

According to the research objectives, this study focused on collecting quantitative data on the English vocabulary skill and learning satisfaction of grade 8 Chinese students before and after using Blended Learning Model (BLM) through Shanbay application. To uphold the reliability and validity of the data, the researcher employed English vocabulary skill tests and the learning satisfaction questionnaire as the data collection instruments. The English vocabulary skill tests included two parts: a pre-test and a post-test. The researcher analyzed the total score, mean score, and standard deviation of the English vocabulary skill tests both before and after the intervention to identify the improvement in the English vocabulary skill of grade 8 Chinese students during the pre-test and post-test implementation of Blended Learning Model (BLM) via Shanbay application. The researcher evaluated the responses (means) derived from the Likert scale questionnaire to investigate the learning satisfaction levels of grade 8 Chinese students pre-test and post-test with Blended Learning Model (BLM) through Shanbay application.

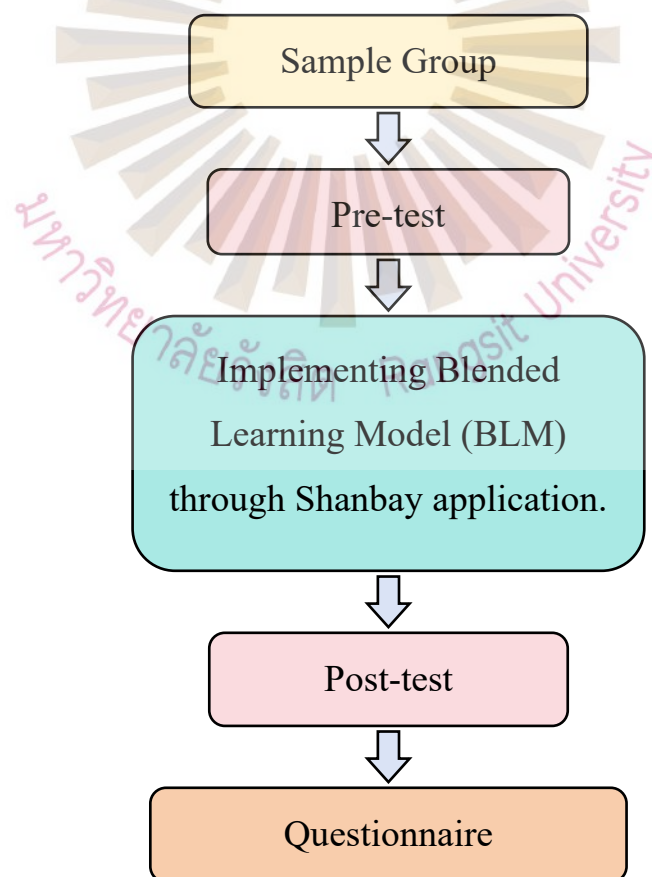


Figure 3.1 Below illustrates the research design of this study

3.2 Population and Sample

3.2.1 Location of the Study

The study was carried out at a private school located in the eastern portion of Shandong Province, China. The school was founded in 1997 and comprises both Primary School and Secondary School divisions, including grades 1 to 9. Based on the 2023 statistics, the school's student population exceeds 2,800, while the number of teachers amounts to 272. The school possesses state-of-the-art technical amenities, including interactive whiteboards, language laboratories, and computer laboratories equipped with Internet connectivity. Furthermore, the school is committed to actively using technology in the educational process.

3.2.2 Population and Sample of the Study

The sample selection process is critical in any empirical study because it serves as the foundation for ensuring data validity and reliability. Its goal is to obtain accurate and reliable information about a massive amount of data with the least amount of cost, time, and energy required to establish the limits of the accuracy of such estimates (Pandey, P. & Pandey, M., 2021). The population for this research included ten classes of grade 8 students from the middle school division, summing up to 288 students. Employing a simple random sampling method, the researcher selected 30 grade 8 students for the study. When conducting this research, several factors were considered, including the gender ratio and age distribution. The study focused on individuals aged between 13 and 15 years old, ensuring an equal representation of both boys and girls. This approach aimed to eliminate any potential bias in the research. The 30 samples had undergone English study for a minimum of 5 years and possessed an established basis in English as well as some substantial vocabulary. The specific details regarding the participants in the sample are presented in the table below.

Table 3.1 Demographic profile of the research participants

Age	Gender		Total Students
	Male	Female	
13	1	2	3
14	12	11	23
15	2	2	4
Total	15	15	30
Percentage	50%	50%	100%

Source: Pandey, P. & Pandey, M., 2021

3.3 Research Instruments

The research instruments are devices or tools used in academic research for data collection, measurement, and information analysis (Sathiyaseelan, 2015). According to the research objectives, three quantitative data collection instruments were employed in this study, including the lesson plans, English vocabulary skill tests (pre-test and post-test), and a questionnaire. The selection of appropriate research instruments is crucial to ensuring the validity and reliability of the study (Bastos, Duquia, Gonzalez-Chica, Mesa, & Bonamigo, 2014). The following are the specific research instruments used in this study:

Table 3.2 The instruments used to achieve the research objectives

Sl.No.	Research Objectives	Research Instruments
1.	To compare grade 8 Chinese students' English vocabulary skill before and after the use of Blended Learning Model (BLM) approach through Shanbay application.	English vocabulary skill test (pre-test and post-test)
2.	To examine grade 8 Chinese students' learning satisfaction towards the use of Blended Learning Model (BLM) approach through Shanbay application.	A questionnaire

3.3.1 Instructional Instrument

3.3.1.1 Lesson Plans

Fujii (2016) emphasizes that the lesson plan is an essential outcome of the lesson study process. The researcher designed four sets of lesson plans for grade 8 students' English vocabulary skill based on the MOE of China's 2022 English Curriculum Standards for Compulsory Education. The lesson plans covered four topics, and the intervention experiment was presented across four weeks. Each topic was covered in one week, with a total teaching time of 90 minutes. Every topic was separated into two sessions, each lasting 45 minutes. (For the lesson plans, see to Appendix E). The lesson plans content and duration matched with the national guidelines for teaching English in middle schools. The teaching content consisted of the vocabulary from Units 1 through 3 of Volume 2 of Grade 8. The selected vocabulary strictly aligns with the Ministry of Education's directives for fostering the academic development of English among grade 8 students.

Table 3.3 Lesson plans outline

Lesson Plans:	Topics / Sessions	Teaching activities
Test	Pre-test	
Lesson Plan 1 Introduce the Shanbay app and use it to build a foundation of vocabulary learning skill.	Section 1: Introduction to Shanbay and preliminary skill of vocabulary with Shanbay app. Section 2: Build a foundation of vocabulary learning skill with the Shanbay app.	1. Describe the functions and usage of the Shanbay app. 2. Choose the Grade 8 Text Book, Volume 2 vocabulary set for preliminary study via the Shanbay app. 3. Classroom activities: New words and phrases chain to stimulate students' interest. 4. Online activities: Utilize Shanbay app to learn the remaining vocabulary from Unit 1 of Grade 8, Volume 2, and share your results via the Shanbay app community.

Table 3.3 Lesson plans outline (Cont.)

Lesson Plans:	Topics / Sessions	Teaching activities
<p>Lesson Plan 2</p> <p>Learn vocabulary memorization technique "association method" through Shanbay app.</p>	<p>Section 1: Using Shanbay App to learn vocabulary memory skill "association method".</p> <p>Section 2: Students practice vocabulary memory skill "association method" through Shanbay app.</p>	<ol style="list-style-type: none"> 1. Explain memory skills, emphasizing the "association method" of this lesson. 2. Practice the "association method" memory abilities through the use of the Shanbay app's memory card function in conjunction with the mind map. 3. Classroom Activities: Make vocabulary mind maps via Shanbay app in groups to master the "association method" and make reports. 4. Online activities: Use the "vocabulary association method" taught in this lesson to memorize the 20 vocabulary words from Unit 2 of the grade 8 volume 2 while making the mind mappings.
<p>Lesson Plan 3</p> <p>Expand students' vocabulary by learning word roots and affixes through Shanbay app.</p>	<p>Section 1: Using Shanbay app, learn vocabulary through the vocabulary memory skill of "roots and affixes".</p> <p>Section 2: Students practice the vocabulary memory skill of "roots and affixes" through Shanbay app.</p>	<ol style="list-style-type: none"> 1. Learn common roots and affixes through Shanbay app. 2. Consider the word structure while understanding the significance of roots and affixes. 3. Class activities: root and affix word competitions using Shanbay app. 4. Online activities: Follow the "root and affix" strategy to learn the remaining words within Unit 2 of the grade 8 volume 2.

Table 3.3 Lesson plans outline (Cont.)

Lesson Plans:	Topics / Sessions	Teaching activities
Lesson Plan 4 Learn how to use vocabulary in sentences through the example sentence function of Shanbay app.	Section 1: Learn vocabulary memorization skill using the "contextual learning method" through the Shanbay app. Section 2: Students utilize the Shanbay App's "contextual learning method" to practice vocabulary learning skill.	1. Employ Shanbay app's example sentence function for comprehension of how to utilize vocabulary in sentences. 2. Analyze the example sentences and explain the vocabulary's meaning. 3. Classroom activity: Building a sentence and dialogue utilising vocabulary. 4. Online activity: Through what you've learned in this lesson, learn and imitate the words and sentences in Unit 3 of Grade 8, Volume 2, according to the examples in Shanbay app.
Test	Post-test	

Source: Researcher

3.3.2 Quantitative Data Collection Instruments

3.3.2.1 English vocabulary skill tests (pre-test and post-test)

The test, as part of a study, was used to indirectly measure students' skills. The English skill test refers to the exam used to measure an individual's competence in a language. The test may not only evaluate the effectiveness of teaching and learning outcomes but also aid in evaluating the teaching and learning methodology (Gustanti & Ayu, 2021; Rahman, 2016). As mentioned earlier, this study utilized a pre-test and a post-test to examine participants' English vocabulary skill. The researcher selected vocabulary from the National English Standard Textbook for grade 8 students following the requirements of the MOE. These results ensured the validity and reliability of the data.

The objective of these English vocabulary skill assessments was to comprehensively evaluate the English vocabulary skill of grade 8 Chinese students. The examination consisted of various formats, encompassing 30 English-Chinese translation questions, 10 fill-in-the-blank questions, 10 true-false questions, and 10 multiple-choice questions. The maximum achievable score for the test was 60 points. The test questions were moderately challenging, encompassing the translation of fundamental terminology and the application of vocabulary and sentence patterns of a specific level of complexity. This level of difficulty was appropriate for grade 8 Chinese students' vocabulary skill. The chosen vocabulary was derived from the 2nd volume of the grade 8 Chinese textbook. The content was frequently employed in daily English, which made it practical and beneficial for students to utilize in real-life conversation. It was appropriate to grade 8 Chinese students' English skill level. The vocabulary skill test paper consisted of a pre-test and post-test conducted as part of an intervention experiment. The objective was to thoroughly examine the enhancement in participants' English vocabulary skill before and after the intervention teaching. This improvement was achieved through their participation in Shanbay application via BLM approach.

To ensure the reliability and viability of the English vocabulary skill test, the researcher carefully chose vocabulary materials derived from grade 8 question sets. Before implementing the test, the researcher did the simulation experiments to assess its effectiveness. These sessions introduced the participants to the testing method and different question formats, allowing the researcher to optimize test details for a smooth formal testing procedure. To ensure fairness, each participant took the vocabulary skill test in the same testing atmosphere and at predetermined times. The approach would seek to reduce external influences that may affect the results of tests. To improve the test's reliability and validity, two experienced English teachers independently scored all answer sheets after the formal skill test. Cross-validation of scoring results ensured impartiality and consistency in assessing participants' language skills. In summary, establishing the reliability and validity of the English vocabulary skill test design was essential. To achieve a thorough evaluation of participants'

vocabulary skill, the researcher emphasized material selection, simulation testing, standardized test environments, independent scoring, and cross-validation.

3.3.2.2 Questionnaire

Taherdoost (2016) noted that the questionnaire is extensively employed as a data-gathering technique in research, with the primary aim of acquiring valid and reliable data. The questionnaire was used as an important instrument in this research to gather quantitative data on the interest, motivation, engagement, and effectiveness of BLM through Shanbay application among grade 8 students. Its objective is to improve their English vocabulary skill.

The learning satisfaction questionnaire featured a 5-point Likert scale, structured into three distinct sections by the researcher: interest and motivation, engagement, and the efficacy of Blended Learning Model (BLM) methods implemented via Shanbay application. Each section had 5 items, resulting in a total of 15 items within the satisfaction questionnaire.

To guarantee the learning satisfaction questionnaire's reliability and validity, the researcher took into account the cognitive and understanding abilities of the respondents. The 5-point Likert scale was used with the following indicators: (5) strongly agree; (4) agree; (3) neutral; (2) disagree; and (1) strongly disagree. The item phrases were maintained as easy to comprehend and clear so that responders may appropriately express their emotions. Before completing the questionnaire, the researcher provided extensive explanations, emphasizing the questionnaire's anonymity and confidentiality. The satisfaction questionnaire was constructed with no right or wrong responses, with the researcher aiming to extract the respondents' real opinions and reflections about Shanbay application.

3.4 Validity and Reliability of Research Instruments

The study's capacity to provide valuable outcomes relies on the crucial criteria of validity and reliability of the scales employed (Sürücü & Maslakçi, 2020). The concepts of validity and reliability aimed to ensure the accuracy and consistency of methods, techniques, or tests in measuring their intended targets. Validity assesses the precision of measurements, while reliability evaluates their stability.

3.4.1 Content Validity

Content validity pertains to the alignment of the instrument or assessment method's content with the requirements of the object or subject being evaluated. It assesses whether the content of a test or scale comprehensively and accurately reflects every element of the measuring objective (Ismail & Zubairi, 2021; Taherdoost, 2016). The researcher employed the Item-Objective Congruence (IOC) index to validate the measurement instruments in this study. (Luo, Pibulcharoensit, Kitcharoen, & Feng, 2022) pointed out that the IOC utilized in educational research showed that individual elements on a test or questionnaire corresponded successfully with the objectives, thereby assuring validity. The researcher invited three English education experts to analyze the lesson plans, English vocabulary skill tests, and the learning satisfaction questionnaire's validity. The experts comprised one professor and two assistant professors from China. The three experts utilized the IOC index to confirm the validity of the research instruments, ensuring that all items met the study's intended objectives. The IOC index was measured on a scale ranging from -1 to +1, as illustrated below.

+1: Indicates perfect alignment of the measure with the specified objectives, demonstrating a clear match with the goals.

0: Indicates ambiguity or uncertainty regarding whether the measures effectively correspond with the objectives.

-1: Indicates that the measure fails to achieve the outlined aims, or the item does not match the objective.

The formula for calculating IOC is $\frac{\sum r}{n}$, where 'r' represents the sum of scores given by individual experts, and 'n' denotes the number of experts who validated the items. If the test items ranging from 0.67 to 1.00 are considered valid and acceptable. However, if the values under 0.67 suggest the need for revisions based on expert advice, the researcher edited the instruments according to the experts' feedback.

The IOC score for both the lesson plans and the English vocabulary skill tests was 1, indicating that these contents fully aligned with the research objectives, achieving the highest level of congruence. The experts agreed that lesson plans and the English vocabulary skill test precisely fulfilled the researcher's objectives, with all elements highly coordinated to maximize teaching effects. The test design was deemed highly effective, accurately assessing students' vocabulary knowledge and application skills.

The IOC score for the satisfaction questionnaire was 0.96, which indicated that the experts agreed on the high congruence between the questionnaire and the research objectives, demonstrating that the questionnaire effectively reflected the objectives of the research or test in its design and content.

3.4.2 Reliability

Taherdoost (2016) pointed out that the reliability of the research instrument refers to its consistency or stability in achieving measurements all through multiple tests, including internal reliability, which assesses the level of consistency of scores on the same sample under varying environments (Sürücü & Maslakçi, 2020). This is essential to ensure that the research results are credible and can be replicated or generalized to a broader population.

Cronbach's alpha is a commonly used statistic to assess the internal consistency or reliability of research instruments, particularly tests or scales used to measure attitudes, knowledge, and satisfaction (Taber, 2017). (Hari, 2024) pointed out Cronbach's alpha coefficient is based on the average correlation coefficient between

the items in the measurement tool and the number of items. It ranges from 0 to 1, and the closer it is to 1, the higher the internal consistency and reliability. Before conducting the disruption experiment, the researcher assessed the learning satisfaction questionnaire on an additional 30 students of the same level at the research school. The learning satisfaction questionnaire had a Cronbach's alpha of 0.96, significantly exceeding the required value of 0.7. This demonstrates that the questionnaire achieved excellent internal consistency and reliability. The specific value range of Cronbach's alpha coefficient is shown in the following table:

Table 3.4 The value range of Cronbach's alpha

Cronbach's alpha	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Source: Dzulkalnine et al., 2022

The Kuder-Richardson Formula 20 (KR-20) is a method proposed by Kuder and Richardson to test the reliability of measurement tools, particularly for binary multiple-choice questions (Hari Sugiharto, 2024). The reliability score of the English vocabulary skill test items and the learning satisfaction questionnaire in this study needed to be greater than 0.70, which proved that the test tool was reliable and satisfactory (Alfiatunnisa, Khairunnisa, Hayati, & Maulida, 2022; Isa & Azid, 2022). Otherwise, it meant that the questions of the measurement tool need to be further improved. The higher the coefficient, the smaller the level of measurement error, whereas the lower the coefficient, the greater the measurement error (Foster, 2021).

Before executing the disruption experiment, the researcher evaluated the English vocabulary skill test items with an additional 30 students of the same level at the research school. To determine the reliability of the English vocabulary skill test,

KR-20 was calculated using the provided data. The total variance across all items was found to be 76.60, and the sum of $p_i(1-p_i)$ was calculated to be 15.62. By applying the KR-20 formula, which incorporates the number of items in the test (60), the coefficient was computed to be approximately 0.81. This indicated that the internal consistency and reliability of the English vocabulary skill test were acceptable.

3.5 Data Collection Procedures

3.5.1 Ethical Consideration

In this study, full consideration was given to ethics, privacy protection, and data security, providing guarantees for the smooth progress of the research and the validity of its results. Ethical considerations were meticulously addressed at every stage of the study to safeguard the rights and well-being of all participants. Stringent protocols were implemented to maintain strict confidentiality and privacy standards in handling sensitive personal information.

3.5.2 Approval

Initially, due to ethical considerations, the researcher would seek the consent of the school principal and obtain a formal written consent form before commencing the actual data collection. Following this, considering the age bracket of the participants (ranging from 13 to 15 years old), a thorough elaboration on the objective and importance of the study, as well as specifics about the equipment and tools to be employed, were imparted to both the participants and their guardians. This ensured that everyone fully understood the study's objectives, and their written consent was obtained.

3.5.3 Anonymity and Confidentiality of the Participants

For the sake of privacy protection and data security, the school location, personal information of participants, and research records collected by researcher were kept confidential and handled anonymously. To ensure confidentiality, the researcher informed each participant and their guardians before the actual testing that their personal information was maintained anonymously. The researcher used a coding system (serial numbers) instead of names as an alternative measure to maintain confidentiality (Example: Student 1, Student 2, Student 3,...). Furthermore, after the completion of the study, all data were thoroughly deleted according to ethical research standards.

3.6 Data Analysis

Data analysis is a rigorous scientific procedure that involves the methodical collection and evaluation of measurable data (Bergin, 2018). The primary objective of the analysis is to validate conjectural inquiries. Typically, it is executed via computer software. The procedure entails the measurement, classification, and summarization of statistical information using two or more suitable methods. Additionally, it involves the creation of charts and graphs to enhance the comprehension of the data (Ali, 2021). The researcher employed a t-Test to examine the quantitative data from the pre-test and post-test of the English vocabulary skill tests. Descriptive statistics were used to assess the data obtained from the satisfaction questionnaire.

3.6.1 English Vocabulary skill Test

The t-Test is a widely used statistical method primarily designed to compare the means of two groups to determine if they are significantly different from each other (Mishra, Singh, Pandey, Mishra, & Pandey, 2019). A paired-sample t-Test is applicable when we want to know whether there is a significant difference between two groups of data (usually two groups of samples) on a particular variable (Manfei, Fralick, Zheng, Wang, & Changyong, 2017; Ross, Willson, Ross, & Willson, 2017).

To assess the significance of the change in sample scores between the pre-test and post-test for evaluating the objectives of improving English vocabulary skill through the Blended Learning Model (BLM) approach via Shanbay application, the researcher collected the total scores, mean scores, and standard deviations of participants' scores on the English vocabulary skill tests. A paired sample t-test was employed for quantitative data analysis.

3.6.2 Questionnaire

Descriptive statistics is a commonly used quantitative data analysis technique that effectively summarizes and accurately portrays the characteristics of data (Jopling, 2019). The researcher employed descriptive statistics to assess the distribution of the mean of the responses to each item in the learning satisfaction questionnaire. This analysis aimed to investigate the learning satisfaction among grade 8 Chinese students who utilize BLM approach via Shanbay application. The interpretation of the Likert scale questionnaire findings (means) is based on the range of mean scores supplied below:

Table 3.5 The range of mean score interpretation

Mean Score	Interpretation
4.30 to 5.00	Very high
3.50 to 4.29	High
2.70 to 3.49	Moderate
1.90 to 2.69	Low
1.00 to 1.89	Very low

Source: Zaki & Ahmad, 2017

CHAPTER 4

DATA ANALYSIS AND RESULTS

In this study, a quasi-experimental design was employed to assess the effectiveness of Blended Learning Model (BLM) via "Shanbay" app on the English vocabulary skill of grade 8 Chinese students. Additionally, the research examined the students' learning satisfaction with the Blended Learning Model (BLM) approach through "Shanbay" application. The findings of this study were obtained using the following research instruments: the English vocabulary skill tests (a pre-test and a post-test) and a learning satisfaction questionnaire. The results are presented in the following order:

4.1 Analysis of English vocabulary skill test scores

4.2 Analysis of questionnaire

4.1 Analysis of English Vocabulary Skill Test Scores

The purpose of this study was to present the results of the first research question. This question was to explore whether Blended Learning Model (BLM) approach through "Shanbay" application could significantly improve the English vocabulary skill of grade 8 Chinese students. Conclusions were drawn from the pre-test and post-test results. The analysis and comparison of the English vocabulary skill tests (pre-test and post-test) were conducted using a paired sample t-Test, focusing on the mean, standard deviation, and significance (p) value. To ensure impartiality, two assessors were involved in the evaluation process.

4.1.1 Data Analysis of Pre-test and Post-test

This study administered a pre-test and post-test consisting of 60 questions (totaling 60 points) to 30 participants. Table 4.1 shows the score difference between

the pre-test and post-test among the participants before and after the intervention experiment. The table showed 4 participants improved by less than 10%, 17 participants improved by 10%~19%, 8 participants improved by 20%~29%, and 1 participant improved by 30%. All participants' post-test scores increased over the pre-test, ranging from 4 to 18 points.

The post-test results revealed that the scores of all 30 pupils improved markedly or moderately. The highest significant change between the pre-test and post-test was 18 points for student number 28, while the smallest difference was 4 points for student number 12. The participants' pre-test scores revealed that student number 7 had the greatest score of 49 points (out of 60), while student number 13 had the lowest score of 25 points.

The post-test results revealed that the participants' highest score after the experimental intervention was 56 points, earned by student number 8, 19, and 22, while the lowest score was 36 points, attained by student number 13.

Table 4.1 Score difference between pre-test and post-test

Student ID	Pre-test Scores (Full Score=60)	Post-test Scores (Full Score=60)	Improvement Score	Percentage difference
1	33	39	6	10.00%
2	29	41	12	20.00%
3	35	45	10	16.67%
4	38	47	9	15.00%
5	47	52	5	8.33%
6	40	48	8	13.3%
7	49	54	5	8.33%
8	45	56	11	18.33%
9	36	42	6	10.00%
10	43	49	6	10.00%
11	38	51	13	21.67%

Table 4.1 Score difference between pre-test and post-test (Cont.)

Student ID	Pre-test Scores (Full Score=60)	Post-test Scores (Full Score=60)	Improvement Score	Percentage difference
12	39	43	4	6.67%
13	25	36	11	18.33%
14	41	46	5	8.33%
15	40	50	10	15.00%
16	35	41	6	10.00%
17	33	45	12	20.00%
18	39	53	14	23.33%
19	44	56	12	20.00%
20	37	44	7	11.67%
21	44	53	9	15.00%
22	43	56	13	21.67%
23	34	40	6	10.00%
24	35	45	10	15.00%
25	31	44	13	21.67%
26	26	38	12	20.00%
27	33	43	10	15.00%
28	34	52	18	30.00%
29	42	48	6	10.00%
30	33	41	8	13.3%
Mean	37.37	46.60	9.23	15.38%

4.1.2 Pre-test and Post-test Comparison

That which follows Figure 4.1 presents comparative graphical depiction of individual student scores in pre-test and post-test. In the figure, the blue line indicates the scores obtained on the pre-test, and the orange line represents the scores obtained on the post-test following the implementation of the intervention. According to the graphical display, it is possible to observe that after the Blended Learning Model (BLM) for the "Shanbay" application was administered, all participants obtained higher scores on the

post-test. This shows that "Shanbay" application combined with Blended Learning Model (BLM) was an effective learning method for improving English vocabulary skill.

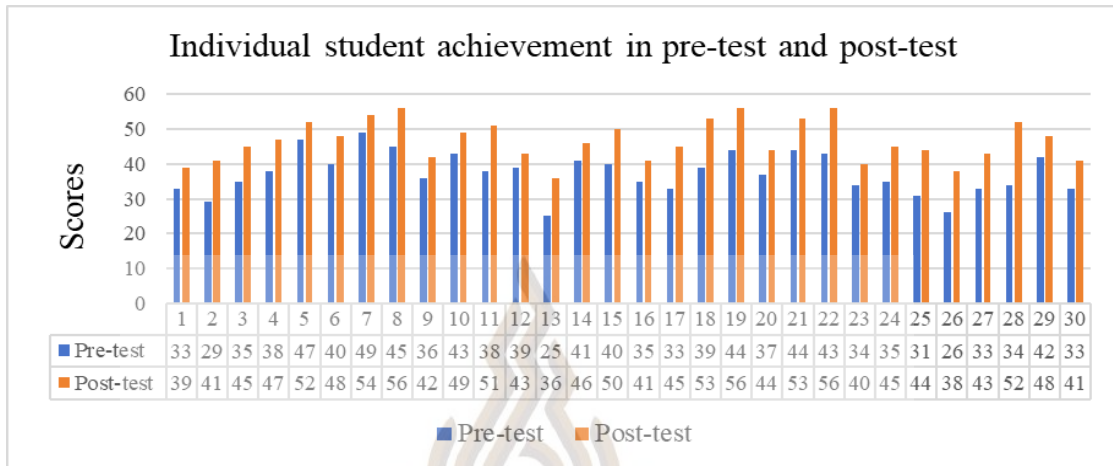


Figure 4.1 Comparative graphical depiction of individual student scores

The following table provides information regarding the mean scores for the pre-test and the post-test, which were 37.37 and 46.60, respectively. It was found that the mean score of the post-test was higher than that of the pre-test. As shown in the comparison between the orange bars in the post-test and the blue bars in the pre-test, there has been an increase of 9.23 points. Based on these findings, it can be concluded that all participants improved their scores during the post-test.

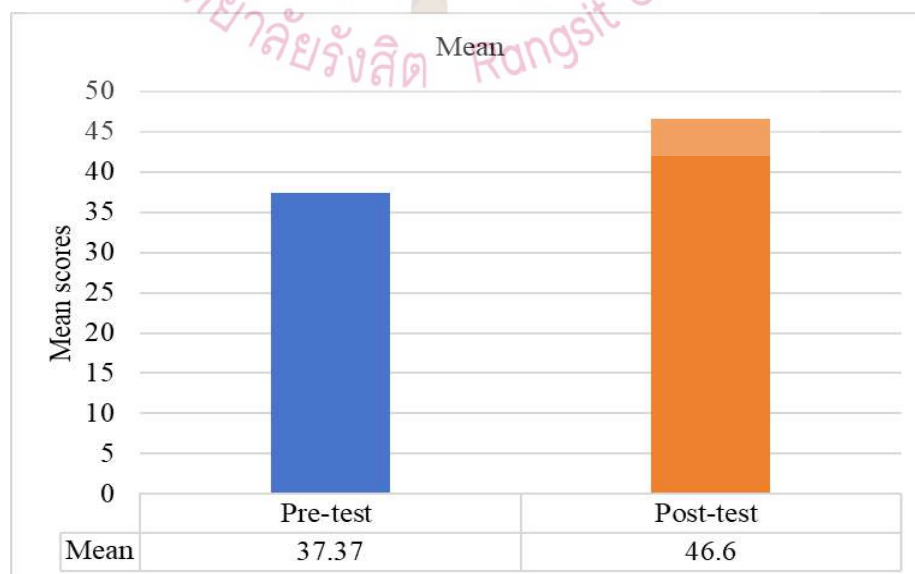


Figure 4.2 Comparison of pre-test and post-test mean

4.1.3 Analysis of Paired Sample t-Test

Table 4.2 presents paired samples t-Test results analysis on the test scores, demonstrating a favorable result. The pre-test group exhibited a mean score of 37.37 with a standard deviation of 5.88, whereas the post-test group had a mean score of 46.60 and a standard deviation of 5.73. The post-test mean was 9.23 points higher than the pre-test, indicating a significant improvement in average scores post-intervention. The calculated significance value (P) in this study was 0.01, significantly below the conventional threshold of 0.05 ($P < 0.05$). This low P-value strongly suggests that the post-test scores of the sample group statistically significantly outperformed the pre-test scores. Details of the mean scores from the pre-test and post-test are available in Table 4.2, highlighting the efficacy of Blended Learning Model (BLM) implemented through "Shanbay" application in improving participants' English vocabulary skill.

Table 4.2 Paired samples t-Test results

Group	Pre-test		Post-test		Mean Difference	T	P-value
	\bar{x}	SD	\bar{x}	SD			
Sample Group	37.37	5.88	46.60	5.73	46.60-37.37=9.23	124.92	<.01
Significance level (p): ≤ 0.05 -significant							

4.2 Analysis of Questionnaire

Quantitative data were collected for this study using a five-point Likert scale to assess the learning satisfaction of grade 8 Chinese students concerning Blended Learning Model (BLM) approach through "Shanbay" application. A score of 1 indicated strong disagreement, while a score of 5 indicated strong agreement. A total of 15 items were incorporated, and they were categorized into three distinct sections: Part A, which focused on interest and motivation; Part B, which focused on engagement; and Part C, which focused on the efficacy of the BLM approach as implemented through the Shanbay app. This learning satisfaction questionnaire was distributed to each of the 30 participants. Descriptive statistics (means and standard

deviations) were implemented to analyze the satisfaction questionnaire data. The mean scores fell into specific ranges: the highest range was 4.30-5.00, the high range was 3.50-4.29, the moderate range was 2.70-3.49, the low range was 1.90-2.69, and the lowest range was 1.00-1.89.

Table 4.3 shows the mean scores and standard deviations of students' satisfaction with Part A: interest and motivation. The overall mean score for Part A was 4.14, which shows that students' interest and motivation in learning English vocabulary through "Shanbay" application via BLM are generally very high. The highest mean score of 4.33 was awarded to Item 2, "The content and method of our English vocabulary course attracted my interest," which is classified as "highest" on the five-point Likert scale. Even though the mean score for Item 1 was slightly lower (\bar{x} = 4.03), the overall interpretation of the mean scores suggested that students' perceptions of Part A of the questionnaire, which focused on interest and motivation, remained at high levels (\bar{x} = 3.5).

Table 4.3 Mean and standard deviation: Part A (n=30)

	Part A- Interest & Motivation	Mean	SD	Interpretation
1	It was enjoyable to learn English vocabulary through the Shanbay App via BLM.	4.03	0.72	High
2	The content and method of our English vocabulary course attracted my interest.	4.33	0.61	Very high
3	I had a strong personal motivation to improve my English vocabulary, both in and out of class.	4.07	0.58	High
4	Using Shanbay motivated me to learn and engage in English vocabulary study both inside and outside of class.	4.17	0.70	High
5	The English course motivated me to learn more about the English language.	4.10	0.71	High
	Average	4.14	0.66	High

Table 4.4 presents the means and standard deviations of the students' ratings based on the results of Part B: Engagement. According to the statistics, Item 10, "The activities in and out our English classes sparked my interest and kept me actively involved in the entire learning process," received the highest mean score of 4.17. Conversely, item 6, "I always found opportunities for interaction and participation in and out of class during the English vocabulary classes conducted through Shanbay App via Blended Learning Model (BLM)." received the lowest mean score of 3.9. Nevertheless, it remained within the 'high' category for mean scores.

Table 4.4 indicates that the overall mean score for Part B was 4.02, with all five items receiving "high" ratings. The results revealed that the participants felt that the experimental intervention increased their engagement in learning English vocabulary and prompted learners to engage in learning both inside and outside the classroom through using Shanbay App via Blended Learning Model (BLM) approach.

Table 4.4 Mean and standard deviation: Part B (n=30)

	Part B- Engagement	Mean	SD	Interpretation
6	I always found opportunities for interaction and participation in and out of class during the English vocabulary classes conducted through Shanbay App via BLM.	3.90	0.80	High
7	The English vocabulary practice activities conducted through Shanbay App via BLM kept me fully engaged.	3.97	0.85	High
8	The English vocabulary feedback received on Shanbay helped me improve in a timely manner and encouraged me to do better.	3.97	0.72	High
9	The vocabulary practice materials and methods provided by the teacher through Shanbay App via BLM were relevant and helpful to my English learning goals.	4.10	0.71	High

Table 4.4 Mean and standard deviation: Part B (n=30) (Cont.)

	Part B- Engagement	Mean	SD	Interpretation
10	The activities in and out our English classes sparked my interest and kept me actively involved in the entire learning process.	4.17	0.75	High
	Average	4.02	0.77	High

Based on the results of Section C: Efficacy of using BLM approach via Shanbay app, Table 4.5 presents the mean scores and standard deviations of the student's responses. In item 15, most participants endorsed using Shanbay application via Blended Learning Model (BLM) helped them improve their English self-learning skill. In terms of the mean score, it was in the "very high" range ($\bar{x}=4.33$). In item 14, "Using Shanbay App through BLM enhanced my collaboration skill." the mean score was 4.23. At the lowest level of the survey, the mean score was 3.87 for Item 12, "Using Shanbay App via BLM offered an excellent foundation for my English vocabulary skill." In terms of the overall mean score, it was still high, this proved that students' English vocabulary skill was improved after Using Shanbay App via BLM.

The mean scores of all items show that participants agree that using BLM approach via Shanbay application is highly effective after the interference experiment, especially in terms of cooperative learning skills and self-learning skill.

Table 4.5 Mean and standard deviation: Part C (n=30)

	Part C-Efficacy of using BLM approach via Shanbay app	Mean	SD	Interpretation
11	Using Shanbay App through BLM helped me increase my English vocabulary.	3.90	0.76	High
12	Using Shanbay App via BLM offered an excellent foundation for my English vocabulary skill.	3.87	0.82	High
13	Using Shanbay App via BLM offered me possibilities for ongoing learning both in and out of the classroom.	4.03	0.67	High

Table 4.5 Mean and standard deviation: Part C (n=30) (Cont.)

	Part C-Efficacy of using BLM approach via Shanbay app	Mean	SD	Interpretation
14	Using Shanbay App through BLM enhanced my collaboration skill.	4.23	0.68	High
15	Using Shanbay App via BLM helped me build up my English self-learning skill.	4.33	0.66	Very high
	Average	4.07	0.72	High
	Overall Mean & SD for all 15 items	4.08	0.72	High

The learning satisfaction questionnaire results provided by the participants showed that the mean scores of each item were "high" and "highest", and no item received "moderate" or "low" scores. The mean scores of the three parts were 4.14, 4.02 and 4.07 respectively, and the overall mean of the 15 items was 4.08. The results of the study indicated that Blended Learning Model (BLM) approach implemented through "Shanbay" application in the English course was met with a high level of satisfaction among the participants.



CHAPTER 5

CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

The findings of the study, which are elaborated upon in Chapter 4, underpin the conclusions presented in this chapter. After an in-depth analysis of the results, this chapter concludes with recommendations for both ongoing and future research, as well as suggestions for practical implementation. The detailed structure of the sections is outlined as follows:

- 5.1 Conclusion
- 5.2 Discussion
- 5.3 Recommendations

5.1 Conclusion

The researcher conducted the research according to with two questions: 1) Did the use of the Blended Learning Model (BLM) approach through Shanbay application result in a significant improvement in the English vocabulary skill of Chinese grade 8 students? and 2) What was the extent of grade 8 Chinese students' satisfaction with the use of the Blended Learning Model (BLM) approach through Shanbay application in improving their English vocabulary skill? The data were gathered and examined using English vocabulary skill tests and a learning satisfaction questionnaire. Upon gathering and examining the data, the subsequent conclusions concerning students' English vocabulary skill and their levels of satisfaction have been established.

5.1.1 The Result of English Vocabulary Skill Analysis

This study first research question was: Did the use of the Blended Learning Model (BLM) approach through Shanbay application result in a significant improvement

in the English vocabulary skill of grade 8 Chinese students? The question was answered using the results of the pre-test and post-test after the research intervention.

A paired sample t-Test was utilized within the sample group for comparative statistical analysis to ascertain differences in improvement levels between the pre-test and post-test. According to the analysis findings in Table 4.2 in Chapter 4, the mean score of the posttest was significantly higher than the pretest. The table showed the pre-test and the post-test had respective mean scores of 37.37 and 46.60. The mean gap between the pre-test and post-test was 9.23. In addition to this, the significance (p) value was 0.01, which was considerably less than the conventional threshold of 0.05 ($P < 0.05$), this low p-value strongly suggested that the post-test scores of the sample group statistically significantly surpassed those of the pre-test. As described above, the positive results from the quantitative data analysis revealed a considerable improvement in the post-test English vocabulary skill levels for all students.

According to the research findings, using the Blended Learning Model (BLM) approach through "Shanbay" application improved their learning outcomes. As a result, the first research question was to compare grade 8 Chinese students' English vocabulary skill before and after the use of Blended Learning Model (BLM) approach through Shanbay application was successfully achieved. Thus, the research hypothesis was that the use of Blended Learning Model (BLM) approach through Shanbay application led to a significant improvement in students' English vocabulary skill was proved to be true.

5.1.2 The Result of the Students' Learning Satisfaction

The study second question was: What was the extent of grade 8 Chinese students' satisfaction with the use of the Blended Learning Model (BLM) approach through Shanbay application in improving their English vocabulary skill? To evaluate student satisfaction, quantitative data were gathered by a satisfaction questionnaire provided to 30 students at the end of the intervention. To examine the learning satisfaction with the use of Blended Learning Model (BLM) approach through "Shanbay" application, a satisfaction

questionnaire was administered to all research participants, comprising 15 items grouped into three sections. The questionnaire analyses were conducted using statistical descriptions. The quantitative data analysis produced positive outcomes, indicating that all students demonstrated a high level of satisfaction with the use of Blended Learning Model (BLM) implemented through the "Shanbay" application. The following presents the researchers' data analysis for each part.

In Part A of the learning satisfaction questionnaire, interest and motivation were rated with an average mean score of 4.14, which fell under the high category. The average engagement score in Part B of the questionnaire was 4.02, This indicated that most students were interested and motivated in using the Blended Learning Model (BLM) approach through the "Shanbay" application in English vocabulary classes.

The mean score of engagement in Part B of the learning satisfaction questionnaire was 4.02, which belonged to the high category, and all items in Part B received high ratings, which indicated that most students had high engagement in the use of Blended Learning Model (BLM) approach through "Shanbay" application in English vocabulary classes.

The average score of Part C of the satisfaction questionnaire was 4.07, categorizing it as high. The majority of students perceive the Blended Learning Model (BLM) method using the "Shanbay" application in English vocabulary sessions as beneficial and practical.

The mean scores of the three parts were 4.14, 4.02 and 4.07 respectively, and the overall mean of the 15 items was 4.08. The satisfaction questionnaire results provided by the participants showed that the mean scores of each item were "high" and "highest", and no item received "moderate" or "low" scores. Consequently, the researcher determined that students expressed high satisfaction with the implementation of the Blended Learning Model (BLM) via "Shanbay" application in English vocabulary classes.

5.2 Discussion

5.2.1 Addressing the Objectives of the Study

In the analysis that met the research objectives, the focus was on evaluating the impact of using Blended Learning Model (BLM) through Shanbay application on improving English vocabulary skill among Chinese grade 8 students. The study had two key findings.

First, the study found that using Blended Learning Model (BLM) through Shanbay application significantly improved students' English vocabulary skill. After four weeks of using the Blended Learning Model (BLM) through Shanbay application, data from the pre-test and post-test showed significant improvement among participants. The students' post-test scores increased by 15.38% overall. The second finding of the study was that grade 8 Chinese students evidenced a high level of learning satisfaction with the strategy of improving vocabulary skill through the Shanbay application via Blended Learning Model (BLM). Participants completed their questionnaire four weeks following the interference investigate, and the learning satisfaction questionnaire data indicated a mean score of 4.08.

Finally, according to the constructivist learning theory proposed by Jean Piaget, the use of Blended Learning Model (BLM) through Shanbay application helps students construct knowledge through their own active cognitive process. It shows that the use of Blended Learning Model is very helpful in the continuous learning of English vocabulary, especially in the participation and enthusiasm inside and outside the classroom. According to the learning theory of Technology-Enhanced Language Learning (TELL), Shanbay application can enhance personalized learning, improve interactivity and participation, and get timely feedback, so as to have a higher satisfaction in English learning.

5.2.2 Improving Students' English vocabulary skill

The results of the study showed that the Blended Learning Model (BLM) using the Shanbay application made a significant contribution to improving students' English vocabulary skill.

First, overall, compared with the pre-test results, the scores of the 30 students who participated in this research had all improved in the post-test. Compared with the pre-test scores (37.37), the post-test scores (46.6) were 9.23 points higher, with an overall improvement of 15.38%. The p value obtained by using the t-Test statistical method was 0.01, which showed that there was a significant difference between the two groups of data (pre-test and post-test), and the participants showed significant improvement in their scores after the intervention experiment.

Secondly, from the analysis of specific data, after completing the one month interference experiment, the participants all had improvements ranging from 4 to 18 points. Among them, the participant with the most significant improvement in score was Student Number. 28, who had a pre-test score of 34 points (full score 60 points) and a post-test score of 52 points. After the interference experiment, his score increased by 18 points, an increase of up to 30%. Among the other participants, 4 participants improved by less than 10%, 17 participants improved by 10-19%, 8 participants improved by 20-29%, and 1 participant improved by 30%. None of the participants showed a decline or stagnation in their post-test scores.

Therefore, it could be concluded that the participants' scores improved significantly after the four week interference experiment in this study. This showed that the use of Blended Learning Model (BLM) approach through "Shanbay" application would lead to a significant improvement in students' English vocabulary skill. Therefore, the results of this study were consistent with all the findings presented previously, which allowed the study to obtain answers to the original research questions. The use of the Blended Learning Model (BLM) approach through the "Shanbay" application would lead to a significant improvement in students' English vocabulary skill.

The results of this study are similar to many previous studies, such as studies by Damaiyanti and Sari (2017), Davood (2018), Ebadi and Ghuchi (2018), Katasila and Poonpon (2022), Gusnita, Salija, and Atmowardoyo (2021) and Hong and Stapa (2023) All these previous studies support the results that Blended Learning Model (BLM) positively affected the students' vocabulary knowledge.

5.2.3 Students' Learning Satisfaction

This study aimed to assess students' satisfaction with the Blended Learning Model (BLM) via the Shanbay application for learning English vocabulary using a five-point Likert scale, where 1 represented "strongly disagree" and 5 represented "strongly agree". The satisfaction questionnaire consisted of 15 items (divided into three parts). A total of 30 participants (n=30) completed the questionnaire. The results were analyzed using descriptive statistics, including mean and standard deviation. The mean score range was categorized as 4.30-5.00 for very high satisfaction, 3.50-4.29 for high satisfaction, 2.70-3.49 for moderate satisfaction, 1.90-2.69 for low satisfaction, and 1.00-1.89 for very low satisfaction. The following discussion is divided into parts:

First, Part A focused on interest and motivation. The results of the satisfaction questionnaire showed that the total mean score of Part A was 4.14, which indicated that the participants showed "high" satisfaction with Part A. The participants agreed that learning English vocabulary through BLM using the Shanbay application was very interesting and they were motivated to learn vocabulary both inside and outside the classroom. Using the Shanbay application through BLM motivated participants to actively learn and understand English.

Second, Part B focused on participation. The overall mean score of Part B of the satisfaction questionnaire was 4.02, showing "high" satisfaction. Through the learning satisfaction questionnaire, it could be seen that the participants believed that the English vocabulary class conducted through BLM's Shanbay application provided them with more opportunities for interaction and participation, and could carry out student-centered autonomous learning opportunities, which encouraged participants to

better devote themselves to vocabulary learning. The learning materials and interactive platform provided by the Shanbay application could provide timely feedback to motivate participants to actively participate in learning tasks.

Part C focused on the effectiveness of using BLM through the Shanbay application. The mean score of Part C of the satisfaction questionnaire was 4.07, which was also in the "high" range. The participants believed that using the Shanbay application through BLM helped them increase their English vocabulary, helped them lay a good vocabulary foundation, and provided the possibility for continuous learning in and outside the classroom. In addition, the participants also agreed that using the Shanbay application through BLM enhanced their collaboration and self-learning ability in English, which was consistent with the constructivist learning theory and Technology-Enhanced Language Learning (TELL) theory in the study.

In summary, the participants gave "high" satisfaction (mean score was 4.08) to all 15 items, which showed that students had a positive attitude towards learning English vocabulary using the Shanbay application combined with the BLM method, because no item received a "moderate" or "strongly disagree" rating.

This was consistent with the findings of some existing literature, (Masita, 2020) (Masita, 2020) pointed out that the vocabulary teaching process of blended learning can increase and attract students to participate in the teaching and learning process. The combined use of applications can attract students to concentrate, meet students' personal needs, classroom situations and technological developments, and students show high learning satisfaction. There are many other literatures that have reached similar conclusions, such as, Alshwiah (2009), Gusnita et al. (2021), Bazán and Maximiliana (2023) and Della (2023) which pointed out that the the Blended Learning Model (BLM) helped to improve students' learning enthusiasm and participation, and students had a high level of satisfaction with the the Blended Learning Model (BLM).

5.3 Recommendations

This study found that using the Blended Learning Model (BLM) approach through "Shanbay" application significantly improved students' English vocabulary skill. Second, grade 8 Chinese students reported high learning satisfaction with this approach for improving their vocabulary skill. Therefore, based on the findings and conclusions made from the study the following recommendations are proposed.

5.3.1 Recommendations for Implementation

1) The study's results demonstrated that post-test scores exceeded pre-test scores, and students reported higher levels of satisfaction. Therefore, it was recommended that teachers should integrate the Blended Learning Model (BLM) approach through the "Shanbay" application into daily teaching practice when teaching English vocabulary skill to other grades, so as to provide students with personalized and diversified learning paths.

2) According to the survey results, teachers can formulate corresponding strategies to stimulate students' learning interest and self-motivation based on the significant improvement of students' participation and learning motivation in the blended learning environment. During the implementation process, focus on coaching students' learning strategies and assisting them in efficiently using mobile devices for self-study.

3) It is advised that other English instructors consider implementing Blended Learning Model (BLM) via the "Shanbay" application for instruction. This suggestion is based on feedback from several study participants who found this learning method engaging, enjoyable, and effective in fostering a stimulating learning environment, thereby better meeting students' needs.

4) Finally, education administration departments and school management should consider providing teachers with more professional training and resource support on mobile blended learning models to promote the effective implementation of teaching activities.

5.3.2 Recommendation for Future Studies

The researcher wishes to provide the following recommendations for future research, taking into account certain limitations identified in the study.

1) Although this study has made some progress in exploring the effect of the Shanbay vocabulary application in improving the vocabulary level of grade 8 Chinese junior high school students through a mobile blended model, some of its limitations and potential development directions should also be recognized. This study only selected 30 grade 8 Chinese students in Shandong Province, China. Therefore, conducting research in other parts of China provides valuable replication opportunities to verify and verify the research results.

2) The research time of this study was limited, lasting only four weeks, and the tool was single. Consequently, to achieve more dependable findings, future research may benefit from conducting extended investigations and incorporating additional qualitative research methods, such as interviews and observations. These methods can facilitate a deeper examination of the learners' specific strategies, experiences, and limitations associated with the implementation of the Blended Learning Model (BLM) through "Shanbay" application. This approach can significantly deepen our understanding of their English vocabulary learning process.

3) At the same time, given the diversity of learners' backgrounds, future research can broaden the sample range to include a broader range of regions and school types. This will enable a more comprehensive assessment of the applicability and effectiveness of using the Blended Learning Model (BLM) approach via "Shanbay" application in various educational contexts.

As educational technology continues to advance, educators and teachers can explore the application of advanced technologies like artificial intelligence and big data analysis to enhance the Blended Learning Model (BLM) approach in the classes. This can be achieved through the "Shanbay" application, which creates a personalized learning recommendation system, thereby improving learning efficiency and effectiveness.

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Certificate of Approval

Heze Luxi New District Chenxi School, Administrative Department

Subject: Approval to collect data for M. Ed thesis

Dear Sir/Madam,

I am currently working toward a master's degree in education curriculum and instruction at Rangsit University in Thailand. I'm researching: "THE USE OF BLENDED LEARNING MODEL (BLM) APPROACH THROUGH "SHANBAY" APPLICATION TO IMPROVE ENGLISH VOCABULARY SKILL AMONG GRADE 8 CHINESE STUDENTS". This study requires a student's participation. Pre-test and post-test, as well as a questionnaire, were used to gather data. As a result, I'd like to request permission from the administration to collect data at this school, where students' identities and names are kept confidential.

Yours sincerely
Wenzhi Pu, Candidate
Rangsit University, Thailand.

It would be very appreciated if Wenzhi Pu could collect data from this school because it is required for the study's analysis. Several conditions must be met.

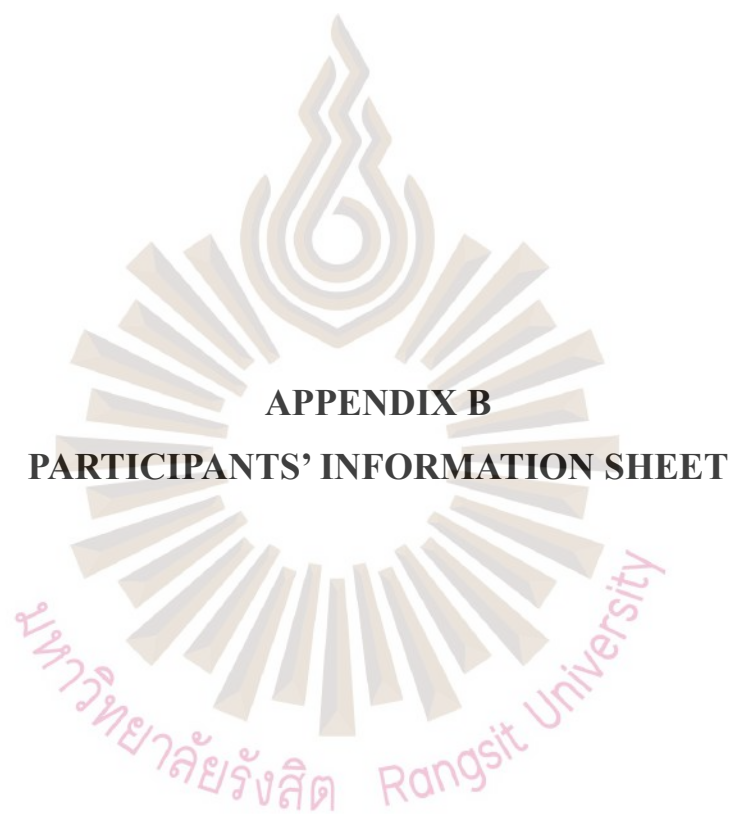
Research participants are provided with information that allows them to make an informed decision about whether or not to participate in the research (informed consent).

Following are the documents that have been reviewed and approved by the administration of Heze Luxi New District Chenxi School, Shandong, China.

Signature: _____

陈旭西 2024.6.18





APPENDIX B
PARTICIPANTS' INFORMATION SHEET



Legal Guardian Information Sheet for Participants

Dear Participant:

You have been invited to participate in a research study. Before making a decision, you must understand the reasons given for the research and its implications. Please set aside some time to carefully consider the following information. If you like, you can discuss this research with others.

Research School: Heze Luxi New District Chenxi School, Shandong, China.

Name: Wenzhi Pu **Student ID:**6509461

Studying University: Survadhep Teachers College of Rangsit University, Thailand

Research Title:

THE USE OF BLENDED LEARNING MODEL (BLM) APPROACH THROUGH "SHANBAY" APPLICATION TO IMPROVE ENGLISH VOCABULARY SKILL AMONG GRADE 8 CHINESE STUDENTS

1. What is the Purpose of the Study?

To compare the English vocabulary skill scores of Chinese grade 8 students using Blended Learning Model (BLM) approach through Shanbay application. To Investigate the learning satisfaction of Chinese grade 8 students in learning English

vocabulary using Blended Learning Model (BLM) method through shanbay application.

2. Expected Results

The use of Blended Learning Model (BLM) approach through Shanbay application will help improve the English vocabulary skill of Grade 8 Chinese students. Grade 8 Chinese students will show satisfaction with the use of Blended Learning Model (BLM) approach through Shanbay application for English vocabulary skill.

3. The Number of Participants

The researcher will randomly select 30 grade 8 students, aged 13 to 15, ensuring an equal distribution of 50% boys and 50% girls, using a simple random sampling method to prevent bias.

4. Research Procedures

The researcher will collect data in four steps. First, the participant will receive a pre-test before the intervention experiment. Secondly, the participant will receive an English vocabulary intervention course integrated with Blended Learning Model (BLM) approach by Shanbay application. Third, a post-test is conducted after all courses to understand the student's improvement in English vocabulary skill after the intervention. Fourth, questionnaire data collection is conducted to understand the learning satisfaction of using Blended Learning Model (BLM) approach through Shanbay application to improve the English vocabulary skill of Chinese grade 8 students.

5. Duration of the Study

The research period will be four weeks in length, including 8 sessions.

There is no possible risk in her research

The school has asked students who have volunteered to participate to inform their parents and have obtained consent to volunteer for the research, and the data from the study are true and valid. The school also allow students to assist her with her thesis research, either voluntarily or by voluntary experiments, by agreeing to (Wenzhi Pu), who is enrolled at Rangsit University in Thailand to research her thesis.

Signature: 陈旭

Date: 2024.6.18

Heze Luxi New District Chenxi School, Administration



มหาวิทยาลัยรังสิต Rangsit University



APPENDIX C

EXPERTS WHO VALIDATED RESEARCH INSTRUMENTS

มหาวิทยาลัยรังสิต Rangsit University

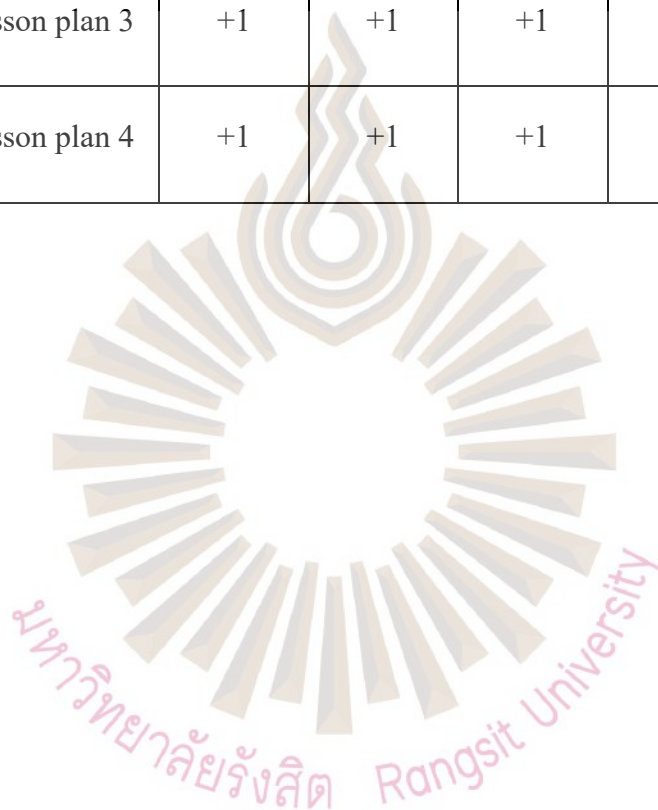
No.	Name	Position/Title	Institutes
1	Expert 1	English teacher / Associate professor	Shandong Heze Chenxi School,China
2	Expert 2	English teacher / Associate professor	Nanning Foreign Laguage School, China
3	Expert 3	English teacher / Professor	Nanning Foreign Laguage School, China





APPENDIX D
IOC OF LESSON PLANS

Item No	Attributes	Expert 1	Expert 2	Expert 3	Average	congruence
1	Lesson plan 1	+1	+1	+1	+1	Congruent
2	Lesson plan 2	+1	+1	+1	+1	Congruent
3	Lesson plan 3	+1	+1	+1	+1	Congruent
4	Lesson plan 4	+1	+1	+1	+1	Congruent





APPENDIX E
LESSON PLANS

Lesson Plan 1 (Session:1&2)

Subject: English Vocabulary

Topic: Enhancing Vocabulary Skill with Shanbay Application

Grade: 8

Class Strengths: 30 students

Time: 90 minutes (45 minutes/1 session)

Students' background knowledge:

Students have foundational vocabulary skill, they possess a basic understanding of English vocabulary but need improvement in proficiency.

Teaching and learning strategy:

Implementing Blended Learning Model (BLM) through Shanbay application.

Teaching and learning materials:

Mobile devices, Shanbay App, PPT slides, Grade 8-Volume 2 textbook, Paper, Pen.

Course Objectives:

Introduce Shanbay application and establish the foundation of vocabulary learning.

Course Activities:

1. Introduce the functions and usage of Shanbay App.
2. Select a Grade 8 textbook vocabulary list through the App for preliminary learning.
3. Classroom Activities: Vocabulary Chain Game to stimulate students' interest.
4. Online task: Complete the daily Vocabulary check-in task using the Shanbay App.

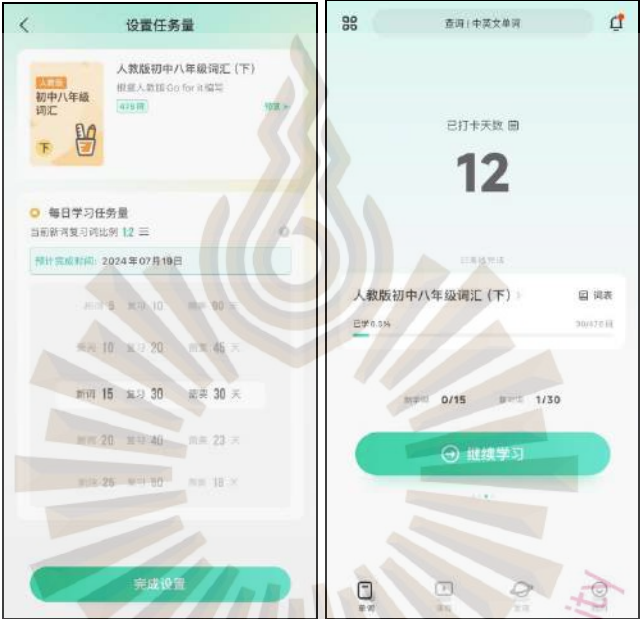
Expected Learning Results: By the end of this lesson, students should be able to:

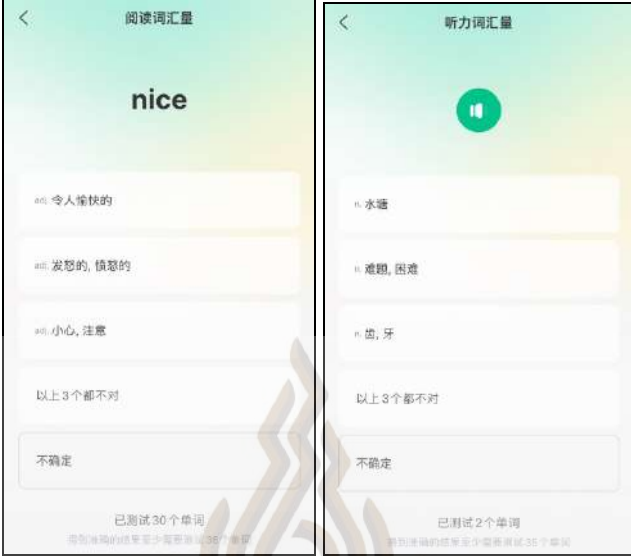

1. Understand and proficiently use the basic functions of the Shanbay App.
2. Master a certain amount of basic English vocabulary, enhancing their interest and initiative in vocabulary learning.
3. Improve vocabulary memory and application through the combination of Shanbay and vocabulary relay games.
4. Students can use the Shanbay App to maintain uninterrupted vocabulary learning both inside and outside the classroom.



Session 1 (45 minutes)

Stage (Time)	Teacher's activities	Student's activities
Greeting (5 minutes)	Step 1 (Attendance Check): Greet students and check attendance. Step 2 (Preparation Check): Ensure students have the	1. Respond to greetings.

Stage (Time)	Teacher's activities	Student's activities
	necessary learning tools, such as mobile devices, headphones and textbook.	2. Check equipment.
Warm-up (5 minutes)	<p>Step 1 (Topic Introduction): "Today we will discuss key factors in improving English skills. What do you think is the important factor in enhancing English ability?" (Wait for student responses)</p> <p>Step 2 (Identify Topic): "Great, you mentioned vocabulary. Indeed, vocabulary is crucial in our English learning journey."</p> <p>Step 3 (Discuss Vocabulary Importance): "Why is understanding and remembering English words important? Please give examples."</p> <p>Step 4 (Introduce App): "Knowing more words helps us excel in reading, listening comprehension, and expression. Some students like using apps to learn new words. What vocabulary apps have you heard of?"</p> <p>Step 5 (Introduce Teaching App): "Today, we will introduce an app called "Shanbay" that helps us learn and remember new vocabulary more easily. Let's experience it together."</p>	3. Participate in the discussion. 4. Share experiences.
Introduction to Shanbay App (10 minutes)	<p>Step 1 (Introduction to Shanbay Family): Briefly introduce Shanbay App which has six independent applications: Vocabulary, Listening, Speaking, Reading, Learning Classroom, and Exam Preparation.</p> <p>Step 2 (Advantages of Shanbay Vocabulary App):</p> <ol style="list-style-type: none"> 1. Personalized learning goals. 2. Gamified and diversified learning methods. 3. Timely feedback and reward mechanisms. 4. Scientific memorization techniques. 5. Various reinforcement and review features. <p>Step 3 (Operation Guidance):</p> <ol style="list-style-type: none"> 1. Teacher guides students to download and install the Shanbay App on their devices, complete registration 	5. Watch the teacher's demonstration to understand the app's functions and features. 6. Download and install Shanbay App, complete registration. 7. Complete setup of Shanbay App.



Stage (Time)	Teacher's activities	Student's activities
	<p>and login.</p> <p>2. Teacher demonstrates the Shanbay App interface on the big screen, guiding students through the main functions such as logging in, selecting word books, learning and consolidating vocabulary, and how to view and share learning achievements.</p> 	
Vocabulary Skill Test with Shanbay (10 minutes)	<p>Step 1 (Complete Test): Guide students to complete the vocabulary skill test (reading part and listening part) on Shanbay App within 10 minutes, assisting them and providing help as needed.</p>	<p>9. Complete the vocabulary skills test</p> <p>10. Seek help from the teacher if encountering difficulties.</p> <p>share the assessment results in the group.</p>

Stage (Time)	Teacher's activities	Student's activities
	 <p>Step 2: Create a WeChat class group and guide students to send their test assessment results to the group to understand each student's vocabulary level.</p> 	
<p>Basic Vocabulary Learning with Shanbay App (10 minutes)</p>	<p>Step 1: Help students find the vocabulary list from the 8th grade textbook and demonstrate how to use the app for vocabulary learning, including pronunciation, meaning, example sentences, exercises, and reviews.</p>	<p>11. Follow the teacher's guidance to start using the app to learn basic vocabulary.</p>

Stage (Time)	Teacher's activities	Student's activities
	 <p>Step 2: Let students share their completed test results with the teacher using the Shanbay App's check-in feature.</p>	<p>12.</p>
<p>Conclusion and Homework Assignment (5 minutes)</p>	<p>Step 1: Summarize the learning content of this lesson and let students share their feelings about learning vocabulary using Shanbay App today.</p> <p>Step 2: Assign online learning tasks, setting daily vocabulary learning goals (10-15 words) based on individual abilities, with daily check-in and sharing in the WeChat group.</p> 	<p>13. Note homework requirements and review today's learning content.</p>

Stage (Time)	Teacher's activities	Student's activities
Online learning tasks-1		
Vocabulary Check-in (every day)	<p>Step 1: The teacher urges students to complete the learning of Unit 1 words on the Shanbay App every day and take notes in the textbook.</p> <p>Step 2: After completing the learning task, students share the learning check-in of the Shanbay App in the WeChat group, and teachers and students interact and answer students' questions.</p>	<p>14. Study vocabulary with Shanbay.</p> <p>15. Take notes on the textbook.</p> <p>16. Share Shanbay words check-in</p>
Session 2 (45 minutes)		
Stage (Time)	Teacher's activities	Student's activities
Greeting and Check (5 minutes)	<p>Step 1 (Attendance Check): Greet students and check attendance.</p> <p>Step 2 (Preparation Check): Ensure students have the necessary learning tools, such as mobile devices and headphones.</p>	<p>1. Respond to greetings.</p> <p>2. Check equipment.</p>
Online Learning Review (5 minutes)	<p>Step 1: Ask students to use the multimedia screen to share their check-in status, study notes, and the number of words learned, study duration, and learning experiences on Shanbay App.</p> <p>Step 2: Ask students to share the advantages and limitations they encountered when using Shanbay App:</p>	<p>3. Participate in the discussion.</p> <p>4. Share experiences.</p>
Vocabulary Consolidation (15 minutes)	<p>Step 1: Guide students to quickly review all the words in Unit 1 using the Shanbay App.</p> <div data-bbox="536 1601 1042 1910" data-label="Image"> </div> <p>Step 2: Use flashcards generated by Shanbay to test students on word pronunciation, meaning, and</p>	<p>5. Review learned vocabulary.</p> <p>6. Complete the teacher's test.</p>

Stage (Time)	Teacher's activities	Student's activities
	<p>proficiency to evaluate their online self-study results.</p> <div data-bbox="507 403 1149 750" style="border: 1px solid black; padding: 5px;"> <p>press /pres/</p> <p>n. 报刊, 杂志; 记者; 新闻界; 按压 vt. 对.....施加压力, 迫使</p> <p>关联短语</p> <p>press release (向媒体发布的) 新闻稿 press conference 新闻发布会, 记者招待会 press forward (使)挤向前,(使)拥向前; 奋力继续; 奋...</p> </div> <div data-bbox="507 772 1149 1691" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">我的单词卡片</p> <p>我的单词卡片</p> <p>Date: _____</p> <p>核心短语</p> <div data-bbox="518 884 821 1030"> <p>press /pres/</p> <p>n. 报刊, 杂志; 记者; 新闻界; 按压 vt. 对.....施加压力, 迫使</p> <p>关联短语</p> <p>press release (向媒体发布的) 新闻稿 press conference 新闻发布会, 记者招待会 press forward (使)挤向前,(使)拥向前; 奋力继续; 奋...</p> </div> <div data-bbox="837 884 1141 1030"> <p>sick /sɪk/</p> <p>adj. 患病的; 不舒服的</p> <p>关联短语</p> <p>feel sick 恶心 get sick 生病 sick leave 病假; 病假期</p> </div> <div data-bbox="518 1052 821 1108"> <p>nosebleed /ˈnoʊzbliːd/</p> <p>n. 鼻出血</p> </div> <div data-bbox="837 1041 1141 1187"> <p>knee /neɪ/</p> <p>n. 膝盖</p> <p>关联短语</p> <p>fall on one's knees (祈祷、恳求、屈服等时)跪下 drop on one's knees (祈祷、恳求、屈服等时)跪下 get on one's knees (祈祷、恳求、屈服等时)跪下</p> </div> <div data-bbox="518 1120 821 1265"> <p>breathe /brɪˈθiː/</p> <p>v. 呼吸</p> <p>关联短语</p> <p>breathe out 呼出; 吐气 breathe in 吸气 breathing space 短暂休息; 喘息时间</p> </div> <div data-bbox="837 1198 1141 1321"> <p>ourselves /ˈɔːrseɪvz/</p> <p>pron. 我们自己</p> <p>关联短语</p> <p>by ourselves 我们单独地; 我们独自地; 我们自力地 all by ourselves 我们单独地; 我们独自地; 我们自力地</p> </div> <div data-bbox="518 1276 821 1377"> <p>climber /ˈklɪmbər/</p> <p>n. 登山者; 攀登者; 攀登的物体; 攀缘植物</p> <p>关联短语</p> <p>Social climber 靠权贵金钱以挤入上层社会的人; 趋炎...</p> </div> <div data-bbox="837 1332 1141 1388"> <p>be used to /biː juːzd tuː/</p> <p>phrase. 习惯于</p> </div> <div data-bbox="518 1388 821 1545"> <p>risk /rɪsk/</p> <p>n. 冒险 vt. 冒.....的风险</p> <p>关联短语</p> <p>at all risks 无论有什么危险 at risk 处境危险; 遭受危险 run the risk 冒险</p> </div> <div data-bbox="837 1400 1141 1456"> <p>take risks /teɪk rɪzks/</p> <p>phrase. 冒险</p> </div> <div data-bbox="518 1556 821 1612"> <p>kilo /ˈkiːloʊ/</p> <p>n. 千; 千克; 千米</p> </div> <div data-bbox="837 1467 1141 1523"> <p>accident /ˈæksɪdənt/</p> <p>n. 事故; 意外的事</p> </div> <div data-bbox="837 1534 1141 1590"> <p>situation /ˌsɪtuˈeɪʃən/</p> <p>n. 状况; 形势</p> </div> <div data-bbox="837 1601 1141 1668"> <p>rock /rɒk/</p> <p>n. 岩石 vi. 摇摆</p> </div> <p style="text-align: right;">Page 1</p> </div>	<p>7.</p>
<p>Vocabulary Relay Game (15 minutes)</p>	<p>Step 1: Explain the rules of the vocabulary relay game: one student says a word, and the next student says a word that starts with the last letter of the previous word. This can be done in groups to see which group can say more words.</p> <p>Step 2: Provide hints or help as needed to ensure</p>	<p>8. Actively participate in the game, trying to say as many words as possible.</p>

Stage (Time)	Teacher's activities	Student's activities
	everyone can participate.	
Conclusion and Homework Assignment (5 minutes)	Encourage students to spend time on the app daily to study and review vocabulary. Assign homework: Use the Shanbay App to complete weekly vocabulary learning tasks and record learning progress.	9. Note homework requirements and review today's learning content.
Online learning tasks-2		
Vocabulary Review Check-in (every day)	<p>Step 1: The teacher guides students in the WeChat group to complete daily vocabulary learning tasks on the Shanbay App and check in</p> <p>Step 2: The teacher guides and supervises students to complete vocabulary review tasks on the Shanbay App.</p> <div style="display: flex; justify-content: space-around;">   </div> <p>Step 3: Use the PDF review document automatically generated by the Shanbay App to complete vocabulary review tasks: Chinese and English word dictation, flashcard review. and share them in the group</p>	<p>10. Complete daily vocabulary learning tasks and check in</p> <p>11. Complete vocabulary review tasks on the Shanbay app.</p> <p>12. Use the PDF review document automatically generated by the Shanbay app to complete the vocabulary review and share it in the group</p>

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Lesson Plan 2 (Session:3&4)

Subject: English Vocabulary

Topic: Vocabulary Memorization Techniques

Grade: 8

Class Strengths: 30 students

Time: 90 minutes (45 minutes/1 session)

Students' background knowledge:

Students have foundational vocabulary skill, they possess a basic understanding of English vocabulary but need improvement in proficiency.

Teaching and learning strategy:

Implementing Blended Learning Model (BLM) through Shanbay application.

Teaching and learning materials:

Mobile devices, Shanbay App, PPT slides, Grade 8-Volume 2 textbook, Paper, Pen.

Course Objectives:

Teach one vocabulary memorization technique: Derivative Association Method.



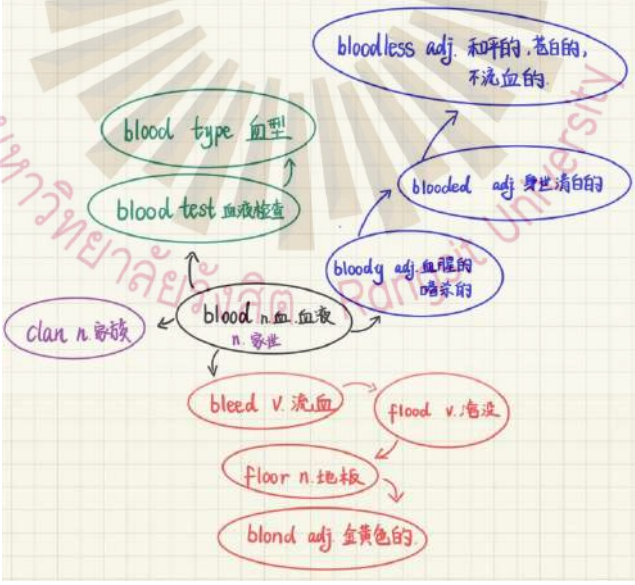
Course Activities:

- PPT presentation on various vocabulary memorization techniques.
- Use words provided by Shanbay App and demonstrate word formation and semantic association to link words together.
- Group activity: Design vocabulary trees using mind maps to show related words, with each group of 5 students (6 groups in total) presenting their work.
- Online task: Conduct group collaboration to learn the derivational association method and present it with mind maps.

Expected Learning Results: By the end of this lesson, students should be able to:

1. Understand and apply the Derivative Association Method provided by Shanbay App to improve vocabulary memorization skills.
2. Learn how to design vocabulary trees collaboratively by using mind maps to show associations between words on the Shanbay App.
3. Enhance vocabulary acquisition speed and quality, laying a foundation for deeper vocabulary learning.
4. Students can use the Shanbay App to maintain uninterrupted vocabulary learning both inside and outside the classroom.

Session 3 (45 minutes)		
Stage (Time)	Teacher's activities	Student's activities
Greeting (5 minutes)	<p>Step 1 (Attendance Check): Greet students and check attendance.</p> <p>Step 2 (Preparation Check): Ensure students have the necessary learning tools, such as mobile devices, headphones and textbook.</p>	<p>1. Respond to greetings.</p> <p>2. Check equipment.</p>
Online Learning Review (5 minutes)	Step 1: Ask students to share their learning and review experiences, show their personalized review notebooks, and talk about their use of the Shanbay App for word review.	<p>3. Participate in discussion.</p> <p>4. Share experiences.</p>
Lesson Introduction (5 minutes)	<p>Introduce the importance of vocabulary memorization techniques:</p> <p>Step 1 (Topic Introduction): "What do you think is the biggest difficulty in learning English?"</p> <p>Step 2 (Theme Confirmation): "Great, you mentioned 'memorizing words'. Can anyone share a good method for memorizing words?"</p> <p>Step 3 (Introduce Association Memory Method): "We know there are many good memorization methods. Today, I recommend a great method – Derivative Association Method"</p> <p>Step 4: PPT detailed introduction of the Derivative Association Method with examples of how to apply it in English vocabulary learning.</p>	<p>5. participate in discussions, considering</p> <p>6. sharing their views on the importance of vocabulary memorization.</p>
Shanbay App Demonstration (10 minutes)	<p>Step 1: Guide students to open the Shanbay app, demonstrating the words provided by the app, word formation, and semantic association features.</p> <p>Step 2: Choose some example words, showing how to use the Derivative Association Method for vocabulary memorization.</p>	<p>7. follow the teacher's instructions to operate the Shanbay App and understand the application of the Derivative Association Method.</p>

Stage (Time)	Teacher's activities	Student's activities
	<div style="display: flex; justify-content: space-around;">   </div> <p>Step 3: Provide a 5-minute explanation on how to use mind maps to connect related words using the Derivative Association Method.</p> 	<p>8.</p>
<p>Practice and Group Activity (15 minutes)</p>	<p>Step 1: Divide students into 6 groups, 5 students per group.</p> <p>Step 2: Select 2-3 words for each group and create a "Vocabulary Memory Tree" using mind maps according to the Derivative Association Method to</p>	<p>9. divide into groups, discuss and choose words, then start designing their</p>

Stage (Time)	Teacher's activities	Student'activities
	<p>show related words.</p> <p>Step 3: Assign tasks to each group and allow them to choose their words.</p> <p>Step 4: Start designing their vocabulary trees, using mind maps to display the linked words.</p>	<p>vocabulary</p> <p>memory trees.</p> <p>10. collaborate in groups, applying the Derivative Association Method to complete the mind maps.</p>
Summary and Assignment (5 minutes)	Step 1: Encourage students to spend time daily on the app learning and reviewing vocabulary, and check in via the WeChat group.	11. Note down the assignments .
Online learning tasks-3		
Vocabulary Check-in (every day)	<p>Step 1: Assign an online learning task: Based on the groups formed in class, collaboratively study the Derivative Association Method, and discuss in the group to help solve learning problems.</p> <p>Step 2: Each group selects three keywords for group discussion and collaboration to create a mind map, to be presented in the next class.</p>	12. Note down the assignments and tasks, preparing to continue learning and discussing after class.
Session 4 (45 minutes)		
Stage (Time)	Teacher's activities	Student'activities
Greeting and Check (5 minutes)	<p>Step 1 (Attendance Check): Greet students and check attendance.</p> <p>Step 2 (Preparation Check): Ensure students have the necessary learning tools, such as mobile devices and headphones.</p>	<p>1. Respond to greetings.</p> <p>2. Check equipment.</p>
Online Learning Review (5 minutes)	Step 1: Ask students to share their learning experiences using the Shanbay App to apply the Derivative Association Method.	<p>3. Participate in the discussion.</p> <p>4. Share experiences.</p>

Stage (Time)	Teacher's activities	Student'activities
Class Activity Presentation (30 minutes)	<p>Step 1: Each of the 6 groups presents their mind maps showcasing the application of the Derivative Association Method on the three words they studied online after the previous session.</p> <p>Step 2: Teachers and students interact and give compliments and suggestions for revisions to mind maps</p>	<p>5. Each group takes turns presenting their vocabulary memory trees.</p> <p>6. Explain their choice of words and the process and reasons for their associations during the presentation.</p> <p>7. Other students listen and provide questions or feedback.</p>
Summary and Feedback (10 minutes)	<p>Step 1: Summarize the classroom presentations, focusing on the principles of the Derivative Association Method and its application in vocabulary memorization.</p> <p>Step 2: Encourage students to use the Shanbay App for vocabulary learning and apply the memorization techniques learned today.</p>	<p>8. Participate in the lesson summary, review what was learned.</p>
Online learning tasks-4		
Vocabulary Check-in (every day)	<p>Step 1(Assign homework) : Each student uses the Derivative Association Method to memorize new words and share their mind maps in the WeChat group.</p> <p>Step 2: Give timely feedback, offer encouragement and participate in group discussions</p>	<p>9. Note down the homework assignment and prepare to apply the learned memorization techniques for vocabulary study.</p>

Lesson Plan 3 (Session:5&6)

Subject: English Vocabulary

Topic: Roots and Affixes of Vocabulary

Grade: 8

Class Strengths: 30 students

Time: 90 minutes (45 minutes/1 session)

Students' background knowledge:

Students have foundational vocabulary skill, they possess a basic understanding of English vocabulary but need improvement in proficiency.

Teaching and learning strategy:

Implementing Blended Learning Model (BLM) through Shanbay application.

Teaching and learning materials:

Mobile devices, Shanbay App, PPT slides, Grade 8-Volume 2 textbook, paper, pen.

Course Objectives:

Learn roots and affixes and expand vocabulary with Shanbay.

Course Activities:

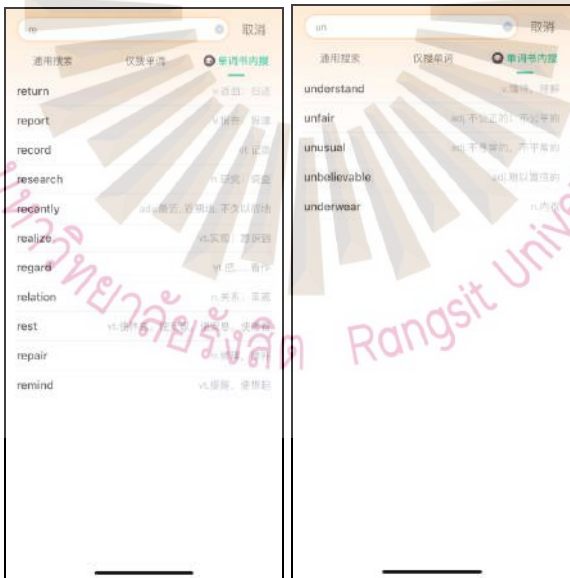
1. Learn roots and affixes: Learn common roots and affixes through the roots and affixes chapter of Shanbay App.
2. Analyze word structure: Discuss how to understand the meaning of words through roots and affixes.
3. Classroom activity: Root and affix word game.
4. Online task: Summarize the meaning of common roots and affixes through Shanbay App and check in in the group.

Expected Learning Results: By the end of this lesson, students should be able to:

1. Be familiar with common roots and affixes to improve vocabulary learning ability.
2. Master the method of analyzing word structure and understand the meaning of words from the roots and affixes.
3. Students can use the Shanbay App to maintain uninterrupted vocabulary learning both inside and outside the classroom.

Session 5 (45 minutes)

Stage (Time)	Teacher's activities	Student's activities
Greeting (5 minutes)	Step 1 (Attendance Check): Greet students and check attendance.	1. Respond to greetings.

Stage (Time)	Teacher's activities	Student's activities
	Step 2 (Preparation Check): Ensure students have the necessary learning tools, such as mobile devices, headphones and textbook.	2. Check equipment.
Online Learning Review (5 minutes)	Step 1: Ask students to share their learning and review experiences, show their personalized review notebooks, and talk about their use of the Shanbay App for word review.	3. Share experiences.
Introducing the Topic (5 minutes)	Step 1: Lead a discussion on the importance of vocabulary memory with questions like "How do you find it easier to remember words?" Step 2: Explain the day's content: learning roots and affixes and their application in vocabulary memory.	4. Participate in discussion.
Learning and Practice (10 minutes)	Step 1: Guide students to open the Shanbay app, go to the roots and affixes section, and learn common roots and affixes like "un-", "re-", "pre-".  Step 2: Present a PPT explaining these common roots and affixes and their meanings in detail.	5. Learn roots and affixes through the Shanbay app. 6. Engage in the PPT presentation and take notes.
Roots and Affixes Word Formation Game	Step 1: Explain the game rules: each group receives cards with roots and affixes, and members need to form correct words by arranging them and explaining their meanings.	7. Understand and participate in the game.

Stage (Time)	Teacher's activities	Student's activities
(15 minutes)	Step 2: Groups play the game within a time limit and count the number of correct words formed.	8. Cooperate within groups to form words.
Assignment (5 minutes)	Step 1: Encourage students to spend time daily on the app learning and reviewing vocabulary, and check in via the WeChat group.	9. Accept the assignment.
Online learning tasks-5		
Vocabulary Check-in (every day)	<p>Step 1: Divide students into 6 groups, 5 students per group.</p> <p>Step 2: Each group completes a mind map of at least 10 common roots and affixes and related vocabulary in preparation for the next class presentation.</p> <p>Step 3: Students need to continue reviewing these roots and affixes through the Shanbay app and check in daily in the WeChat group.</p>	10. Note down the assignments and tasks, preparing to continue learning and discussing after class.
Session 6 (45 minutes)		
Stage (Time)	Teacher's activities	Student's activities
Greeting and Check (5 minutes)	<p>Step 1 (Attendance Check): Greet students and check attendance.</p> <p>Step 2 (Preparation Check): Ensure students have the necessary learning tools, such as mobile devices and headphones.</p>	<p>1. Respond to greetings.</p> <p>2. Check equipment.</p>
Online Learning Review (5 minutes)	Step 1: Briefly review the roots and affixes and their applications learned in the last session.	3. Review and answer questions.
Group Presentation and Discussion (30 minutes)	<p>Step 1: Each group presents their mind map, with a representative from each group reporting (3-4 minutes per group).</p> <p>Step 2: During presentations, the teacher asks questions and guides students to analyze the practical applications of roots and affixes.</p> <p>Step 3: Class discussion: the teacher and other students</p>	<p>4. Present mind maps.</p> <p>5. Answer questions and participate in discussions.</p>

Stage (Time)	Teacher's activities	Student'activities
	ask questions and discuss the presenting group's findings to further understand the application of roots and affixes.	
Summary and Rewards (5 minutes)	Step 1: Summarize the excellent performances and areas needing improvement in classroom activities. Step 2: Emphasize the importance of roots and affixes in remembering words. Step 3: Reward students or groups who performed well in classroom activities and presentations with small gifts or points.	6. Listen to the summary and receive rewards.
Online learning tasks-6		
Vocabulary Check-in (every day)	Step 1: Continue learning 20 new words on the Shanbay app, combining roots and affixes for memory, and write study reflections to post in the Shanbay group.	7. Continue learning and discussing after class.

Lesson Plan 4 (Session:7&8)

Subject: English Vocabulary

Topic: Vocabulary and Context.

Grade: 8

Class Strengths: 30 students

Time: 90 minutes (45 minutes/1 session)

Students' background knowledge:

Students have foundational vocabulary skill, they possess a basic understanding of English vocabulary but need improvement in proficiency.

Teaching and learning strategy:

Implementing Blended Learning Model (BLM) through Shanbay application.

Teaching and learning materials:

Mobile devices, Shanbay App, PPT slides, Grade 8-Volume 2 textbook, paper, pen.

Course Objectives:

Learn and use vocabulary in context with Shanbay.

Course Activities:


1. Use the example sentence function of the Shanbay App to learn how to use vocabulary in sentences.
2. Analyze example sentences and discuss the contextual meaning of vocabulary.
3. Classroom activities: Create dialogues based on vocabulary.
4. Online task: Use Shanbay to learn words and make sentences based on examples.

Expected Learning Results: By the end of this lesson, students should be able to:

1. Learn and use vocabulary in specific contexts.
2. Master the use of vocabulary in example sentences.
3. Improve students' understanding and application of new vocabulary.
4. Students can use the Shanbay App to maintain uninterrupted vocabulary learning both inside and outside the classroom.

Session 7 (45 minutes)

Stage (Time)	Teacher's activities	Student's activities
Greeting (5 minutes)	<p>Step 1 (Attendance Check): Greet students and check attendance.</p> <p>Step 2 (Preparation Check): Ensure students have the necessary learning tools, such as mobile devices, headphones and textbook.</p>	<ol style="list-style-type: none"> 1. Respond to greetings. 2. Check equipment.

Stage (Time)	Teacher's activities	Student's activities
Online Review (5 minutes)	Step 1: Ask students to share their learning and review progress, show their personalized review sheets, and discuss their experience using Shanbay.	3. Participate in discussion, share experiences.
Topic Introduction (5 minutes)	<p>Step 1: Display on the big screen how to use the example sentence feature in the Shanbay app to study new vocabulary.</p> <p>Step 2: Demonstrate how to view example sentences, understand meanings, and apply them in different contexts.</p>  <p>The screenshot shows the word 'mean' in the Shanbay app. It includes the phonetic transcription /mi:n/, the Chinese characters '不认识的' (don't know) and '太简单' (too simple), and the source '中小学词典' (Primary and Secondary School Dictionary) and '柯林斯词典' (Collins Dictionary). The definitions are: vt. 意思是, 意指 (means, refers to) and adj. 刻薄的; 卑鄙的; 吝啬的 (mean, despicable, stingy). Example sentences are provided: 'What does this sentence mean?' (这个句子是什么意思?) and 'I don't like her because she is mean.' (我不喜欢她, 因为她很刻薄.). The word 'meaning' is also shown with the definition: n. 意思, 含意, 价值, (想要表达的) 意义 (meaning, value, (what you want to express) meaning).</p>	4. Watch the demonstration, participate in the discussion.
Analyzing Examples (10 minutes)	Step 1: Choose some new vocabulary and their example sentences, lead students to analyze them, discussing the meaning and usage in different sentences.	5. Participate in analysis and discussion, share insights.
Student Exercise (15 minutes)	<p>Step 1: Students use the Shanbay app to find examples of new vocabulary and try to analyze them, discuss these examples in groups, and share their understanding and analysis.</p> <p>Step 2: Divide students into 6 groups, 5 students per group.</p> <p>Step 3: The teacher asked each group to share a new word and its example sentence to test the students' comprehension ability.</p>	6. Work in groups to find examples, analyze, and discuss.

Stage (Time)	Teacher's activities	Student'activities
Homework (5 minutes)	Step 1: Summarize the content of this course and arrange online learning tasks:	7. Accept the assignment.
Online learning tasks-7		
Vocabulary Check-in (every day)	<p>Step 1: Require students to conduct online learning and discussion based on their class groups.</p> <p>Step 2: Require students to learn words and examples through Shanbay.</p> <p>Step 3: Require students to write sentences based on examples and try to use the words with different meanings in sentences.</p> <p>Step 4: Each group chooses three words to share in the next class.</p> <p>Step 5: Post the daily study plan in the WeChat group. The teacher corrects mistakes and provides daily encouragement to students for their performance.</p>	<p>8. Step 1: Group Online Learning and Discussion.</p> <p>9. Learning Words and Example Sentences Through Shanbay.</p> <p>10. Writing Sentences and Multiple-meaning Sentences.</p> <p>11. Posting Learning Plans and Receiving Feedback.</p>
Session 8 (45 minutes)		
Stage (Time)	Teacher's activities	Student'activities
Greeting (5 minutes)	<p>Step 1 (Attendance Check): Greet students and check attendance.</p> <p>Step 2 (Preparation Check): Ensure students have the necessary learning tools, such as mobile devices, headphones and textbook.</p>	<p>1. Respond to greetings.</p> <p>2. Check equipment.</p>
Group Presentation and Discussion (20 minutes)	<p>Step 1: Each group presents the new words and sentences they have learned, and each group representative reports (3-4 minutes per group).</p> <p>Step 2: During the report, the teacher asks questions and guides students to analyze the structure of the sentence and the actual application scenarios.</p>	<p>3. Show the learned vocabulary, examples and sentences.</p> <p>4. Answer</p>

Stage (Time)	Teacher's activities	Student's activities
	Step 3: Class discussion: The teacher and other students ask questions.	questions and join in the discussion.
Group Collaboration (15 minutes)	<p>Step 1: Divide students into groups and assign each group a set of new vocabulary. Explain the task: each group uses the assigned vocabulary to write dialogues.</p> <p>Step 2: Circulate to offer guidance, help, and suggestions. Students collaborate within their groups to write dialogues.</p> <p>Step 3: Each group performs their written dialogues, and other students can ask questions or offer feedback.</p>	<p>5. Form groups and listen to instructions.</p> <p>6. Collaborate within groups to write dialogues.</p> <p>7. Perform dialogues, engage in Q&A and feedback.</p>
Summary & Homework (5 minutes)	<p>Step 1: Emphasize the importance of learning and using vocabulary in specific contexts.</p> <p>Step 2: Assign homework: complete a week's vocabulary learning task via Shanbay app and use the example sentence feature for review.</p> <p>Step 3: Record study progress and share check-ins in the WeChat class group.</p>	8. Listen to the summary, note down the homework.
Online learning tasks-8		
Vocabulary Check-in (every day)	Step 1: complete a week's vocabulary learning task via Shanbay app and use the example sentence feature for review. Record study progress and share check-ins in the WeChat class group.	9. Posting Learning Plans and Receiving Feedback.

The logo of Rangsit University is a stylized sunburst or flame-like emblem. It features a central circular motif with a flame-like top, surrounded by radiating lines that form a semi-circle. The entire logo is rendered in a light brown or tan color.

APPENDIX F
IOC OF ENGLISH VOCABULARY SKILL TEST
(PRE-TEST & POST-TEST)

มหาวิทยาลัยรังสิต Rangsit University

Item No	Section	Expert 1	Expert 2	Expert 3	Average	congruence
1	Section One	+1	+1	+1	+1	Congruent
2	Section two	+1	+1	+1	+1	Congruent
3	Section three	+1	+1	+1	+1	Congruent
4	Section four	+1	+1	+1	+1	Congruent



The image features a large, faint watermark of the Rangsit University logo in the background. The logo consists of a stylized flame or sunburst shape at the top, with radiating lines below it, and the university's name in Thai and English at the bottom.

APPENDIX G

**KR-20 ANALYSIS OF ENGLISH VOCABULARY SKILL TEST
(PRE-TEST & POST-TEST)**

มหาวิทยาลัยรังสิต Rangsit University

KR-20 analysis for English Vocabulary Skill Test

Students' score

Section 1

Section 1																																
No.	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Total	
1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	25
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Section 2

Section 2											
No.	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
1	1	1	1	1	0	0	1	1	1	1	8
2	0	1	1	1	1	1	0	1	1	1	8
3	1	1	0	1	1	0	1	1	1	0	7
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7	0	0	0	0	1	0	1	0	0	1	3
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13	1	0	1	0	1	1	0	1	1	0	6
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29	0	1	0	1	0	0	0	0	0	0	2
30	1	1	0	1	0	0	1	0	1	0	5

Section 3

Section 3											
No.	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
1	0	1	1	1	1	0	1	1	1	0	7
2	1	0	1	1	1	1	0	1	1	1	8
3	0	1	1	0	0	0	1	0	1	0	4
4	1	0	0	0	1	0	0	0	0	1	3
5	0	0	1	1	0	1	1	0	0	1	5
6	1	1	0	0	0	1	0	1	1	0	5
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17	0	1	1	1	0	1	0	0	1	0	5
18	1	0	1	0	1	1	0	1	0	1	6
19	0	1	0	1	0	0	0	1	1	0	4
20	1	1	0	0	0	1	0	0	0	0	3
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22	1	0	1	0	1	1	0	0	0	1	5
23	0	1	0	1	0	0	0	1	1	0	4
24	1	1	1	0	1	0	1	1	1	1	8
25	0	0	1	1	1	0	1	0	1	1	6
26	1	0	0	1	0	1	1	1	0	0	5
27	0	1	0	1	1	0	1	1	1	0	6
28	1	0	1	0	1	1	1	1	1	1	8
29	0	1	0	0	1	0	0	1	0	0	3
30	1	1	0	1	1	1	0	0	0	1	6

Section 4

Section 4											
No.	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total
1	1	0	1	1	1	1	1	1	1	1	9
2	1	0	1	1	0	1	1	1	1	1	8
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7	0	1	1	0	1	0	1	1	0	1	5
8	1	0	1	1	0	1	1	1	1	1	7
9	0	1	1	0	1	0	1	1	1	1	7
10	1	0	1	1	1	1	1	1	1	1	9
11	0	0	1	1	1	0	1	0	1	1	6
12	1	1	0	1	1	1	0	1	1	1	8
13	0	0	1	1	0	1	0	0	1	0	4
14	1	1	0	1	0	0	1	0	0	1	5
15	0	0	1	0	1	1	0	1	0	1	5
16	0	1	0	0	1	0	1	1	0	1	5
17	1	0	1	1	0	1	0	1	0	0	5
18	0	1	0	1	0	1	1	0	0	0	4
19	1	0	1	0	1	0	1	0	0	0	4
20	0	0	1	0	1	1	1	1	0	0	5
21	1	1	0	1	1	1	1	0	1	0	7
22	0	1	0	0	1	1	0	0	1	0	4
23	1	0	1	0	0	1	0	0	0	0	3
24	0	1	0	1	1	1	1	1	0	1	7
25	1	0	0	0	1	1	0	1	1	0	5
26	0	1	1	0	0	0	0	1	0	0	3
27	1	0	0	1	1	0	0	0	1	1	5
28	1	1	1	1	1	0	1	1	1	0	8
29	1	0	0	1	0	0	1	0	0	0	3
30	0	0	1	0	1	1	0	0	0	1	4

After calculation, the mean value and total variance were shown below:

$$\text{Mean } (\bar{X}) = 36.87$$

$$\text{Total Variance} = 76.60$$

The correct rate of each item:

Number of students who answered Item 1 correctly = 26

Proportion of students who answered Item 1 correctly = $26 / 30 = 0.87$

Number of students who answered Item 2 correctly = 26

Proportion of students who answered Item 2 correctly = $26 / 30 = 0.87$

Number of students who answered Item 3 correctly = 20

Proportion of students who answered Item 3 correctly = $20 / 30 = 0.67$

Number of students who answered Item 4 correctly = 19

Proportion of students who answered Item 4 correctly = $19 / 30 = 0.63$

Number of students who answered Item 5 correctly = 21

Proportion of students who answered Item 5 correctly = $21 / 30 = 0.70$

Number of students who answered Item 6 correctly = 17

Proportion of students who answered Item 6 correctly = $17 / 30 = 0.57$

Number of students who answered Item 7 correctly = 21

Proportion of students who answered Item 7 correctly = $21 / 30 = 0.70$

Number of students who answered Item 8 correctly = 21

Proportion of students who answered Item 8 correctly = $21 / 30 = 0.70$

Number of students who answered Item 9 correctly = 19

Proportion of students who answered Item 9 correctly = $19 / 30 = 0.63$

Number of students who answered Item 10 correctly = 20

Proportion of students who answered Item 10 correctly = $20 / 30 = 0.67$

Number of students who answered Item 11 correctly = 15

Proportion of students who answered Item 11 correctly = $15 / 30 = 0.50$

Number of students who answered Item 12 correctly = 20

Proportion of students who answered Item 12 correctly = $20 / 30 = 0.67$

Number of students who answered Item 13 correctly = 19

Proportion of students who answered Item 13 correctly = $19 / 30 = 0.63$

Number of students who answered Item 14 correctly = 24

Proportion of students who answered Item 14 correctly = $24 / 30 = 0.80$

Number of students who answered Item 15 correctly = 17

Proportion of students who answered Item 15 correctly = $17 / 30 = 0.57$

Number of students who answered Item 16 correctly = 22

Proportion of students who answered Item 16 correctly = $22 / 30 = 0.73$

Number of students who answered Item 17 correctly = 22

Proportion of students who answered Item 17 correctly = $22 / 30 = 0.73$

Number of students who answered Item 18 correctly = 16

Proportion of students who answered Item 18 correctly = $16 / 30 = 0.53$

Number of students who answered Item 19 correctly = 23

Proportion of students who answered Item 19 correctly = $23 / 30 = 0.77$

Number of students who answered Item 20 correctly = 19

Proportion of students who answered Item 20 correctly = $19 / 30 = 0.63$

Number of students who answered Item 21 correctly = 23

Proportion of students who answered Item 21 correctly = $23 / 30 = 0.77$

Number of students who answered Item 22 correctly = 26

Proportion of students who answered Item 22 correctly = $26 / 30 = 0.87$

Number of students who answered Item 23 correctly = 15

Proportion of students who answered Item 23 correctly = $15 / 30 = 0.50$

Number of students who answered Item 24 correctly = 20

Proportion of students who answered Item 24 correctly = $20 / 30 = 0.67$

Number of students who answered Item 25 correctly = 19

Proportion of students who answered Item 25 correctly = $19 / 30 = 0.63$

Number of students who answered Item 26 correctly = 15

Proportion of students who answered Item 26 correctly = $15 / 30 = 0.50$

Number of students who answered Item 27 correctly = 12

Proportion of students who answered Item 27 correctly = $12 / 30 = 0.40$

Number of students who answered Item 28 correctly = 20

Proportion of students who answered Item 28 correctly = $20 / 30 = 0.67$

Number of students who answered Item 29 correctly = 18

Proportion of students who answered Item 29 correctly = $18 / 30 = 0.60$

Number of students who answered Item 30 correctly = 24

Proportion of students who answered Item 30 correctly = $24 / 30 = 0.80$

Number of students who answered Item 31 correctly = 19

Proportion of students who answered Item 31 correctly = $19 / 30 = 0.63$

Number of students who answered Item 32 correctly = 19

Proportion of students who answered Item 32 correctly = $19 / 30 = 0.63$

Number of students who answered Item 33 correctly = 17

Proportion of students who answered Item 33 correctly = $17 / 30 = 0.57$

Number of students who answered Item 34 correctly = 17

Proportion of students who answered Item 34 correctly = $17 / 30 = 0.57$

Number of students who answered Item 35 correctly = 15

Proportion of students who answered Item 35 correctly = $15 / 30 = 0.50$

Number of students who answered Item 36 correctly = 13

Proportion of students who answered Item 36 correctly = $13 / 30 = 0.43$

Number of students who answered Item 37 correctly = 19

Proportion of students who answered Item 37 correctly = $19 / 30 = 0.63$

Number of students who answered Item 38 correctly = 15

Proportion of students who answered Item 38 correctly = $15 / 30 = 0.50$

Number of students who answered Item 39 correctly = 21

Proportion of students who answered Item 39 correctly = $21 / 30 = 0.70$

Number of students who answered Item 40 correctly = 20

Proportion of students who answered Item 40 correctly = $20 / 30 = 0.67$

Number of students who answered Item 41 correctly = 15

Proportion of students who answered Item 41 correctly = $15 / 30 = 0.50$

Number of students who answered Item 42 correctly = 17

Proportion of students who answered Item 42 correctly = $17 / 30 = 0.57$

Number of students who answered Item 43 correctly = 17

Proportion of students who answered Item 43 correctly = $17 / 30 = 0.57$

Number of students who answered Item 44 correctly = 17

Proportion of students who answered Item 44 correctly = $17 / 30 = 0.57$

Number of students who answered Item 45 correctly = 19

Proportion of students who answered Item 45 correctly = $19 / 30 = 0.63$

Number of students who answered Item 46 correctly = 17

Proportion of students who answered Item 46 correctly = $17 / 30 = 0.57$

Number of students who answered Item 47 correctly = 15

Proportion of students who answered Item 47 correctly = $15 / 30 = 0.50$

Number of students who answered Item 48 correctly = 16

Proportion of students who answered Item 48 correctly = $16 / 30 = 0.53$

Number of students who answered Item 49 correctly = 17

Proportion of students who answered Item 49 correctly = $17 / 30 = 0.57$

Number of students who answered Item 50 correctly = 16

Proportion of students who answered Item 50 correctly = $16 / 30 = 0.53$

Number of students who answered Item 51 correctly = 16

Proportion of students who answered Item 51 correctly = $16 / 30 = 0.53$

Number of students who answered Item 52 correctly = 13

Proportion of students who answered Item 52 correctly = $13 / 30 = 0.43$

Number of students who answered Item 53 correctly = 18

Proportion of students who answered Item 53 correctly = $18 / 30 = 0.60$

Number of students who answered Item 54 correctly = 18

Proportion of students who answered Item 54 correctly = $18 / 30 = 0.60$

Number of students who answered Item 55 correctly = 19

Proportion of students who answered Item 55 correctly = $19 / 30 = 0.63$

Number of students who answered Item 56 correctly = 17

Proportion of students who answered Item 56 correctly = $17 / 30 = 0.57$

Number of students who answered Item 57 correctly = 18

Proportion of students who answered Item 57 correctly = $18 / 30 = 0.60$

Number of students who answered Item 58 correctly = 17

Proportion of students who answered Item 58 correctly = $17 / 30 = 0.57$

Number of students who answered Item 59 correctly = 14

Proportion of students who answered Item 59 correctly = $14 / 30 = 0.47$

Number of students who answered Item 60 correctly = 16

Proportion of students who answered Item 60 correctly = $16 / 30 = 0.53$

The KR-20 formula is as follows:

$$\text{KR-20} = \left(\frac{K}{K-1} \right) \times \left(1 - \frac{\sum(p_i q_i)}{S_x^2} \right)$$

Given the proportion correct for each item p_i , we will compute the sum of $p_i(1-p_i)$.

$$\sum p_i(1-p_i) = (0.87*0.13) + (0.87*0.13) + (0.67*0.33) + \dots + (0.53*0.47)$$

$$= 0.1131 + 0.1131 + 0.2211 + \dots + 0.2491$$

$$\sum p_i(1-p_i) = 15.62$$

Next, we use the given total variance (76.60) to calculate KR-20:

$$\mathbf{KR - 20 = (60/59) * (1 - 15.62/76.60) = 0.81}$$

To assess the reliability of the test, KR-20 was calculated based on the provided data. The total variance across all items was found to be 76.60, and the sum of $pi(1-pi)$ was calculated to be 15.62. Utilizing the formula for KR-20, which incorporates the number of items in the test (60), the coefficient was computed to be approximately 0.81. This indicates the internal consistency reliability for the English vocabulary skill test is acceptable.





APPENDIX H
ENGLISH VOCABULARY SKILL TEST
(PRE-TEST & POST-TEST)

English Vocabulary skill Test

(PRE-TEST)

Subject: English Vocabulary **Grade:** Eight **Total Score:** 60 Points

Time: 60 Minutes **Student No.:** _____

Section One: English-Chinese Translation (30 points)

1. Translate the following English words into Chinese.

- 1) strong : _____ 2) stomach : _____ 3) headache : _____
 4) nurse : _____ 5) knife : _____ 6) volunteer : _____
 7) neighbor : _____ 8) matter : _____ 9) waste : _____
 10) provide : _____ 11) letter : _____ 12) shirt : _____
 13) floor : _____ 14) clever : _____ 15) imagine : _____

2. Translate the following Chinese words into English.

- 1) 训练n. : _____ 2) 借用v. : _____ 3) 打, 击v. : _____
 4) 血n. : _____ 5) 发烧n. : _____ 6) 感觉n. : _____
 7) 受伤v. : _____ 8) 标志n. : _____ 9) 理解v. : _____
 10) 扔v. : _____ 11) 建立 : _____ 12) 下车 : _____
 13) 修理 : _____ 14) 用尽 : _____ 15) 依靠 : _____

Section two: Fill in the Blanks (10 points)

1. Fill in the blanks with the appropriate forms of the given words.

- 1) We are all proud of our country's _____ (develop).
 2) Does he have a _____ (tooth)? --Yes , and he should see a dentist.
 3) We are old enough to look after _____ (our).
 4) Aron tells of the importance of making good _____ (decide).
 5) I am _____ (excit) about passing the final exams.

2. Fill in the blanks according to the meaning of the sentence and Chinese prompts.

- 1) Can you tell me the _____ (重要性) of eating healthy food?
 2) The old man is afraid of _____ (死亡) .

- 3) Some of the _____ (邻居) can't stand the noise from the party.
- 4) Jim _____ (与.....相像) his father. They are both quiet.
- 5) She _____ (躺) down in bed for a while, then she felt better.

Section three: Determine if the sentence's underlined word is used correctly. If it is used correctly, mark “√”; if it is misused, mark “×”. (10 points)

1. I had to make a decide about which college to attend. _____
2. Please take the rubbish outside and put it in the bin. _____
3. I need a brake from work to clear my head. _____
4. The kind old lady helped the lost child find his way home. _____
5. She bought several books from the bookstore. _____
6. Since it was raining, they decided to stay indoors. _____
7. It would be unfair not to let you have a choice. _____
8. She didn't want to rest her friends with her problems. _____
9. Andrea never gets up, which makes him a successful singer. _____
10. We should be careful when we get of the bus. _____

Section four: Choose the correct word according to the article. (10 points)

If you have the flu (流感), it's very important to stay home from school. Because it is a (n) 1 that could make some people ill. We should 2 it spreading (蔓延) around. The flu is a fever 3 one or more of these: cough, sore throat or headaches. If you have the flu, home is the 4 place to stay.

If you stay at home, you won't make other people ill. And if you have the flu, 5 at home is what you need to get better.

Take these steps (步骤) if you feel 6 :

Tell your parents. They will call the 7 to talk about whether (是否) you have the flu or some other illness.

Stay home from school and other 8 places. Also, try not to make other people in your family ill. Do that by washing your hands 9 .

Get rest, drink more water and you'll feel better fast. Be sure to tell your parents how you're feeling 10 they can take good care of you.

Go back to school only when you're feeling better.

- () 1. A.illness B.happiness C. hope D. way
- () 2. A.let B.stop C. keep D. have
- () 3. A.for B.on C. about D. with
- () 4. A.good B.better C.well D. best
- () 5. A.eating B.playing C. studying D. resting
- () 6. A.hungry B.angry C. ill D. bored
- () 7. A.teacher B.worker C. doctor D.singer
- () 8. A.nice B. important C. different D.crowded
- () 9. A.hardly B.often C. seldom D. never
- () 10. A.so B.or C. although D. but



English Vocabulary skill Test
(PRE-TEST)

Subject: English Vocabulary **Grade:** Eight **Answers**

Section One: English-Chinese Translation (30 points)

3. Translate the following English words into Chinese.

- 1) strong: 强壮的 2) stomach: 胃 3) headache: 头痛 4) nurse: 护士
5) knife: 刀 6) volunteer: 志愿者 7) neighbor: 邻居 8) matter: 事情 9)
waste: 浪费 10) provide: 提供 11) letter: 信 12) shirt: 衬衫 13) floor: 地
板 14) clever: 聪明的 15) imagine: 想象

4. Translate the following Chinese words into English.

- 1) 训练 (n.): training 2) 借用 (v.): borrow 3) 打, 击 (v.): hit 4) 血 (n.):
blood 5) 发烧 (n.): fever 6) 感觉 (n.): feeling 7) 受伤 (v.): injure/hurt 8)
标志 (n.): sign 9) 理解 (v.): understand 10) 扔 (v.): throw 11) 建立: set up
12) 下车: get off 13) 修理: fix up 14) 用尽: use up/ run out 15) 依靠: rely
on/depend on

Section two: Fill in the blanks with the given words. (10 points)

1. 1) development, 2) toothache, 3) ourselves, 4) decisions, 5) excited,
2. 1) importance, 2) death, 3) neighbors, 4) looks like, 5) lay,

Section three: Determine if the sentence's underlined word is used correctly. If it is used correctly, mark "√"; if it is misused, mark "×". (10 points)

1. × (decision), 2. √, 3. × (break), 4. √, 5. √, 6. √, 7. √, 8. ×
(bother/trouble), 9. × ("gives up" or "gets tired"), 10. × (off),

Section four : Choose the correct word according to the article. (10 points)

1. A. illness, 2. B. stop, 3. D. with, 4. D. best, 5. D. resting,
6. C. ill, 7. C. doctor, 8. D. crowded, 9. B. often, 10. A. so

English Vocabulary skill Test
(POST-TEST)

Subject: English Vocabulary **Grade:** Eight **Total Score:** 60 Points

Time: 60 Minutes **Student No.:** _____

Section One: English-Chinese Translation (30 points)

5. Translate the following English words into Chinese.

- 1) snack : _____ 2) passenger : _____ 3) owner : _____
 4) headache : _____ 5) knife : _____ 6) finger : _____
 7) difficulty : _____ 8) trouble : _____ 9) situation : _____
 10) midnight : _____ 11) foot : _____ 12) nosebleed : _____
 13) provide : _____ 14) waste : _____ 15) hate : _____

6. Translate the following Chinese words into English.

- 1) 发烧n. : _____ 2) 膝盖n. : _____ 3) 受伤v. : _____
 4) 兴趣n. : _____ 5) 有病的adj. : _____ 6) 仁慈n. : _____
 7) 聪明的adj. : _____ 8) 决定n. : _____ 9) 借用v. : _____
 10) 扔v. : _____ 11) 修理: _____ 12) 休息 : _____
 13) 依靠 : _____ 14) 建立 : _____ 15) 用尽 : _____

Section two: Fill in the Blanks (10 points)

3. Fill in the blanks with the appropriate forms of the given words.

- 1) She lived alone after her daughter's _____ (die).
 2) The _____ (develop) of Shanghai is getting on well.
 3) She _____ (lie) down in bed for a while, then she felt better.
 4) She didn't give up after the accident and keeps _____ (climb) mountains.
 5) Sandy wants to make _____ (decide) for herself.

4. Fill in the blanks according to the meaning of the sentence and Chinese prompts.

- 1) This is an _____ (不公平的) result.
 2) I think we should learn to _____ (控制) our feelings.
 3) His job is to _____ (打扫) the streets every morning.

- 4) I have a bad _____ (咳嗽) and need to see a doctor.
- 5) Many kind people _____ (捐贈) some money and foods to the homeless.

Section three: Determine if the sentence's underlined word is used correctly. If it is used correctly, mark “√”; if it is misused, mark “×”. (10 points)

11. I will call up my friend to discuss our weekend plans. _____
12. Developing a new skill takes time and effort. _____
13. She stayed home to carry for her sick mother. _____
14. The child's face lit up with joy when she saw the puppies. _____
15. She needed help to care the heavy boxes up the stairs. _____
16. After the party, the living room was a complete message. _____
17. It was raining, but they decided to go hiking anyway. _____
18. She watched the water drop slowly . _____
19. She couldn't attend the meeting because she was happy. _____
20. She noticed a sign pointing towards the museum. _____

Section four: Choose the correct word according to the article. (10 points)

My mother is a doctor. She is unable to get back home 1 every day. And she has to work on weekends sometimes. So it's hard for her to do all the 2 after work. As a member of the family, I think it's my duty (义务) to 3 some housework. 4 Mom always says she doesn't need any help, there are always things I can do. 5, I can help do the dishes and set the table. I'm sure Mom loves me 6 to help her.

What's more, I'm trying to be 7. I wash my own clothes, tidy up my bedroom and take care 8 my things. I'm old enough to do these things. And I can't 9 on my parents forever.

Always show your 10 to your mom for everything she does. I believe she will feel sweet. Try it now.

- () 1. A.all the time B. at the time C. in time D. on time
- () 2. A.schoolwork B. chores C. training D. exercises
- () 3. A.share B. make C. clean D. provide
- () 4. A.Because B. If C. Though D. But
- () 5. A.However B.To my surprise C. First D. For example
- () 6. A.volunteering B. asking C. planning D. giving
- () 7. A.independent B. happy C. same D. important
- () 8. A.for B. to C. of D. after
- () 9. A.lie B. go C. come D. depend
- () 10. A.notice B. thanks C. fairness D. Results



English Vocabulary skill Test
(POST-TEST)

Subject: English Vocabulary **Grade:** Eight **Answers**

Section One: English-Chinese Translation (30 points)

7. Translate the following English words into Chinese.

- 1) snack: 小吃 2) passenger: 乘客 3) owner: 主人 4) headache: 头痛
5) knife: 刀 6) finger: 手指 7) difficulty: 困难 8) trouble: 麻烦
9) situation: 情况 10) midnight: 午夜 11) foot: 脚 12) snack: 小吃
13) provide: 提供 14) waste: 浪费 15) hate: 讨厌

8. Translate the following Chinese words into English.

- 1) 发烧 n.: fever 2) 膝盖 n.: knee 3) 受伤 v.: injure/hurt
4) 兴趣 n.: interest 5) 有病的 adj.: sick/ill 6) 仁慈 n.: kindness
7) 聪明的 adj.: smart/clever 8) 决定 n.: decision 9) 借用 v.: borrow/lend
10) 扔 v.: throw 11) 修理: fix up 12) 休息: rest
13) 依靠: rely on / depend on 14) 建立: set up 15) 用尽: use up

Section two: Fill in the Blanks (10 points)

1. 1) death 2) development 3) lay 4) climbing 5) decisions
2. 1) unfair 2) control 3) clean 4) cough 5) give away

Section three: Determine if the sentence's underlined word is used correctly. If it is used correctly, mark "√"; if it is misused, mark "×". (10 points)

1. √, 2. √, 3. × (care), 4. √, 5. × (mess), 6. × (delete "anyway"), 7.
√, 8. × (drops), 9. × (sick), 10. √

Section four : Choose the correct word according to the article. (10 points)

1. A. all the time 2. B. chores 3. A. share 4. C. Though 5. D. For example 6. A.
volunteering 7. A. independent 8. C. of 9. D. depend 10. B. thanks



Item Objective Congruence for questionnaire

The result of the IOC index ranges from -1 to +1, as shown below:

+1: Indicates perfect alignment of the measure with the specified objectives, demonstrating a clear match with the goals.

0: Indicates ambiguity or uncertainty regarding whether the measures effectively correspond with the objectives.

-1: Indicates that the measure fails to achieve the outlined aims, or the item does not match the objective.

No.	Item Test No.	Expert 1	Expert 2	Expert 3	Average	Congruence
1.	It was enjoyable to learn English vocabulary through the Shanbay App via BLM.	+1	+1	+1	+1	Congruent
2.	The content and method of our English vocabulary course attracted my interest.	+1	+1	+1	+1	Congruent
3.	I had a strong personal motivation to improve my English vocabulary, both in and out of class.	+1	+1	+1	+1	Congruent
4.	Using Shanbay motivated me to learn and engage in English vocabulary study both inside and outside of class.	0	+1	+1	0.67	Congruent
5.	The English course motivated me to learn more about the English language.	+1	+1	+1	+1	Congruent
6.	I always found opportunities for interaction and participation in and out of class during the English vocabulary classes conducted through Shanbay App via BLM.	+1	+1	+1	+1	Congruent

No.	Item Test No.	Expert 1	Expert 2	Expert 3	Average	Congruence
7.	The English vocabulary practice activities conducted through Shanbay App via BLM kept me fully engaged.	+1	+1	+1	+1	Congruent
8.	The English vocabulary feedback received on Shanbay helped me improve in a timely manner and encouraged me to do better.	+1	+1	+1	+1	Congruent
9.	The vocabulary practice materials and methods provided by the teacher through Shanbay App via BLM were relevant and helpful to my English learning goals.	+1	+1	+1	+1	Congruent
10.	The activities in and out our English classes sparked my interest and kept me actively involved in the entire learning process.	+1	+1	+1	+1	Congruent
11.	Using Shanbay App through BLM helped me increase my English vocabulary.	+1	+1	+1	+1	Congruent
12.	Using Shanbay App via BLM offered an excellent foundation for my English vocabulary skill.	+1	+1	+1	+1	Congruent
13.	Using Shanbay App via BLM offered me possibilities for ongoing learning both in and out of the classroom.	+1	+1	+1	+1	Congruent
14.	Using Shanbay App through BLM enhanced my collaboration skill.	+1	+1	0	0.67	Congruent
15.	Using Shanbay App via BLM helped me build up my English self-learning skill.	+1	+1	+1	+1	Congruent



APPENDIX J

THE RELIABILITY TEST RESULTS OF QUESTIONNAIRE

Cronbach's alpha

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
0.955	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
IM1	52.870	67.499	0.618	0.954
IM2	52.900	66.576	0.740	0.952
IM3	53.170	66.075	0.739	0.952
IM4	53.070	65.720	0.721	0.952
IM5	53.100	66.576	0.619	0.954
EN1	53.170	64.695	0.879	0.949
EN2	53.200	65.062	0.819	0.951
EN3	53.230	64.461	0.858	0.950
EN4	53.200	65.959	0.730	0.952
EN5	53.300	63.045	0.896	0.949
EC1	53.270	65.168	0.717	0.952
EC2	53.200	64.441	0.881	0.949
EC3	53.300	64.286	0.784	0.951
EC4	53.530	61.844	0.668	0.956
EC5	53.500	62.259	0.753	0.952

Note: IM = Interest and Motivation; EN = Engagement; EC = Efficacy of Using BLM Approach via Shanbay App



Questionnaire

Dear students,

This questionnaire is part of the thesis for Rangsit University's Master of Education in Curriculum and Instruction degree. The research title is *"The Use of Blended Learning Model (BLM) Approach Through Shanbay Application to Improve English Vocabulary Skill Among Grade 8 Chinese Students."* The researcher is going to use the analytical data to evaluate students' satisfaction with collecting English vocabulary skill using Blended Learning Model (BLM) approach and Shanbay application. This can provide fresh perspectives for teaching and studying English vocabulary for future students.

Best Regards,

Ms. Wenzhi Pu

Master Candidate, Education in Curriculum and Instruction, Suryadeep Teachers' College, Rangsit University.

Part 1 General information from the participants

1. Kindly identify your gender.

- A. Male
- B. Female

2. Kindly state your age.

- A. 13 years old (or younger)
- B. 14 years old
- C. 15 years old (or older)

3. Have you ever attended an app-based course to learn English vocabulary?

- A. Yes
- B. No

Part 2 Students' Satisfaction

Please indicate your level of agreement with each statement on a scale from 1 to 5, where 1 represents 'Strongly Disagree' and 5 represents 'Strongly Agree,' as indicated in the table below:

Scale: 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Strongly Disagree						
<i>Direction: To complete this questionnaire, insert (√) in the response that best reflects your opinion for each indication.</i>						
No.	Items	5	4	3	2	1
PART A: INTEREST & MOTIVATION						
1.	It was enjoyable to learn English vocabulary through the Shanbay App via BLM.					
2.	The content and method of our English vocabulary course attracted my interest.					
3.	I had a strong personal motivation to improve my English vocabulary, both in and out of class.					
4.	Using Shanbay motivated me to learn and engage in English vocabulary study both inside and outside of class.					
5.	The English course motivated me to learn more about the English language.					
PART B: ENGAGEMENT						
1.	I always found opportunities for interaction and participation in and out of class during the English vocabulary classes conducted through Shanbay App via BLM.					
2.	The English vocabulary practice activities conducted through Shanbay App via BLM kept me fully engaged.					
3.	The English vocabulary feedback received on Shanbay helped me improve in a timely manner and encouraged me to do better.					
4.	The vocabulary practice materials and methods provided by the teacher through Shanbay App via BLM were relevant and helpful to my English learning goals.					
5.	The activities in and out our English classes sparked my interest and kept me actively involved in the entire learning process.					

Scale: 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Strongly Disagree						
<i>Direction: To complete this questionnaire, insert (√) in the response that best reflects your opinion for each indication.</i>						
No.	Items	5	4	3	2	1
PART C: EFFICACY OF USING BLM APPROACH VIA SHANBAY APP						
1.	Using Shanbay App through BLM helped me increase my English vocabulary.					
2.	Using Shanbay App via BLM offered an excellent foundation for my English vocabulary skill.					
3.	Using Shanbay App via BLM offered me possibilities for ongoing learning both in and out of the classroom.					
4.	Using Shanbay App through BLM enhanced my collaboration skill.					
5.	Using Shanbay App via BLM helped me build up my English self-learning skill.					

BIOGRAPHY

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