**THE USE OF MOBILE-ASSISTED LANGUAGE LEARNING
THROUGH LIULISHUO FOR ENGLISH SPEAKING
SKILL OF GRADE 7 CHINESE STUDENTS**

BY

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Abstract

        This research employed a quantitative approach to examine the impact of Mobile-Assisted Language Learning (MALL) through the "Liulishuo" application on the English speaking skill and satisfaction levels of grade 7 Chinese students. The study involved a sample of 30 grade 7 students in Guangxi province, China. Data collection covered four weeks, incorporating lesson plans, pretests, posttests, and questionnaire distribution. Descriptive statistics analysis and paired-sample t-test were utilized to analyze the gathered data. The pretest and posttest outcomes indicated that the participants in the sample demonstrated improvement in their English speaking skill. The posttest mean score was 10.23 (SD=3.21), while the pretest mean score stood at 6.73 (SD=2.98), leading to a statistically significant difference, the mean improvement of 3.50 points. All of the questionnaire items received high to the highest ratings, which indicated that the majority of students expressed noteworthy satisfaction with MALL through the "Liulishuo" application in learning English speaking skill. The study has demonstrated that utilizing MALL through the "Liulishuo" application offered an alternative and effective approach to improving English speaking skill. EFL teachers in China may consider incorporating this method into their classroom practices based on the study's findings.

(Total 150 pages)

Keywords: Mobile Assisted Language Learning, MALL, Liulishuo Application, Speaking Skill, Students' Learning Satisfaction

Student's Signature …................................ Thesis Advisor's Signature ....

TABLE OF CONTENTS

TABLE OF CONTENTS (CONT.)

TABLE OF CONTENTS (CONT.)

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

Abbreviation	Meaning
ASR	Automated Speech Recognition
AU	Actual Use
BI	Behavioral Intention
EFL	English as Foreign Language
ESL	English as Second Language
GoI	Government of India
HLIs	Higher Learning Institutions
IOC	Item-objective Congruence
KR-20	Kuder-Richardson Formula
MALL	Mobile Assisted Language Learning
PEU	Perceived Ease of Use
PU	Perceived Usefulness
RHR	Recurrent Hierarchical Recursion
SLT	Situational Language Teaching
TEA	Talk English Application
WALL	WeChat-assisted lexical-learning program

CHAPTER 1

INTRODUCTION

This chapter first discusses the background and rationale behind the study, followed by elucidating the research objectives, posing research questions, and establishing research hypotheses. Furthermore, it addresses the scope, conceptual framework, terminology definitions, and expected outcomes of the study.

1.1 Background and Rationale of The Study

English functions as the universally acknowledged lingua franca. It distinguishes itself as the most widely recognized unfamiliar dialect (Niyozova, 2020; Putra, 2020). Therefore, mastering this language is pivotal for nurturing international exchanges. Competence in English enables adept communication not exclusively with Anglophone nations but also with diverse countries worldwide. The British Council foretold that by 2020, a substantial segment of the global populace would possess English language proficiency. Attaining proficiency in English is pivotal as it facilitates seamless communication among fellow global citizens (Nishanthi, 2018; Putra, 2020). In the 21st century, China's global standing has consistently risen. This development is closely intertwined with the extensive exchanges between our country and others across various domains. Implicitly, this has placed heightened demands on the English proficiency of our citizens. To expeditiously and effectively disseminate China's exceptional academic achievements and rich cultural heritage on the expansive international stage, the mastery and adept utilization of the English language have grown increasingly imperative (Ma, Zhao, Li, & Wang, 2016).

As noted by Baron (2020), speaking stands as a complex and demanding skill that demands cultivation and refinement as a vital means of communication. This crucial aptitude enables global interaction and personal growth across diverse spheres of society. According to Davies (2020), one of the four language abilities (Listening, Speaking, Reading and Writing) that is most crucial is speaking since people who acquire a language are said to as speakers of that language. The primary goal of teaching English is to provide students with the skills necessary to communicate effectively and appropriately in English. The latest release of the "Compulsory Education English Curriculum Standards" (2022 version) by the Ministry of Education necessitates educators to employ modern pedagogical technologies to enrich teaching content. This involves devising innovative and engaging instructional approaches that provide students with opportunities to observe and imitate authentic contexts, thereby fostering genuine language experiences. The goal is to enhance the communicative and authentic aspects of English learning (Ministry of Education of the People's Republic of China, 2022). Basic English education in China increasingly emphasises students' speaking skill. Provinces such as Guangdong, Shandong, Jiangsu and Anhui have included speaking tests in their examinations, reflecting a national trend. To improve speaking skill, educators are exploring new teaching methods and models in response to the curriculum reform. In Guangdong province, English speaking exam scores account for 10% of the overall English exam score in the college entrance examination. In Shandong province, both the middle school entrance examination and the college entrance examination allocate 20% of the total English score for listening and speaking. Starting from 2009, the Jiangsu Provincial Education Department includes 20% of the speaking exam score in the total score for high school entrance exams. According to the 2019 exam outlines for middle school and college entrance exams in Anhui province, the total score for the English speaking exam is 5 points (Gao, 2022). Compared to other provinces, Guangxi's emphasis on speaking skill was delayed, yet since 2010, English speaking has been considered a crucial factor for secondary students' academic advancement (Sina Education, 2018).

Although spoken English has received more and more attention in Chinese education, Anggraini (2022) stated that educators in teaching English speaking encounter challenges in the implementation of pedagogical approaches, grappling with issues pertaining to suboptimal instructional outcomes and student fatigue during the learning process. The continuous advancement of global integration has led to the pervasive presence of English communication in various aspects of daily life. Despite the early commencement of English education in China, the rigid examination-oriented system remains an obstacle, rendering speaking proficiency a vulnerability. Furthermore, students' anxiety during communication and the divergence between Eastern and Western language customs impede the improvement of their speaking skill (Qi, Ju, & Tang, 2021). Wang (2023) noted that the lack of English language environments in China restrains students' speaking opportunities. Traditional teacher-centric models and varying teacher English proficiency hinder effective speaking instruction. Students' fear of mistakes and scarce speaking resources contribute to their reluctance to speak English. These issues create a gap in achieving communication-focused language goals. Hu (2022) also highlighted several factors hindering the improvement and development of secondary students' English speaking skill. Firstly, many teachers lack systematic assessment criteria and timely guidance for English speaking learning in the compulsory education phase. Secondly, most schools are unable to provide one-on-one speaking training, leading to unresolved issues in students' speaking practice. Thirdly, the conventional monotonous English teaching hampers the cultivation of students' interest in learning the language. Based on this, English teachers should endeavour to explore new teaching methods and modes so as to help students really improve their English speaking (Gao, 2022).

Mobile devices significantly impact education, particularly English language learning. Their portability and touch-screen interfaces enable interactive learning, enhancing student-teacher engagement. These technologies offer potential in improving English instruction, addressing traditional passive learning approaches (Chang & Hsu, 2011; Clarke & Svanaes, 2015; Persson & Nouri, 2018). The conventional teaching approach prioritizes teacher-cantered instruction, overlooking students' active engagement. However, an effective teaching model would closely attend to students' cognitive and emotional development, as well as their

individualized learning needs, implying that English speaking instruction should centre around student participation. An increasing number of educators are venturing into the feasibility of integrating mobile applications to assist in English speaking instruction (Sung, 2016; Wang, 2023). As technology advances, language learning methods also evolve. "Mobile Assisted Language Learning" (MALL) is a prevalent approach using smartphones and mobile devices to learn languages. MALL is advantageous due to widespread mobile phone ownership (90% in developed countries) and portability, allowing anytime, anywhere study. Engaging apps can motivate continued learning beyond classes (Mobile Assisted Language Learning [MALL], n.d.). The rise of mobile-assisted language learning in education is fuelled by technology's impact on societal and economic advancement. Shifting from computer-based learning, the approach leverages mobile devices and internet connectivity for flexible education inside and outside classrooms. Smartphones, tablets, and laptops are harnessed by educators and students to enhance teaching, learning materials, and skills. This transformation facilitates learning anytime, anywhere, elevating teaching quality and student capabilities (Dobbins & Denton, 2017; Kusmaryani, 2019; Rozitis, 2017). Using mobile devices has effectively bridged the gap between classroom and home, as well as between computers and mobile devices. This approach offers learners a personalized and convenient environment, enabling them to access learning materials through wireless networks and communicate with learning platforms using SMS, mobile e-mail, and dedicated applications (Miangah & Nezarat, 2012; Zuhri, 2016).

The support requirements for students learning the English language do not initiate exclusively at the high school level; they actually originate at an earlier stage, during junior high. This juncture assumes a crucial role in moulding students' academic path. In this context, educators at this level are actively striving to formulate curricula, implement strategic interventions, and consolidate foundational courses with the twofold objective of fulfilling grade-level content mandates while propelling the improvement of English language mastery (Fisher & Frey, 2017). Januarty, Asib, and Suparno (2018) explored challenges encountered by junior high school students in learning English speaking. Internally, issues encompassed weakened motivation, challenges in word

selection, pronunciation, sentence structure, word arrangement, passive participation, and self-affirmation. Externally, concerns arose from pedagogical strategies, teacher-centered practices, limited student-teacher interaction, and low participation. Especially in China, Yao, Zhang, and Li (2019) highlight significant hurdles in junior high students' speaking skill. They demonstrate weak proficiency, often hesitating and feeling apprehensive. Challenges include self-regulation struggles, limited engagement, and reduced enthusiasm. Additionally, English speaking instruction in classrooms exhibits deficiencies due to exam-oriented education, neglecting interest and competence development. This issue underscores existing teaching challenges, contributing to inadequate fluency.

Effective English language skill requires an authentic context and interaction partners. In non-Anglosphere countries, however, this context is lacking, leading to English as a Foreign Language (EFL) students practising mainly in classrooms. Limited aural and speaking practice coupled with shyness and anxiety often hinder speaking expression proficiency in non-Anglosphere regions (Sun et al., 2017). MALL-based research has been looking for a mobile application that can solve these problems (Aliakbari & Mardani, 2022; Persson & Nouri, 2018). "Liulishuo" is an innovative English language learning application developed by Shanghai Liulishuo Information Technology Co., Ltd. It utilizes advanced voice assessment technology and creative pedagogical approaches to promote proactive English speaking, addressing challenges like "mute English" and "Chinese-style English". With a user base exceeding 120 million and over 2.5 million paying learners by March 2019, the platform leverages AI-powered capabilities such as voice and image recognition. The app provides tailored learning experiences, catering primarily to the youth demographic through captivating content across various contexts, while adhering to the principles of Ebbinghaus's forgetting curve. This strategic framework has positioned it as a prominent contender in the competitive landscape of online educational offerings (Chen & Liang, 2021). Wang (2023) stated that "Liulishuo" is a language learning app that seeks to enhance spoken English proficiency. It offers realistic dialogue scenarios, voice acting exercises, and vocabulary training. Users can immerse themselves in various situations, simulate character voices, and experience authentic communication. The app also provides daily listening exercises to

familiarize users with English speech patterns. Additionally, it allows users to create word lists for words they find challenging and offers vocabulary training with clear pronunciations. Despite these benefits, there are potential concerns regarding the balance between learning and gaming, requiring teacher and parental supervision. Overall, "Liulishuo" offers interactive and engaging learning resources, transforming traditional language learning into a more enjoyable experience. According to Qi et al. (2021), "Liulishuo" promotes constructivist learning, fostering student autonomy and spoken English practice. Features like shadowing enhance pronunciation, while retelling improves memory and listening skill. Regular practice and confidence-building activities positively impact students' willingness to speak and overcome speaking anxiety. Liulishuo as an AI-powered language learning app, has excellent performance in MALL through its Automated Speech Recognition (ASR) function, enabling autonomous learning and independent progress sharing. It offers diverse content, authentic conversations, and personalized guidance to enhance students' speaking fluency and confidence. These outstanding features distinguish Liulishuo from other English learning apps, especially in the realm of English oral learning, making it a formidable contender in this field (Bottle, 2022; Long, 2023; Xian, 2021; Zhang, 2019).

Prior research has already explored the integration of mobile devices into students' English speaking instruction. Darmawati (2018) conducted classroom action research in three cycles to examine MALL's impact on students' speaking performance. Findings revealed MALL's positive influence on pronunciation, grammar, vocabulary, fluency, and comprehension, with enhanced skills linked to increased speaking practice. The study by Cerezo, Calderón, and Romero (2019) revealed that the utilization of mobile devices can enhance both the enthusiasm and performance of Spanish children in oral language learning. Rajendran and Yunus (2021) conducted a comprehensive review of MALL studies from 2016 to 2020, highlighting its constructivist benefits and ease of use for improving speaking skill. Zhou (2021) comprehensively analyzed MALL research (from 2017-2021) on speaking skill acquisition. Results suggest mobile tech can improve speaking, but many studies are small-scale and quasi-experimental in higher education. Burston (2015) highlighted the growing popularity of Mobile Assisted Language Learning

(MALL) due to advancements in smartphones and tablets. This trend parallels the history of computer-assisted language learning. However, Nur, Butarbutar, Ardiningtyas, and Alimuddin (2022) asserted that substantiating the enthusiasm for any technology requires research and pedagogical evidence of its effectiveness. There have also been inquiries into the efficacy of MALL in improving students' English oral proficiency. Tarighat and Khodabakhsh (2016) employed the MALL approach to investigate the attitudes of advanced English learners towards using mobile devices for oral English learning. Findings indicated varied viewpoints among learners, with some expressing concerns about fairness and genuine communication in the process.

Currently, though the majority of scholars have affirmed the effectiveness of employing mobile devices to assist in improving students' English oral proficiency, there are still some voices of scepticism. It is evident that further exploration is needed in the realm of Mobile-Assisted Language Learning (MALL) to enhance students' English speaking skill. Moreover, research outcomes in this field in China have mostly relied on content analysis-based reviews of past literature, lacking empirical evidence. Additionally, in accordance with Zhou (2021), the current focus of research in this domain has primarily cantered on higher education, neglecting the crucial phase of junior high school, which serves as a pivotal stage for nurturing students' language expression and English oral proficiency. Particularly, a research gap exists in the context of China regarding the utilization of mobile devices to facilitate English oral skills among junior high school students. Therefore, this study intends to evaluate the improvement in speaking skill among Chinese junior high school students before and after employing Mobile-Assisted Language Learning (MALL) through the "Liulishuo" application.

This research endeavors to bridge the gap between conventional language learning approaches and the modern communication landscape. It explores the viability of utilizing an English speaking application to enhance speaking skill among junior high school students. Through an examination of the efficacy of this technological intervention, the objective is not only to enhance speaking proficiency but also to encourage a shift in educational methods that prioritize genuine interaction and authentic language use. Drawing on pedagogical theories like [mention relevant

theories], this study aims to illuminate the transformative potential of technology-integrated language learning. By assessing the effects of the oral app on students' speaking abilities, self-assurance, and involvement, the intention is to offer valuable insights to language education and provide educators with innovative tools to empower their students effectively.

1.2 Research Objectives

1.2.1   To compare grade 7 Chinese students' English speaking skill before and after the use of MALL through "Liulishuo" application.

1.2.2   To examine Grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application.

1.3 Research Questions

1.3.1   Did the use of MALL through "Liulishuo" application lead to a significant improvement in the English speaking skill of grade 7 Chinese students?

1.3.2   What was the extent of grade 7 Chinese students' satisfaction with the use of MALL through "Liulishuo" application in improving their speaking skill?

1.4 Research Hypotheses

1.4.1   The use of MALL through "Liulishuo" application led to a significant improvement in students' speaking skill.

1.4.2   Grade 7 Chinese students' satisfaction with the use of MALL through "Liulishuo" application in improving their speaking skill was at a high level.

1.5 Scope of the Study

This research was conducted at the Guangxi Sports School in the Guangxi Zhuang Autonomous Region of China, where a cohort of 120 students in Grade 7 was enrolled. Employing a clustered random sampling technique, this study included a single class with 30 students from the school as the research sample. Researcher employed the MALL via Liulishuo application to assess their English speaking skill, utilizing it as an intervention measure for improving speaking skill, while also investigating student satisfaction with the use of the Liulishuo application for improving their English speaking skill. The study focused on the implementation of MALL via Liulishuo as the independent variable, while the dependent variables included the English speaking skill of the students and their satisfaction with the use of the Liulishuo application for improving their English speaking skill. By focusing on these variables, the study aimed to evaluate the effectiveness of using MALL through the Liulishuo application as a tool for improving English speaking skill among Grade 7 students at a Guangxi School, while also gauging their satisfaction with this approach.

1.5.1 Location of the study

The researcher conducted this study at a middle school located in Nanning, Guangxi Zhuang Autonomous Region, which aligned with the city's average educational standards. The school, known as a national high-level sports reserve talent base, a teaching, training, and accommodation "three centralized" autonomous region-level sports school, was comprised of approximately 90 teachers and 1150 students, based on 2023 statistical data. Among them, there were 120 students in Grade 7.
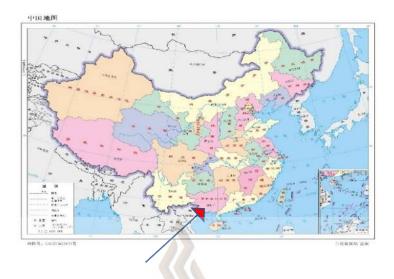
Figure 1.1 Location of the study

Source: Baidubaike, 1938

1.5.2 Population

Population: The target population of this study included 4 classes in the Guangxi Sports School in the Guangxi Zhuang Autonomous Region, with an average of 30 students per class. Participants' ages ranged from 10 to 14 years old, with diverse genders and varying English proficiency levels.

1.5.3 Sample

Sample: The researcher employed a clustered random sampling method to select one class (30 students) from 4 classes of grade 7 for the research.

1.5.4 Time Frame

Table 1.1 Timeline of the Study

Activity	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Literature Review							■	■	■	■		
Research Proposal											■	
Data Collection	■											■
Data Analysis		■	■									
Report Writing			■	■								
Final Defense					■							

1.5.5 Content of Lesson plans

The researcher developed four teaching plans by drawing from the material outlined in the English speaking standards for grade 7 students in China (Ministry of Education of the People's Republic of China, 2022). Collaborating with the English teachers at the Nanning foreign language school, the researcher engaged in discussions regarding content selection, with a specific focus on how to utilize the MALL (Mobile-Assisted Language Learning) approach in the lessons via Liulishuo application. The lesson plan was shown in the table 1.2.

Table 1.2 Lesson Plan

Lesson plan	Topics/Sessions	Teacher-student Activities
Test	Pretest	
Lesson Plan 1	Session 1: Introduction to Liulishuo and Initial assessment with Liulishuo	Pre: Warm-up on mobile apps. While: Intro to Liulishuo. While: Initial assessment. Post: Feedback, student grouping.
	Session 2: Introduction to practice pattern and practicing English speaking skill on Liulishuo app	Pre: Warm-up on previous learning. While: Practice patterns on Liulishuo. While: Group work, feedback. Post: Group discussion, reflection.
Lesson Plan 2	Session 1: How to make small talk (Making new friends)	Pre: Warm-up on previous learning. While: Intro to Liulishuo. While: Practice vocabulary and sentences. Post: Feedback, student grouping. Closure: Recap main points, praise effort. Preview next topic for interest and continuity.
	Session 2: English speaking dubbing practice (Making new friends)	Pre: Warm-up on previous learning. While: English dubbing practice. While: Group work, feedback. Post: Discuss dubbing process, reflections. Closure: Summarize key points, emphasize practice. Acknowledge effort. Preview next topic.

Table 1.2 Lesson Plan (Cont.)

Lesson plan	Topics/Sessions	Teacher-student Activities
Lesson Plan 3	Session 1: How to make daily conversation (Talking about the weather)	Pre: Warm-up on previous learning. While: Pair conversations on weather scenarios. Post: Write a weather conversation. Closure: Summarize and preview the next session.
	Session 2: English speaking dubbing practice 2(Talking about the weather)	Pre: Recall previous session, watch a dubbing video. While: Pair dubbing, feedback. Post: Watch notable dubs, feedback. Closure: Summarize, praise, and preview next lesson.
Lesson Plan 4	Session 1: Dubbing competition	Warm-up and Introduction: Greet, check devices, explain dubbing competition, and review previous lessons. Clip Selection and Preparation: Choose dubbing clips, rehearse. Competition: Perform live, receive feedback, announce top groups. Closure: Congratulate, emphasize teamwork.

Table 1.2 Lesson Plan (Cont.)

Lesson plan	Topics/Sessions	Teacher-student Activities
	Session 2: Self-Created Dialogue Presentation	Warm-up and Introduction: Greet, check devices, introduce self-created dialogues, discuss topics. Designing Dialogues: Craft dialogues. Presentation: Perform dialogues, receive feedback. Closure: Highlight performances, encourage practice.
Test	Posttest	

1.6 Conceptual Framework

This research was involved with three variables: an independent variable and two dependent variables. The independent variable was the implementation of MALL via Liulishuo application, while the dependent variables focused on students' speaking skill and learning satisfaction with the MALL usage. The Figure 1.2 visually presents the study's conceptual framework:

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┌─────────────────────────┐          ┌─────────────────────────┐
│  Independent variable   │          │   Dependent variables   │
└─────────────────────────┘          └─────────────────────────┘
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                                      ┌─────────────────────────┐
                                      │ English speaking skill  │
                                      └─────────────────────────┘
┌─────────────────────────┐
│  The implementation of  │
│    MALL via Liulishuo   │          ┌─────────────────────────┐
└─────────────────────────┘          │   Students' learning    │
                                      │      satisfaction       │
                                      └─────────────────────────┘
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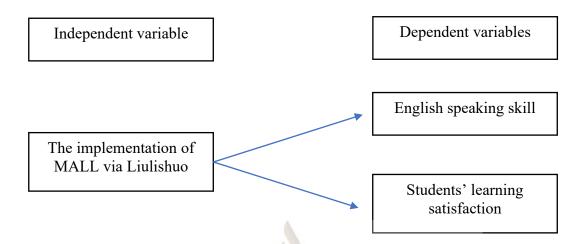
Figure 1.2 Conceptual Framework

1.7 Research Terminologies

Mobile Assisted Language Learning (MALL) is a prevalent approach that uses smartphones and mobile devices to learn languages. The researcher aimed to improve the speaking skill of grade 7 students in Guangxi through the application of MALL. In this context, the study employed the Liulishuo app, a language learning tool specifically designed to improve English speaking proficiency. Through realistic dialogue scenarios, voice acting exercises, and vocabulary training, the Liulishuo app provides students with immersive experiences, allowing them to simulate character voices and engage in authentic communication.

Liulishuo Application is a language learning app that seeks to improve spoken English proficiency. It offers realistic dialogue scenarios, voice acting exercises, and vocabulary training. Users can immerse themselves in various situations, simulate character voices, and experience authentic communication. The research seeks to harness the capabilities of MALL, as exemplified by the Liulishuo app, to effectively advance the English speaking skill of Grade 7 students in Guangxi.

English Speaking Skill refers to the ability to convey thoughts, intentions, ideas, and emotions to others using English language, ensuring clear communication and comprehension by listeners (Bagate, 1987). Focusing the definition of this study,

it can be concluded that English speaking skill is the capacity of Grade 7 students to speak English with proficient pronunciation, an ample vocabulary, correct grammar usage, fluency, and good comprehension. English Speaking Skill is assessed through achievement assessments and standards, and the Speaking English test will be used to test students' speaking vocabulary, grammar and expression in simulated real-life situations. Using the MALL through Liulishuo application for each topic can help students improve their English-speaking skill more effectively. Topics include: friends, weather, hobbies, etc. In this study, the students' English speaking skill was assessed as the focus of students' speaking skill through pre-test and post-text.

Students' Learning Satisfaction was characterized as the sentiment or disposition of students believing that their wants and requirements can be met within the context of learning activities or processes. In this study, the students' learning satisfaction is assessed by: Interest and Motivation, Engagement and Efficacy of mobile-assisted language learning through Liulishuo. Thus, students' learning satisfaction was measured through survey questionnaire.

Grade 7 Students are the students who in the seventh grade at a junior high school in Guangxi, China. For the purpose of this study, a single class was selected from a total of 4 classes in Grade 7 to serve as the sample.

1.8 Significance of the Study

It was hoped that the Liulishuo application would improve students' oral abilities, particularly their pronunciation, fluency, vocabulary use, and coherence. It was anticipated that increased language proficiency would promote active involvement both within and outside of the classroom. While the learned abilities were expected to be applied in real-world communication contexts, the interactive app aspects were believed to encourage enthusiasm for language study.

The researcher hoped to provide educational practitioners with cutting-edge ideas for using technology into pedagogy especially for English speaking teaching through this study. This project gave instructors and educators the adaptability needed to seamlessly meld electronic resources with tried-and-true instructional methods, improving the educational experience. This seamless merger recognized the changing nature of contemporary education and encouraged teachers to use technology as a powerful catalyst for educational change.

This study served as a foundation for educators and scholars, enabling them to conduct more robust and substantial investigations into the efficacy of MALL (via the Liulishuo application or other potential applications) in improving students English speaking skill. Given the current gap in knowledge regarding the use of MALL to promote English oral proficiency among junior high school students in China, this research filled this gap and provide a theoretical foundation for future researchers to undertake related studies. This aligned with the evolving educational landscape's demand for meticulous technological integration.

CHAPTER 2

LITERATURE REVIEW

In this chapter, a concise overview of key concepts and pertinent literature is provided to establish the theoretical foundation for the study. This includes the background of English speaking instruction in China, Chinese English speaking standard for grade 7 students, the theoretical background of English speaking skill, Mobile-Assisted Language Learning (MALL), Liulishuo application and students' learning satisfaction. Additionally, the chapter discusses related theories of the study, previous foreign and Chinese research.

2.1 Overview of English Speaking Instruction in China

A common language is crucial for successful communication and building worldwide ties in today's increasingly globalized society, which spans industries like business, technology, and the media. The widespread use of English as an official or second language in many nations contributes significantly to the development of these links and the improvement of young people's global competitiveness (Hughes, 2021; Liu, 2022; Rao, 2019). According to Liu (2022), English's importance grows as a lingua franca for trade and global integration. Over decades, it has become pivotal. Around 400 million, about a third of China's population, are English learners. English is mandatory from primary to higher education, even in bilingual kindergartens. In some mainstream schools and universities, both Chinese and English are mediums of instruction. It ranks as the most time-consuming subject beyond Mandarin. English education in Chinese primary and secondary schools has garnered considerable focus, with reforms to the English curriculum becoming a societal focal point. Consequently, the implementation of effective teaching methods to enhance students' learning proficiency stands as a shared concern among educators (Xiong, 2023).

The status of English as a global lingua franca has established it as a primary tool for intercultural communication, consequently accentuating the significance of spoken interaction and cross-cultural communication within English curricula (Gao, 2023). According to People's Republic of China Ministry of Education (2022), teachers must use cutting-edge pedagogical tools to enhance their lesson plans in accordance with the Ministry of Education's most recent edition of the "Compulsory Education English Curriculum Standards" (2022 version). This entails developing creative and interesting teaching strategies that provide pupils the chance to see and mimic real-world situations, generating authentic language experiences. The goal is to improve the communicative and genuine components of English learning. All parts of society have been focusing more and more on teaching ability to speak English in recent years, and this has caused local education authorities and teaching staff to gradually change their teaching philosophies and abandon the long-standing overemphasis on teaching reading and writing without considering the teaching of spoken language. This has been true across all regions of China. As China's basic English education places more emphasis on students' speaking skill, Chinese provinces are responding positively. Some provinces, such as Guangdong, Guangxi, and Anhui, have already included oral English tests in the evaluation system for promotion to higher education (Gao, 2022; Sina Education, 2018).

Chai (2022) stated that English speaking instruction holds a vital role in middle school English education, garnering significant attention from teachers. Middle school marks a pivotal transition between primary and high school, where effective oral English skill not only facilitate language acquisition but also contribute to students' subsequent comprehension and mastery of English knowledge. According to Hu (2022), the improvement and development of English speaking proficiency among grade 7 students encounter several obstacles. Firstly, within compulsory education, numerous teachers lack immediate guidance, well-defined assessment criteria, and monitoring for spoken English skill. Secondly, the absence of one-on-one spoken instruction in most schools hinders the timely resolution of students' practice-related challenges. Lastly, the conventional, uninspiring methods of teaching English fail to ignite pupils' enthusiasm for language acquisition. Zhang (2023) summarized the reasons behind issues in English

speaking instruction for middle school students. Firstly, many English tasks assigned in Chinese middle school classrooms lack consideration for students' current language proficiency, often being overly challenging. Secondly, the content presented in class lacks appeal and significance, resulting in dull assignments that lead to classroom silence. Thirdly, the teaching methods are outdated, with traditional oral instruction focusing solely on listening, memorization, and note-taking, lacking flexible approaches to stimulate students' learning interest on English speaking. Moreover, Liu (2021) also mentioned the two main reasons for the problems in teaching spoken English in secondary schools. Firstly, students' lack of confidence in oral expression hinders progress. Many students exhibit shyness and hesitancy, impeding their language development. Teachers must employ encouraging methods and curb disruptive behavior to create a supportive environment. Secondly, students' limited exposure to practical English usage results in shallow practice and a lack of deeper topics and themes. This absence of linguistic immersion hampers effective spoken English application. To address these issues, teachers should foster confidence, provide engaging content, and encourage a broader language context, ultimately improving the quality of middle school English oral instruction.

2.2 Chinese English Speaking Standards for Grade 7 Students

Educational standards or Learning standards include declarative, procedural, schematic, and strategic knowledge, defining curriculum content for students at specific educational grades (Browder, Spooner, & Wakeman, 2006). Standards play a pivotal role in education for three main reasons. They establish clear and measurable goals that guide educators and learners towards specific outcomes. In addition, standards guide instructional strategies and drive curriculum, assessment, and professional development. Finally, standards contribute to performance measurement and are the basis for assessing student success (3 Reasons Standards are Essential to Educational Success, 2017).

Gu (2012) summarized the English speaking standard for junior high school students from Compulsory education: English curriculum standards (2011 version), which included 6 parts. In junior high school, students should be capable of actively participating in classroom activities, using simple sentences to communicate effectively. They should also demonstrate the ability to engage in conversations with others on familiar topics using uncomplicated sentence structures. Furthermore, students are expected to take part in basic role plays and games, improving their interactive skill. They should be able to describe objects or ideas using clues from visual aids like pictures, PowerPoints, or words. Additionally, students should be confident in sharing information about their personal experiences and themselves. Lastly, they should be able to narrate short and straightforward stories, showcasing their developing oral communication proficiency.

With the changing landscape of education policies and the advancement of educational technology, coupled with the state of English oral communication learning among junior high school students around 2020, China has established more comprehensive standards for oral proficiency among middle school students. According to Compulsory education: English curriculum standards (2022 version), the English speaking standards for grade 7 students in China can be segmented into three main sections (Ministry of Education of the People's Republic of China, 2022):

1) Phonetics & Pronunciation:

1.1) Understand the significance of phonetics in language learning and its semantic function in context.

1.2) Identify intonation patterns in oral expressions and express thoughts in spoken chunks.

1.3) Perceive and understand the speaker's intent, meaning, and attitude based on variations in stress, intonation, rhythm, and pitch.

1.4) Use variations in stress, intonation, rhythm, and pitch to convey different meanings, intentions, and attitudes.

1.5) Pronounce words based on phonetic rules and phonetic symbols.

1.6) Utilize phonetic symbols to learn word pronunciations when consulting a dictionary.

2) Comprehension & Communication:

2.1) React appropriately and provide fitting responses to consecutive instructions and questions.

2.2) Identify the theme, main idea, and key points of spoken texts such as stories, introductions, descriptions, and announcements.

2.3) Recognize the context of spoken content and determine the speaker's identity.

2.4) Detect changes in the speaker's tone within oral passages to decipher shifts in meaning.

2.5) Understand listened or viewed content with the help of visual aids like pictures and videos.

3) Expression & Application:

3.1) Sing English songs and recite English poems.

3.2) Read passages in a fluent and coherent manner and briefly summarize their main ideas.

3.3) Engage in simple role-playing under the guidance of a teacher.

3.4) Discuss related topics in brief oral exchanges, accomplishing communicative tasks.

3.5) Use accurate vocabulary and expressions in oral presentations, ensuring basic correctness in phonetics and intonation.

The standards are often changed based on what is currently being taught by teachers and what students are learning. The goal is to make learning objectives clearer and reduce repetition of content, while ensuring that the standards are aligned with the grade level at which students are enrolled.

2.3 English Speaking Skill

2.3.1 Definition of English speaking skill

English speaking skill refers to an oral productive skill for English, which is intricate and multifaceted, extending beyond mere pronunciation (Bashir, 2011; Zhen & Hashim, 2022). According to Nunan (1991), English speaking skill is the capacity to express information smoothly and accurately in a variety of circumstances, including the appropriate selection of terminology and structures. Stewart and Edwards (2011) highlighted its paramount importance in effective communication, offering opportunities and benefits for proficient speakers. Successful mastery of the English language hinges on effective speaking skill (Shahini & Shahamirian, 2017), even impacting employment criteria (Boonkit, 2011). According to Richard (2008), speaking entails diverse functions like task completion, idea exchange, world comprehension, and social bonding. Fluent English speaking aids efficient communication and idea exploration, benefiting students. Proficient English speaking also grants students access to contemporary information across fields such as science, technology, and health. Therefore, speaking proficiency warrants utmost consideration in English language learning (Zhen & Hashim, 2022).

2.3.2 The challenges of teaching and learning English speaking

Competence in English speaking hinges on accuracy and fluency, reliant on aspects like grammar, pronunciation, vocabulary, and comprehension. Regrettably, English speaking skill remain challenging to cultivate in English language teaching, be it as a second language (ESL) or foreign language (EFL) (Kuśnierek, 2015; Mansor, 2016; Ounis, 2017; Si, 2019).

Teachers are facing several challenges while attempting to teach English speaking skill, according to Anggraini (2022). Despite the early commencement of English education in China, the rigid examination-oriented system remains a barrier, resulting in a weakness in the development of speaking skill. Currently, China's educational policies still heavily rely on written exams for English subjects, neglecting

the significance of oral exams. This leads Chinese teachers to often prioritize students' listening, reading, and writing skills in their instruction. Traditional monotonous English teaching methods also hinder the cultivation of students' interest in language learning (Gao, 2022; Qi et al., 2021). Furthermore, most teachers lack systematic assessment criteria and timely guidance for oral English learning, leaving them ill-equipped to create authentic language environments for students. Additionally, the scarcity of English language environments in China, coupled with traditional teacher-centered teaching models and varying teacher English proficiency, all impact effective oral instruction. In summary, these issues collectively form the challenges teachers face when guiding students in learning English speaking skill (Hu, 2022).

According to Bounzouay (2020), students encountered a range of issues while studying English speaking skill, including insufficient vocabulary, a fear of errors, lack of speaking confidence, hesitation in conversing with foreigners, concerns over pronunciation, challenges in verbal expression, English teachers not employing English in class, difficulty understanding teacher pronunciation, and inadequate grasp of grammatical patterns. Januarty et al. (2018) investigated the difficulties that junior high school students have when learning to speak English. Internal concerns included low motivation, difficulties with word choice, pronunciation, phrase structure, word arrangement, passive involvement, and self-affirmation. Concerns were raised externally as a result of instructional techniques, teacher-centered practices, restricted student-teacher connection, and minimal involvement. Yao et al. (2019) emphasized major barriers in junior high students' speaking skill, particularly in China. They display poor proficiency, frequently pausing and feeling anxious. Self-regulation issues, restricted participation, and a lack of excitement are all challenges. Furthermore, spoken English instruction in schools suffers from flaws caused by exam-oriented education that ignores interest and skill development. This topic highlights current educational obstacles, which contribute to insufficient fluency.

In conclusion, the challenges in English speaking instruction in China are not solely attributed to students. The teaching process in this regard necessitates effective interaction among schools, teachers, and students. Addressing the issues students encounter in learning English speaking skill requires both schools and teachers to explore novel concepts and methodologies.

2.3.3 The assessment of English speaking skill

The assessment of English speaking skill involves various dimensions. Ilham, Bafadal, and Muslimin (2019) summarized the aspects that need to be focused on to assess students' English speaking skill, based on previous researches. According to Brown (2003), content, grammar, vocabulary, comprehension, pronunciation, and fluency should be included the measurement and evaluation of English speaking. Grammar aids in constructing accurate sentences, while vocabulary is essential for effective communication. Comprehension measures the ability to respond to spoken communication, and pronunciation focuses on clear speech production. Fluency pertains to smooth speaking. Thornbury (2005) categorized evaluation criteria into grammar, vocabulary, discourse management, pronunciation, and interactive communication. Hughes (2005) emphasized accent, grammar, vocabulary, fluency, and comprehension. Considering these factors provides a comprehensive understanding of an individual's English speaking proficiency. In summary, assessing English speaking skill involves evaluating five key components, which are grammar, vocabulary, comprehension, pronunciation, and fluency. These elements collectively provide a comprehensive understanding of an individual's proficiency in spoken English.

2.3.3.1 Grammar

Grammar is required for students to produce correct sentences during discussions. Their ability to manipulate structures and choose appropriate grammatical forms is critical for accurate English communication. Furthermore, mastering grammar promotes command of language in both spoken and written forms, allowing for proficiency in linguistic expression (Brown, 2003). In every type of language, including English specifically, grammar is a fundamental component that cannot be

separated from spoken communication. To establish the intricate relationships between spoken language and the grammatical rules controlling the language, a thorough articulatory description of each phoneme both alone and in linked speech is necessary (Jayaraman, 2012).

2.3.3.2 Vocabulary

Willis (1990) emphasized the significance of vocabulary in English speaking effectiveness. Vocabulary involves the careful choice of words in conversations, facilitating the proficient articulation of ideas orally and in writing. A strong vocabulary is essential, as it ensures the ability to convey thoughts comprehensively. Proficiency in a second language hinges on a diverse vocabulary, enabling the practical application of learned structures and functions for coherent communication. A broad vocabulary is crucial for effective communication, allowing students to comprehend and express ideas (Rashid, Lan, & Hui, 2022). This was supported by Wilkins (1972) and Schmitt (2010). Wilkins (1972) stressed word selection's significance over spelling. Personal experience highlights the value of vocabulary in interactions. As fluency in English improves, word awareness and learning techniques become essential. Schmitt (2010) noted learners prefer dictionaries over grammar books for acquiring new words. Vocabulary mastery enhances English speaking skill, echoing Voltaire's idea that language is hard to capture. When educators decipher word meanings, they consider form, context, and application, fostering effective language use.

2.3.3.3 Comprehension

Huges stated that the cognitive ability to perceive and grasp information is referred to as comprehension. To support efficient discourse in oral communication, both the speaker and the listener must have a firm understanding. Brown (2003) stated that comprehension signifies the extent of students' capacity to react to spoken communication. Students should possess the capability to comprehend whatever the speakers convey. Thus, in order to achieve comprehension in English speaking, both parties must actively participate, involving not just the reaction to the speech but also its introduction (Hughes, 2003). Comprehending new information is

pivotal in language learning, especially for English speaking, it can impact your ability to absorb and use language effectively. Language acquisition follows a structured progression, from basic to complex elements, as understanding grows (Sumerset, n.d.).

2.3.3.4 Pronunciation

Pronunciation involves producing words clearly while speaking, following traditional patterns of speech. English pronunciation involves more than just mastering sounds and words; it encompasses learning and applying the specific way English speakers make their thoughts easy to understand. This encompasses segmental articulation, rhythm, intonation, phrasing, and also peripheral elements like gestures, body language, and eye contact that contribute to a coherent and intelligible flow of speech (Fraser, 2001; Gilbert, 2008; Kline, 2001). Acquiring English pronunciation is challenging and demands significant time investment for improvement. Achieving understandable pronunciation is crucial for learners' competency and effective language instruction. Strong pronunciation aids learning, while poor pronunciation hinders it. Teachers need resources to enhance pronunciation instruction, focusing on methodology rather than the importance. Understandable pronunciation is a key aim and essential for communicative competence in language learning (Fraser, 2000; Pourhosein, 2012, 2016).

2.3.3.5 Fluency

The capacity to speak smoothly and properly without interruptions is referred to as fluency. To preserve the flow of discussion, measuring fluency in teaching entails enabling students to express themselves without instant criticism (Pollard, 2008). One of the learning goals for EFL (English as a Foreign Language) students is to speak English fluently. It is a target that may be attained by studying and using the linguistic inputs. Additionally, it is essential to put learning tactics into practice in order to help pupils study more efficiently (Masyithah, 2020).

In summary, this study's curriculum implementation and assessment of English speaking skill for Grade 7 students will be centered on these five dimensions.

2.4 Mobile-Assisted Language Learning

2.4.1 Definition of MALL

Mobile-assisted language learning (MALL) is the process of assisting or improving language acquisition via the use of a portable electronic gadget. Mobile devices could be employed as pedagogical resources for language instruction. (Chinnery, 2006). Kukulska-Hulme and Traxler (2005) stated that MALL includes the use of mobile technology for language learning, which takes use of device mobility to facilitate interactive interaction with the target language. Nuraeni, Carolina, Supriyatna, Widiati, and Bahri (2020) considered MALL to be as most recent learning method in language education, in which applications or websites are utilized to assist students in their learning tasks. According to Miangah and Nezarat (2012), MALL is concerned with the application of mobile technologies in language learning. Students are not usually required to study a second language at school. They may be able to learn it utilizing mobile devices whenever and wherever they choose. As learning English is regarded as an important factor for professional success and a criterion for being educated in many communities, one of the strategic educational goals aimed at improving students' achievement and supporting differentiation of learning needs is to provide a more convenient environment for people to learn English. Based on the definitions given by the previous researchers, Mobile Assisted Language Learning (MALL) can be defined as the prevalent approach using smartphones and mobile devices to learn languages. In this study, the researcher aimed to enhance the speaking skill of grade 7 students in Guangxi through the utilization MALL via the mobile application "Liulishuo".

2.4.2 Advantages of MALL

MALL offers distinct advantages for enhancing language learning beyond traditional classroom settings. It grants continuous educational access wherever there is a functional signal, enabling users to refresh their language skills prior to or directly after language discussions. Furthermore, the option for users to engage in small synchronous groups while using handheld devices introduces novel opportunities for

collaborative learning dynamics (Nah, White, & Sussex, 2008). Kloper et al. (2002) outlined five essential characteristics of mobile technologies that offer standout educational advantages. These qualities include mobility across locations made possible by portability; social interaction made possible by face-to-face collaboration; context sensitivity made possible by interaction with location-specific data; connectivity made possible by networked learning environments; and individuality made possible by tailoring support to meet the needs of specific learners. These characteristics increase the possibility of mobile devices to provide distinctive and useful educational affordances.

The main advantages of MALL highlighted in the literature can be summarized as follows (Arvanitis & Krystalli, 2021; Burston, 2013; Kukulska-Hulme, 2009):

1) Personalized Learning Framework: MALL allows students to create their own learning framework in terms of timing, location, and utilization of online resources. This leads to independent, self-directed, and autonomous learning experiences.

2) Enhanced Motivation: The use of mobile devices in foreign language teaching/learning increases motivation by offering non-traditional teaching methods that are facilitated by technology familiar to students (e.g., smartphones and tablets).

3) Development of Communication Skills: MALL provides students with more opportunities to develop all six communication skills: written and spoken language comprehension and production, aural interaction, and mediation of both written and spoken content.

4) Target Language Usage: MALL encourages the use of the target language as the primary means of communication, fostering language immersion and practice.

5) Real-world Relevance: MALL facilitates the teaching process by enabling exploration, analysis, discovery, and selection of activities that hold real-world significance.

6) Enhanced Interaction: MALL promotes interaction between real and virtual environments, as well as among students within the same classroom and across classrooms beyond school boundaries.

7) Enjoyable Learning: MALL contributes to a more enjoyable learning experience, making learning engaging and motivating.

According to Sam and Shalini (2021), Mobile-Assisted Language Learning (MALL) promotes synchronous and asynchronous learning while overcoming temporal, geographical, and contextual restrictions. Mobile devices' flexibility, cost-effectiveness, compactness, and user-friendliness have spurred their integration for pedagogical and learning endeavors, announcing a budding research trajectory. While MALL had minimal instructional usefulness before to the Covid-19 outbreak, the pandemic has caused significant technical disruption in many educational institutions. As a result, mobile devices are increasingly widely used in pedagogy, learning, and evaluation processes.

2.4.3 MALL in English speaking instruction

The foundational elements of a learner's communicative capacity include listening and speaking, which are fundamental language abilities that underlie EFL learning. However, learners who often have minimal opportunities to hear or speak true English in everyday life are frequently given decontextualized learning resources and assignments in EFL learning situations that are characterized by restricted exposure to English. As a result, they mostly rely on traditional teaching strategies, which in certain situations may result in a decline in their enthusiasm to study. To address these challenges, Mobile-Assisted Language Learning (MALL) has gradually garnered attention among scholars and has been integrated into the realm of English speaking instruction. Distinguishing itself from traditional methods, MALL capitalizes on its portability and context-driven design to cater to the personalized needs of learners in English speaking acquisition (Xu, 2020). The application of mobile devices as tools for augmenting English speaking instruction has emerged as a novel research avenue pursued by numerous scholars (e.g. Akkara, Mallampalli, & Anumula, 2020;

Almadhady, Salam, & Baharum, 2021; Ataeifar, Sadighi, Bagheri, & Behjat, 2019; Wu & Miller, 2020).

MALL (Mobile Assisted Language Learning) plays a crucial role in English speaking proficiency development by integrating technology into learning. It offers flexible learning through mobile devices, allowing learners to engage anytime, anywhere, in both formal and informal settings. Collaboration is enhanced as mobile devices facilitate interaction among learners, promoting engagement. MALL applications on smartphones provide various features such as grammar, pronunciation, and quizzes, catering to diverse language learning needs. Researchers emphasize its advantages, including device ownership and mobility, affirming its effectiveness. MALL's alignment with smartphone popularity, especially during the pandemic, addresses contemporary learning demands, making it a powerful tool for improving English speaking skill (Athoillah, 2022). Miangah and Nezarat (2012) also highlighted the relationship between Mobile-Assisted Language Learning (MALL) and English speaking instruction. It emphasizes that the mobile devices with multimedia capabilities enable learners to engage with listening and speaking aspects. MALL's potential lies in incorporating voice transmission, allowing learners to access pronunciation-enabled dictionaries to improve their pronunciation of unfamiliar words. The utilization of multimedia-equipped mobile devices enables learners to record their voices, aiding teachers in assessing pronunciation weaknesses. According to Kim (2017) and Li (2022), MALL can reduce English listening anxiety and improve listening comprehension while students are learning English speaking. At the same time, MALL can help learners improve their accuracy and fluency in English speaking. Almadhady et al. (2021) mentioned that many studies have demonstrated how modern technologies go far beyond conventional teaching approaches to improve EFL learners' speaking abilities.

2.5 Liulishuo Application

2.5.1 Introduction of Liulishuo

The Liulishuo English Application is an engaging and innovative smartphone app for language acquisition. It facilitates effective and enjoyable English learning through a pioneering auto-scoring mechanism for spoken language developed in Silicon Valley, expertly crafted English training programs, extensive educational materials, and meticulously designed progressive gamified activities (English Liulishuo App, 2023). Based on the Recurrent Hierarchical Recursion (RHR) cognitive theory invented by Knowles (2008), an academic advisor to the company, it employs AI technologies like speech recognition, natural language processing, and deep learning to offer real-time speaking assessment, pronunciation correction, and targeted English oral improvement guidance. The app provides a conducive speaking environment, engaging content covering various topics, and tailors learning materials to users' interests and proficiency levels. It positions itself as an efficient and personalized AI English teacher (Xian, 2021).

"English Liulishuo" has gained significant popularity and a positive reputation among students. The app focuses on improving students' English reading skill by offering reading exercises. These exercises feature articles sourced from foreign newspapers and magazines like The Economist, The Financial Times, and The New York Times on a daily basis. Each article is accompanied by a thorough explanation of challenging words, phrases, and sentence structures, as well as background information and passage structures. Notably, the app employs a well-designed strategy that encourages daily reading and sharing of achievements with friends, which has been recognized for its effectiveness (Liu, 2020).

Lin (2022) stated that Liulishuo has over 160 million downloads and unicorn status in the education industry six years after its start. The software is divided into two sections: "Easy Learning" and "Customized Learning". The former provides free content in order to attract and perhaps convert users into paying learners. The latter,

known as "Customized Learning" or "Know Your English", offers paid courses aimed at gradually increasing customers' English skill levels. The "Easy Learning" module is divided into two parts: "Punch Card" and "My Courses". The "Punch Card" function encourages users to study every day, displaying the day's speaking score, the length of study, and the number of consecutive punching days. The "Punch Card" function encourages users to study every day by displaying the number of consecutive days of study and the number of hours they have studied in a row. My Courses" displays the spoken English courses added by users in different contexts, and the courses are conducted in a game-like mode, covering listening, vocabulary and speaking to enhance the learning experience. In addition, there are interesting features such as PK, real conversations and personalized recommendations. "Know Your English" provides personalized courses with the right level of difficulty according to the user's English level. Each level contains a core unit course and a level test, which is passed to move on to more advanced courses. Unit lessons combine learning and games and cover listening, vocabulary and speaking. The next level of the course is unlocked using a "progress mode", which encourages users to review past lessons to improve their proficiency. User incentives include cashback campaigns and class rankings to increase motivation.

2.5.2 Advantages of Liulishuo

Liulishuo, an AI-powered language learning app, stands out for its effectiveness in Mobile-Assisted Language Learning (MALL) assessments. The Automated Speech Recognition (ASR) function, which recognizes speech automatically, empowers self-guided learning and allows users to share their progress independently. This aligns with the idea that AI mimics human reasoning and learning processes. Liulishuo's wealth of learning materials goes beyond traditional classrooms, offering a broader learning experience. Moreover, incorporating teachers' guidance into spoken English learning further empowers learners to take charge of their progress. The app also fosters a sense of community through online platforms, where users can share their daily practice results. Liulishuo tackles diverse assessment challenges by adhering to key assessment characteristics, ensuring accuracy and reliability. This approach emphasizes its value in

AI-driven language education, effectively addressing a range of learning needs within the context of MALL assessments.

Liu (2022) stated that Liulishuo provides diverse dialogue content covering various scenarios, catering to different difficulty levels and fostering systematic learning. It includes authentic American conversations curated by experts, allowing students to practice aligned with their interests and enhancing their awareness of real-world events. The automatic scoring system utilizes AI technology to assess users' pronunciation and provide instant feedback, aiding in refinement of fluency. The app accommodates busy schedules with short, flexible practice sessions. Customized oral classes and AI teachers help students overcome speaking anxiety and improve confidence. The app's online community encourages engagement through group interactions, motivating completion of tasks and fostering healthy competition. Overall, Liulishuo English combines abundant resources, automated feedback, flexibility, personalized instruction, and community support to enhance oral English teaching and learning.

The usage of Liulishuo has the apparent benefits of being rich in content, simple to operate, and convenient to use in order to enhance students' autonomous study. They develop their skills by mimicking native speakers. In contrast to typical classroom learning, in which the teacher concentrates on "reading" and "writing", students complete a variety of tasks to learn English. Domestic English learners' overall competence suffers from a lack of "listening" and "speaking" combined study. As a result, using Liulishuo is a method that may truly compensate for the weaknesses of the four unevenly developed talents (Yang, 2019). Additionally, Qi et al. (2021) further highlighted the advantages of the Liulishuo app. The entire application's role in instructional support reflects the constructivist theory, encouraging students to engage in autonomous learning and providing them with opportunities to speak English in their daily lives. Furthermore, the app's shadowing mode assists students in acquiring accurate pronunciation and speech rhythm, enabling them to repeatedly listen to sentences and correct their pronunciation based on their individual needs. Moreover, the application's paraphrasing mode aids students in enhancing their ability to memorize complex sentences and contributes to their listening skill.

According to the "2016 Annual Education App Rankings" released by Sina China Education Summit, Liulishuo ranked 6th overall and 1st in English oral education apps. As of 2021, Liulishuo has accumulated over 200 million registered users, spanning 384 cities in China. It can be considered the most influential English oral mobile learning app in terms of user base and impact within the country (Xian, 2021). Bottle (2022) made an analysis on Liulishuo, he found that Liulishuo receives an average of 2300 daily searches in China, comprising 30% of searches for English learning apps. Roughly, for every 3 individuals searching for English content, one was searching for Liulishuo, reflecting its considerable popularity. Furthermore, Liulishuo ranks first among oral learning applications within the college student community, and it holds the top position among English learning applications for professionals in the workplace. The reasons behind Liulishuo's remarkable popularity and extensive user base have been explored by many researchers. According to the study of Long (2023), Liulishuo's popularity is attributed to diverse post-class oral learning resources, providing an authentic language usage environment and connecting with real-life topics. Moreover, its accountability system and teacher feedback were well-received, leading to a positive learning experience and willingness to continue using the app for oral learning. Zhang (2019) also stated that Liulishuo offers abundant, emotionally rich educational resources, enhancing students' interest and promoting autonomous learning, ultimately improving speaking skill. This example highlights the potential of this application in expanding basic education English speaking teaching and fostering student autonomy. Furthermore, Qi et al. (2021) noted that Liulishuo adheres to constructivist theory, fostering autonomous learning and speaking opportunities. Its shadowing mode improves pronunciation, while the paraphrasing mode enhances memory and listening skill. The app's accountability system boosts practice consistency and confidence.

In conclusion, Liulishuo as an AI-powered language learning app, has excellent performance in MALL through its ASR function, enabling autonomous learning and independent progress sharing. It offers diverse content, authentic conversations, and personalized guidance to enhance students' speaking fluency and confidence. These outstanding features distinguish Liulishuo from other English learning apps, especially in the realm of English oral learning, making it a formidable

contender in this field. The app's community engagement and adherence to assessment standards highlight its value in AI-driven language education, addressing diverse learning needs effectively. Additionally, it fosters a sense of community, aiding learners in refining pronunciation and memorization skills. Overall, Liulishuo stands as a comprehensive tool for language learners seeking effective and personalized language acquisition.

2.5.3 Application of Liulishuo in English speaking instruction

Mobile learning integrates technology and education, enabled by devices like smartphones and tablets. It broadens learning scope, offering anytime, anywhere access to resources, overcoming traditional teaching constraints for enhanced learning opportunities (Hashim, Tan, & Rashid, 2015). English teachers aim to enhance ESL lessons for student engagement and language retention. Incorporating English apps is essential to ensure effective teaching and address the challenge of language acquisition. Embracing technology in English classes has become vital to achieve teaching goals in this digital age (TEFL Lemon, 2002).

Lin (2022) gave his suggestions on how to apply Liulishuo to English speaking instruction:

1) Integrating Online Software with Offline Classrooms: Incorporate the Liulishuo app as a supplementary tool within traditional face-to-face oral English classes. While offline classes remain central, the app can enhance the overall teaching plan.

2) Preparation and Homework: Prior to class, educators can assign students to use the Liulishuo app for preparation by listening to and imitating spoken content. This readies students for upcoming lessons. After class, teachers can assign homework through the app to reinforce topics covered during the class.

3) Utilizing Automatic Speech Recognition (ASR) Functionality: Students can leverage the Liulishuo app's ASR feature to practice spoken expressions by recording their voices. This aids in improving pronunciation, intonation, and

fluency. Teachers can assess students' oral proficiency by evaluating their recordings and providing feedback.

4) Tailored Guidance: Teachers can offer personalized oral guidance based on individual student progress and needs. Using students' recorded exercises and advancement, educators can design targeted teaching plans and recommendations to help students overcome oral communication challenges.

5) Engaging in Online Community Interaction: Capitalize on the Liulishuo app's online community feature to encourage students to share practice achievements, experiences, and queries. This fosters a positive learning environment and encourages active participation in oral practice.

6) Assessment and improvement: Teachers can evaluate students' oral proficiency through their performance and activities within the Liulishuo app. By analyzing students' interactions, discussions, and practice outcomes, educators can swiftly identify issues and make necessary improvements.

7) Exploring Topics in Depth: Leverage the app's discussion feature to guide students in delving deeply into specific topics during oral practice. This encourages students to go beyond mere imitation and engage in critical thinking and expression.

8) Fostering Independent Learning: Encourage students to use the Liulishuo app for oral practice during their own time. Teachers can assign tasks or topics that resonate with students' interests and needs, empowering them to practice autonomously.

To sum up, the Liulishuo app's rich resources, personalized guidance, and automatic assessment tools make it a valuable supplementary asset in English speaking teaching. When integrated with in-person classroom instruction, educators can effectively enhance students' oral communication skills, stimulate their interest in learning, and nurture independent learning abilities.

2.5.4 Steps to Use Liulishuo Application

Based on the suggestions of Lin (2022) and the features of Liulishuo, the steps to use Liulishuo application in the instruction of this study are as follows:

2.5.4.1 Step 1 of using Liulishuo Application

Figure 2.1 Step 1 of Liulishuo Application
Source: Researcher

When students use the Liulishuo app, they should access the app with a Wechat account or mobile phone account to have an account with the Liulishuo app and view the app scores and notifications. In addition, the app has an intelligent AI test that allows students to know their English level and choose a course to study. Courses range in difficulty from beginner to advanced.
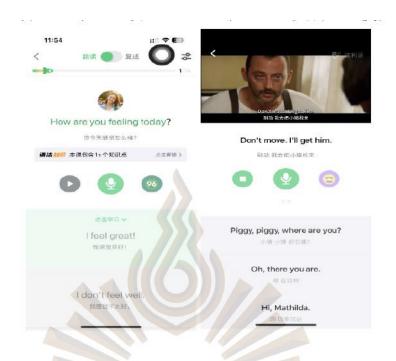
2.5.4.2 Step 2 of using Liulishuo Application

Figure 2.2 Step 2 of Liulishuo Application

Source: Researcher

After opening the Liulishuo app, the [Learning] section on the homepage will show the current free daily practice courses, with the study time displayed at the top and the available courses in the middle. The content of the courses includes daily life, social life, business, literature, etc. Students can choose their own courses to learn, and can also practice speaking according to the recommended daily content below.

2.5.4.3 Step 3 of using Liulishuo Application

Figure 2.3 Step 3 of Liulishuo Application

Source: Researcher

In this step, students are instructed to take speech recognition and listening tests to see how fluent they are in speaking. The speech exercises are segmented by utterance and practiced one sentence at a time. First, the system has real people pronounce the words. After listening to the authentic English pronunciation, students can click the microphone button in the middle and repeat the words to themselves, and the system will intelligently grade you according to your pronunciation. If you don't understand a word, you can click on it directly and a detailed explanation of the word will appear below, including pronunciation, translation and follow-along reading, and key words can be bookmarked for review at any time.

2.5.4.3 Step 4 of using Liulishuo Application

Figure 2.4 Step 4 of Liulishuo Application
Source: Researcher

After completing the current lesson, the app will make a comprehensive score based on the student's pronunciation and visualize the four dimensions of pronunciation, rhythm, fluency and accuracy, so that the student can intuitively feel his pronunciation level. All the pronunciation data is evaluated by AI, which compares the student's pronunciation with the authentic pronunciation of real people and marks the parts that need more practice, including the pronunciation of utterances and words, while the parts with standard pronunciation are also marked synchronously. The application will give the students a grade, such as A for excellent, B for good, C for students should work harder. Students will be given a grade, such as A for excellent, B for good, C for students who should work harder.

2.6 Students' Learning Satisfaction

2.6.1 Definition of Students' learning satisfaction

Satisfaction denotes the positive feeling experienced when one's expectations are met. In the context of students, students' learning satisfaction signifies their well-being and contentment when their expectations and academic needs are fulfilled (Vázquez, Guadalupe, García, & Alberto, 2022). According to Topala and Tomozii (2014), the perception of how students feel about the learning process or how much their desire to learn has been satisfied as a result of their learning experiences is known as students' learning satisfaction. Weerasinghe and Fernando (2017) stated that students' learning satisfaction is defined as a short-term attitude resulting from an evaluation of students' educational experience, services, and facilities. Education-related satisfaction includes a wide range of emotional states. This feeling is a result of how much learning is seen to be enjoyable. The enjoyment for students goes beyond meeting learning objectives; it also shows a change in their attitudes about learning and a greater willingness to participate in the learning process (Topala & Tomozii, 2014). According to Chang, I. and Chang, W. (2012), learning satisfaction comes easily when the actual experienced aspects of learning meet or exceed anticipated expectations.

2.6.2 Assessment of Students' learning satisfaction on English speaking

With regard to how to measure students' learning satisfaction, Topala and Tomozii (2014) reviewed a series of scholarly studies on learning satisfaction and summarized a number of unique measures of students' learning satisfaction, of which the three most frequently cited dimensions are Motivation, Engagement and Efficacy of learning (Chang, I. & Chang, W., 2012; Chien, 2007). Xing (2019) stated that the root cause of Chinese students' unsatisfactory learning of spoken English and their low level of speaking is the lack of motivation. Wang and Li (2018) mentioned that due to teachers' constrained energy and time and the suboptimal structuring of the teaching schedule, achieving high engagement among middle school students in English speaking learning becomes challenging. As per Qu et al.'s (2020) account, students'

satisfaction in the English speaking learning depends on the perceived learning effect in the process.

In Brown's (2000) perspective, motivation plays a pivotal role in acquiring speaking skill. Strong motivation fosters success in improving speaking abilities, while inadequate motivation hinders achieving speaking goals. Fluent English speaking proficiency is inherently linked to individual motivation. Additionally, teacher-centered education takes precedence over students' active participation in the traditional teaching model. However, a successful teaching approach would pay particular attention to students' cognitive and emotional growth as well as their specific learning requirements, suggesting that student engagement should be at the heart of English speaking training (Sung, 2016). The chance of satisfaction rises when students experience a sense of integration with other students (Nyath & Sibanda, 2023). Furthermore, in the study by Wang (2023), it was established that the efficacy of MALL significantly influences students' satisfaction during the process of language acquisition. Students' perception of the efficacy of instructional methods employed by educators during English speaking skill learning directly impacts their level of satisfaction.

In conclusion, based on a review of previous literature and the current status of Chinese students' oral English learning, it can be summarized that students' contentment with their oral English learning experiences predominantly hinges on factors such as motivation, engagement, and perceived effectiveness. The assessment of students' learning satisfaction on English speaking can be centered around these three dimensions.

2.7 Related Theories

2.7.1 Constructivism

Constructivism stands as a theory of learning that suggests knowledge is most effectively acquired by engaging in thoughtful contemplation and actively constructing ideas within one's mind (Mascolo & Fischer, 2015). According to Beghoul and Chelghoum (2016), constructivism constitutes a learning theory that has exerted influence within the sphere of education, particularly educational psychology. Numerous psychologists, including luminaries such as Piaget (1960), Vygotsky (1978), and Bruner (1996), have contributed to its formulation. Constructivism underscores a pedagogy centered around the student, whereby learners construct their own knowledge, while instructors assume roles as guides or facilitators of the learning process (Beghoul & Chelghoum, 2016).

Constructivism emphasizes active learning and self-discovery. Applied to English learning, it promotes engagement, critical thinking, and communication skills (Venkadeswaran & Ramanatha, 2019). Karim, Abu, and Khaja (2017) stated that the constructivist

approach makes MALL an essential part of the learning process to promote learners' independence. The use of Liulishuo for English speaking teaching follows to constructivism while developing student autonomy and offering opportunities for casual English discussion. Additionally, its shadowing mode helps students learn proper pronunciation and speech rhythm by allowing them to continually listen and correct pronunciation according to their unique needs. Additionally, the paraphrase function of the program helps students improve their recall of complex sentences, which also improves their listening comprehension abilities (Qi et al., 2021).

2.7.2 Situational Language Teaching Theory

Situational Language Teaching (SLT) was developed by British applied linguists Harold Palmer and A.S. Hornby. SLT bridges the gap between grammar translation approaches and Communicative Language Teaching, resembling US audio-lingualism. It introduced second language grammar and vocabulary in natural contexts, prioritizing oral and aural skills before literacy (Smith & Loewen, 2018). In terms of matching vocabulary and sentence structures with their common situations using learning resources, situational language teaching (SLT) is an effective instructional paradigm for English teaching. As educational technology advances, integrating SLT principles into ubiquitous learning (u-learning) becomes essential, benefiting both educators and learners (Huang, Yang, & Hwang, 2010).

From a methodological standpoint, the situational language teaching method draws from the principles of reflection theory, applied to learners' subjective consciousness. Currently, language researchers and educators worldwide emphasize the significance of the teaching context. The central tenet of situational teaching revolves around stimulating learning motivation. Bloom and Karin (1989) advocated that effective language classroom instruction should incorporate real-life scenarios, enabling students to apply their acquired knowledge. Students may benefit from more genuine contexts for speaking practice through mobile device-driven learning activities, which will allow them to use their English language proficiency in authentic settings. This is consistent with situational language teaching's guiding principles, which emphasize the use of language in real-world situations (Hwang, Shih, Ma, Shadiev, & Chen, 2016). Hu (2012) believed that situational language teaching can inspire students' interest in learning and facilitate their foreign language acquisition. However, the content of situational teaching often focuses heavily on written exams in China, and there are still many shortcomings in oral instruction. Particularly, the effectiveness of situational design needs improvement (Wang, 2023).

2.7.3 Second Language Acquisition theory

According to Second Language Acquisition theory, learning a second language and learning a child's first language are both extremely comparable processes. It entails having meaningful conversations in the target language, or natural communication, where the emphasis is on comprehending and communicating the information rather than on the language's grammatical structures (Krashen, 1994). Krashen's five hypotheses on second language acquisition have had a significant influence on language study and education. The Acquisition-Learning Hypothesis contrasts between unconscious language acquisition, similar to how toddlers acquire their first language, and conscious language learning, in which learners consciously uncover grammatical rules. The Monitor Hypothesis focuses on the learner's conscious use of language and accuracy, assuming they know the rules and have time to study them. According to the Natural Order Hypothesis, learners acquire grammatical structures in a fixed and universal sequence, similar to first language development. The Input Hypothesis emphasizes the relevance of engaging and entertaining linguistic input in the learning process. Finally, the Affective Filter Hypothesis emphasizes the importance of emotions, implying that a good and stress-free learning environment is essential (Almaden, 2022).

The adoption of Krashen's second language acquisition theory in China commenced in the 1980s, yet its impact was constrained due to the country's English education approach. English is frequently treated as a foreign language, prioritizing exam preparation over practical real-life use. This creates a substantial gap between traditional classroom methods and the authentic language environments necessary for effective language acquisition (Sun, 2017). MALL serves as a supportive tool for second language learning on mobile devices, capitalizing on the advantages of mobile phones to offer a more convenient learning experience. It aids in creating a language learning environment that facilitates students' success in both exams and real-life task-driven language learning. Additionally, MALL contributes to reducing the workload of teachers, allowing educators to focus more on monitoring and supporting students' learning progress (Leow, Ahmad, Wan, & Samsudin, 2014). Viberg and Grönlund

(2012) similarly endorsed the notion that mobile technology has the potential to improve the acquisition of second and foreign languages. They emphasized that the utilization of mobile technology has a substantial impact on the process of acquiring a new language. According to Klimova and Zamborova (2020), the adoption of mobile applications for improving ability in second language acquisition is increasing. Students express a preference for utilizing these mobile apps, both within and beyond academic environments, particularly when the content is interactive and replicates real-life scenarios. In summary, the intervention of MALL in education serves as a method to bridge a significant disparity between conventional classroom approaches and the genuine language environments imperative for proficient language acquisition.

2.8 Related Research

2.8.1 Foreign research

Zhen and Hashim (2022) investigated the impact of English speaking proficiency for long-term education among English language learners. While prior research has demonstrated that Mobile-Assisted Language Learning (MALL) can improve speaking abilities, there has been little attention on its use in English preparation. To address this gap, they undertook a comprehensive analysis of studies published between 2013 and 2022 on the use of MALL in the preparation of persons to speak English. The findings showed that MALL use had a favorable influence on emotional factors such as motivation, self-confidence, and anxiety reduction, particularly helping older and adult learners. However, there was a significant void in research about MALL's usage at elementary and secondary school levels, underlining the need for more study in these areas to help English language learners.

Athoillah (2022) explored the impact of Mobile Assisted Language Learning (MALL) using the Talk English Application (TEA) on 11th-grade students' listening and speaking skills at SMAN 1 Tirtayasa in the 2020-2021 academic year. The research used an experimental design with two classes: one using MALL (XI IPA 3) and the other conventional teaching (XI IPA 1). Data collection included listening

questions and paired conversation videos. The analysis revealed a significant difference, favoring MALL (Ha accepted, Ho rejected) with higher scores. MALL not only improved language skills but also provided convenient access to daily conversation materials through smartphone integration, enhancing interactive English learning.

Nur (2022) conducted a study that aimed to investigate the integration of MALL into English instruction. Employing a systematic review methodology, the research findings highlight the positive impact of MALL on students' English language development, generating favorable outcomes. Both parents and teachers express interest in promoting MALL in English education. Teachers are enthusiastic about its potential application, and MALL has a positive influence on education, as students eagerly utilize it in English classrooms, finding it advantageous for task execution. To address challenges faced by teachers and students in implementing MALL, including psychological, pedagogical, and technical limitations, stakeholders are encouraged to formulate solutions and policies for effective technology-driven learning in English instruction.

Uwababyeyi, Ngoboka, and Anguru (2021) examined the role of Mobile Assisted Language Learning (MALL) and Computer Assisted Language Learning (CALL) in improving English speaking skill in Rwandan Higher Learning Institutions (HLIs). Seven HLIs in Kigali and provinces were chosen using random and purposive sampling. The research revealed that current teaching methods prioritize grammar and vocabulary due to high student numbers and limited class time, resulting in inadequate speaking practice. Both students and teachers believe that MALL and CALL have the potential to enhance speaking skill, emphasizing the need for tasks involving speaking practice beyond the classroom. However, effective implementation requires close monitoring, ICT training for instructors, well-equipped language labs, and collaborative efforts among stakeholders in HLIs.

Lutfi (2020) investigated the use of Mobile-Assisted Language acquisition (MALL) to increase autonomous language acquisition. They implemented the computer tool Quizlet to help students improve their speaking abilities outside of the classroom, with the goal of promoting sustainability and independence in learning. The action research and questionnaires utilized in the study with 30 students at STMIK AKAKOM Yogyakarta were used to examine the feasibility, usefulness, and sustainability of this technique. While autonomy was allowed, teacher assistance remained necessary, and students offered excellent reviews on the app's usability and sustainability of language learning.

While the majority of foreign literature acknowledges MALL's significant role in English learning, particularly in improving students' English speaking skill, there were also skeptical viewpoints in the discourse. Nur et al. (2022) emphasized the importance of research and pedagogical evidence to validate enthusiasm for any technology. Questions have arisen regarding the effectiveness of MALL in improving students' English oral proficiency. In a study by Tarighat and Khodabakhsh (2016), the MALL approach was employed to examine the attitudes of advanced English learners toward using mobile devices for English speaking learning. The results revealed diverse perspectives among learners, with some expressing reservations regarding fairness and authentic communication in this context.

2.8.2 Chinese research

Li (2023) assessed the viability and efficiency of utilizing WeChat, a well-known social media platform in China, to acquire English vocabulary during the COVID-19 epidemic. The researchers at a university in northern China gathered qualitative information from five students and three English language instructors using two sets of semi-structured interviews. The WeChat-assisted lexical-learning program (WALL) was shown to be highly effective throughout the epidemic, with mainly favorable assessments. The study offered suggestions for upcoming mobile-assisted language learning (MALL) applications based on these findings, with the intention of helping educators, professionals, and students in related situations.

Lin et al. (2022) investigated MALL acceptance among college EFL teachers in China, using the Technology Acceptance Model (TAM). A survey of 30 in-service college-level EFL teachers in Yunnan, China, revealed their high MALL acceptance. Teaching experience influenced their intentions to use MALL. Perceived Usefulness (PU) and Perceived Ease of Use (PEU) significantly impacted Behavioral Intention (BI), which, in turn, predicted Actual Use (AU) of MALL. The study demonstrated TAM's relevance in understanding MALL acceptance among college EFL instructors and shed light on factors that influenced their adoption of mobile technology for language teaching.

Zhou (2021) undertook a thorough analysis of Mobile-Assisted Language Learning (MALL) research in Chinese settings for English as a Foreign Language (EFL), with an emphasis on spoken English, spanning the years 2017 to 2021. The review looked at a number of things, such as study features, hypotheses, and research approaches. The results showed that speaking abilities may be improved via mobile technology. But the majority of research were small-scale, quasi-experimental, and mostly done in higher education settings. The author criticized these investigations for lacking theoretical rigor and paying inadequate attention to emotive elements like motivation and speaking fear.

Li (2021) examined how the "IELTS Liulishuo" mobile-assisted language learning (MALL) software affects Chinese university students' ability to speak English. The study evaluates the app's advantages based on seven criteria, pointing out drawbacks and suggesting remedies. The study shows the beneficial impacts of a MALL English speaking assessment app with automated speech recognition (ASR) on enhancing complexity, accuracy, and fluency in Chinese college students' English skills, despite technological and pedagogical constraints in less developed locations.

In order to evaluate mobile-assisted language learning (MALL) in an English as a Foreign Language (EFL) listening and speaking course at a Chinese university, Xu (2020) used an action research methodology. 61 business English majors took part. Keke, an app for learning English, was included into MALL activities. Questionnaires,

reflective diaries, interviews, and competency tests were some of the data collecting techniques used. Two action study cycles' findings revealed better attitudes about MALL for listening, but speaking abilities didn't advance significantly. The study has implications for MALL-based EFL speaking and listening instruction.

Like foreign researchers, some Chinese researchers have also found research outcomes that differ from the majority of studies regarding the impact of MALL on students' English speaking skill. In response to the evolving educational landscape driven by internet technology and the diverse learning modes available to students, Qi et al. (2021) explored the impact of the Liulishuo app on students' English speaking abilities, emphasizing autonomy and reducing anxiety in language learning. Grounded in constructivist theory, the research allowed students to independently select articles for practice, leading to improvements in vocabulary, grammar, and fluency. However, the final experimental results showed that there was no significant difference between the pre-test and post-test data, and the promotion effect of MALL on students' English speaking level has been questioned. Furthermore, Li (2023) in her study raised concerns about possible distractions in the classroom and the unpredictability of learning outcomes. This viewpoint have prompted questions about whether MALL has a positive or negative impact on students' English oral proficiency development.

2.9 Conclusion

In summary, while most scholars have indeed affirmed the efficacy of utilizing mobile devices to enhance students' English oral proficiency, there still exist some voices of skepticism. Clearly, there is a need for further exploration in the realm of Mobile-Assisted Language Learning (MALL) to promote students' English speaking skill. Research outcomes in this field in China have mostly relied on content analysis-based reviews of past literature, lacking empirical evidence. Furthermore, the current research focus in this domain predominantly revolves around higher education, overlooking the pivotal phase of junior high school according to Zhou (2021), which is crucial for nurturing students' language expression and English oral proficiency. Particularly within the Chinese context, there is a noticeable research gap regarding

the utilization of mobile devices to facilitate English oral skills among junior high school students. Consequently, this study aims to compare grade 7 Chinese students' English speaking skill before and after the use of MALL through "Liulishuo" application and examine Grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application.

CHAPTER 3

RESEARCH METHODOLOGY

This study sought to enhance the English vocabulary skills and satisfaction of eighth-grade Chinese students in learning English vocabulary through the implementation of the situational teaching method. In this chapter, the researcher outlined the methodology of the study, encompassing the research design, participant selection, data collection tool, assessment of research instrument validity and reliability, and data analysis.

3.1 Research Design

This research was conducted using quantitative method. According to Bryman (2012), quantitative research is a methodology centered on quantifying data collection and analysis. Rooted in a deductive approach, it prioritizes theory testing influenced by empiricist and positivist philosophies. Quantitative approaches place an emphasis on precise measurements, statistical, mathematical, or numerical analyses of data collected through polls, surveys, or questionnaires, as well as the modification of historical statistical data using computing techniques. This approach helps to gather numerical data, allowing both population-level generalizations and descriptive insights into particular events (Babbie, 2010; Muijs, 2010). The Figure 3.1 presented whole process of the study design.
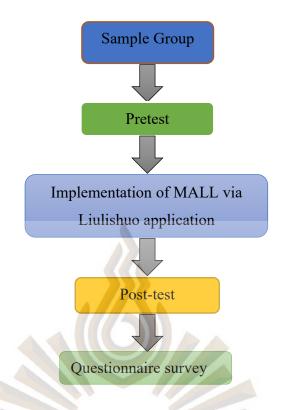
Figure 3.1 Research Design of the Study

In this study, the researcher collected quantitative data through academic English speaking skill tests and a questionnaire. The English speaking skill test included a pre-test and a post-test. The objectives of the study were: 1) to compare grade 7 Chinese students' English speaking skill before and after the use of MALL through "Liulishuo" application; 2) to examine Grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application. The English speaking skill test was used for assessing the improvement in speaking skill of grade 7 students and the questionnaire was used to evaluating the students' satisfaction with the use of Mobile-Assisted Language Learning (MALL) via the "Liulishuo" application for improving speaking skill.

3.2 Population and Sample

3.2.1 Population

The target population of this study included 4 classes in a junior high school in Guangxi Zhuang Autonomous Region, China, with an average of 30 students per class. Participants' ages range from 10 to 14 years old, with diverse genders and varying English proficiency levels.

3.2.2 Sample group

In this study, one class (30 students) out of four 7th-grade classes was chosen through a clustered random sampling technique as the sample group.

3.2.3 Location

This study was conducted with the students studying at the Guangxi Sports School in the Guangxi Zhuang Autonomous Region of China. As of 2023, the school, recognized for its high-standard sports talent development, included around 90 teachers and 1,150 students, with 120 students in the Grade 7. As an integral component of the curriculum, English proficiency was obligatory for all students at every grade level.

3.3 Research Instrument

According to the research objectives, three quantitative data collection instruments were employed in this study including the lesson plans, English speaking skill tests (both pre-test and post-test), and a questionnaire.

3.3.1 Quantitative Data Collection Instruments

3.3.1.1 Lesson Plans

The researcher incorporated four 90-minute lesson plans, each focusing on improving Grade 7 students' English speaking skill based on the material outlined in the English speaking standards for grade 7 students in China (Ministry of Education of the People's Republic of China, 2022). During these lessons, the researcher utilized MALL via the Liulishuo application, covering four topics design by the researcher. The teaching materials used in the lesson plan were selected from the Liulishuo application and ensured that they were suitable for the English speaking teaching of Grade 7 students. The topics in consonance with the lessons are correspondingly shown in the table 3.1 below.

Table 3.1 Lesson Plan Outline

Lesson plan	Topics/Sessions	Teacher-student Activities
Test	Pretest	
Lesson plan 1 (Week 1)	Learn speaking via English speaking application	Session 1: Pre: Warm-up on mobile apps. While: Intro to Liulishuo. While: Initial assessment. Post: Feedback, student grouping. Session 2: Pre: Warm-up on previous learning. While: Practice patterns on Liulishuo. While: Group work, feedback. Post: Group discussion, reflection.
Lesson plan 2 (Week 2)	Engaging English Speaking Practice with Liulishuo: Making Friends and Dubbing	Session 1: Pre: Warm-up on previous learning. While: Intro to Liulishuo. While: Practice vocabulary and sentences.

Table 3.1 Lesson Plan Outline (Cont.)

Lesson plan	Topics/Sessions	Teacher-student Activities
Test	Pretest	
		Post: Feedback, student grouping. Closure: Recap main points, praise effort. Preview next topic for interest and continuity. Session 2: Pre: Warm-up on previous learning. While: English dubbing practice. While: Group work, feedback. Post: Discuss dubbing process, reflections. Closure: Summarize key points, emphasize practice. Acknowledge effort. Preview next topic.
Lesson plan 3 (Week 3)	Engaging English Speaking Practice with Liulishuo: Talking about the weather and Dubbing	Session 1: Pre: Warm-up on previous learning. While: Pair conversations on weather scenarios. Post: Write a weather conversation. Closure: Summarize and preview the next session. Session 2: Pre: Recall previous session, watch a dubbing video. While: Pair dubbing, feedback. Post: Watch notable dubs, feedback. Closure: Summarize, praise, and preview next lesson.

Table 3.1 Lesson Plan Outline (Cont.)

Lesson plan	Topics/Sessions	Teacher-student Activities
Test	Pretest	
Lesson plan 4 (Week4)	Dubbing Competition and Self-Created Dialogues	Session 1: Warm-up and Introduction: Greet, check devices, explain dubbing competition, and review previous lessons. Clip Selection and Preparation: Choose dubbing clips, rehearse. Competition: Perform live, receive feedback, announce top groups. Closure: Congratulate, emphasize teamwork. Session 2: Warm-up and Introduction: Greet, check devices, introduce self-created dialogues, discuss topics. Designing Dialogues: Craft dialogues. Presentation: Perform dialogues, receive feedback. Closure: Highlight performances, encourage practice.
Test	Posttest	

3.3.1.2 English speaking skill Tests (Pretest and Posttest)

The sample group accepted both a pre-test and a post-test in order to assess their English speaking skill, with a particular focus on vocabulary, grammar, pronunciation, fluency and comprehension.

The English speaking skill Test consisted of two sections: the vocabulary section and the speaking proficiency section. In total, there were 25 points available.
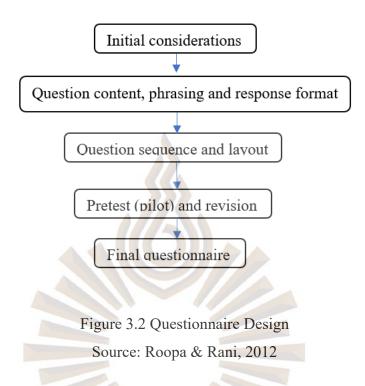
Vocabulary Section: Students were required to speak aloud a list of words related to various topics.

Speaking Proficiency Section: Students were given a choice of three topics (My best friend, My favorite weather, My hobby) and must choose one. They have two minutes for preparation and two minutes for presentation on the chosen topic.

To mitigate the potential for bias, each participant was assessed by two raters, one of whom was the researcher, while the other was an English teacher from the same school who was enlisted to carry out the pre- and post-test evaluations. The pre-test and post-test scores were computed by aggregating the assessments of these two evaluators (averaging them).

3.3.1.3 Questionnaire

A questionnaire functions as a research tool comprising a sequence of inquiries aimed at collecting information from participants. It can be likened to a written form of an interview, conducted in various formats including face-to-face interactions, telephone conversations, computer-based interactions, or postal exchanges (Mcleod, 2023). According to World Health Organization (2001), Questionnaires must consistently possess a distinct purpose aligned with the research objectives, and it's imperative to establish upfront how the gathered findings will be applied. According to Roopa and Rani (2012), to gather valuable and pertinent information, meticulous attention must be devoted to crafting your questionnaire. Developing a well-structured questionnaire demands thorough planning and effort, involving various stages as illustrated in Figure 3.2. In order to examine students' satisfaction with MALL via Liulishuo application in the English courses, the researcher designed a questionnaire consisted of 15 statements on a five-point scale to investigate the motivation, engagement and learning efficacy of the students. Each statement employed a five-point Likert scale, spanning from 5 to 1, representing varying levels of agreement: (5) strongly agree, (4) agree, (3) neutral, (2) disagree, and (1) strongly disagree (Likert, 1932). Before distributing the questionnaire to the participants, the researcher conducted a pilot test to assess the reliability of the items included in the questionnaire. Prior to respondents' assessment of each questionnaire statement, they were

provided with comprehensive information clarifying that every statement had been individually explained and accompanied by specific instructions.

Figure 3.2 Questionnaire Design
Source: Roopa & Rani, 2012

3.4 Content Validity and Reliability

3.4.1 Content Validity

Content validity can be defined as how representative the items or tests are to measure the behavior studied (Roebianto, Savitri, Aulia, Suciyana, & Mubarokah, 2023). Rovinelli and Hambleton (1977) created the item-objective congruence index, which is used as a tool in the testing preparation process, especially for assessing content validity during the item generation phase. This index is mostly useful for evaluating one-dimensional things or items that are intended to evaluate predefined skill combinations. Three professionals will be enlisted to assess the content validity of the lesson plans, English speaking skill test and the questionnaire through the utilization of the Item-objective Congruence (IOC) approach. The Item-objective Congruence (IOC) score ranges from -1 to +1, with interpretations as follows:

1) +1: Item aligns clearly with the stated objectives.;

2) 0: Item's alignment with objectives is unclear;

3) -1: Item does not align with the objectives.

The evaluation outcomes suggest that the values of IOC score fall within the range of 0.67 to 1.00. This leads to the conclusion that the item is deemed appropriate for utilization, as noted by Turner and Carlson (2003). Should the value fall below 0.67, it is regarded as ambiguous, necessitating a revision or potential removal.

The IOC scores for the lesson plans, English speaking skill test, and questionnaire all fell within 0.67 and 1.00, according to the data from Appendices D, F, and I. The results indicated that all three instruments passed the content validity test, signifying that the items are considered appropriate for use in the research.

3.4.2 Reliability

Reliability concerns the constancy and dependability of a measurement. A test or tool displaying strong reliability signifies that respondents' scores will remain consistent across repeated assessments, barring any external influences impacting the scores (Segal & Coolidge, 2018). Within this study, the reliability of the English speaking skill test was assessed by using KR-20, while Cronbach's Alpha was employed to gauge the questionnaire's reliability. An additional set of 30 students from the same level was administered both the test and questionnaire by the researcher.

3.4.2.1 The Reliability of the English speaking skill Test

The reliability of the English speaking skill test will be assessed using the Kuder-Richardson formula (KR-20). The Kuder-Richardson Formula 20 (KR-20) evaluates the overall reliability of a test. It indicates whether the exam effectively differentiated between students who comprehended the subject matter and those who didn't. The KR-20 typically varies from 0.0 to +1.0, but can dip below 0.0 with smaller groups. A higher KR-20 value, closer to +1.0, signifies greater exam

reliability, as the questions consistently distinguish between high and low-performing students (University of Arkansas for Medical Sciences, 2023). KR-20 generates a correlation value ranging from 0, where a substantial KR-20 coefficient (e.g., >0.90) signifies test homogeneity. Typically, a KR-20 value of 0.8 is the threshold for acceptable reliability. A value below 0.8 might suggest exam unreliability. In this study, if the value of KR-20 is equal to or higher than 0.80, the test item will be considered reliable. If the value is below 0.80, the item will be adjusted or removed (El-Uri & Malas, 2013).

To evaluate the reliability of the test items, 30 students who were not included in the original sample were given the tests. The results of these tests were then subjected to KR-20 analysis, producing a reliability coefficient of 0.95, indicating statistical acceptability. Therefore, the test items were deemed reliable and suitable for inclusion in the data collection process.

3.4.2.2 The Reliability of Students' learning satisfaction questionnaire

Cronbach's alpha, introduced by Cronbach in 1951, serves as an indicator to evaluate the internal consistency and reliability of a collection of scale or test items. The Cronbach's Alpha value will be used in this study to test the reliability of the items in questionnaire using to evaluate the students' learning satisfaction, and its criteria about internal consistency was shown in the contents below:

Table 3.2 Cronbach's Alpha Rule of Thumb

Cronbach's Alpha Rule of Thumb	Internal Consistency
α≥0.9	Excellent
0.8≤α < 0.9	Good
0.7≤α < 0.8	Acceptable
0.6≤α < 0.7	Questionable
0.5≤α < 0.6	Poor
α < 0.5	Unacceptable

Source: Taber, 2018

Increased scores correlate with enhanced reliability. Items scoring below 0.7 would be considered unreliable and subsequently eliminated. All items in the questionnaire would make Cronbach's Alpha for testing.

The questionnaire items would be presented to an independent group of 30 students not included in the original sample. Subsequently, their responses would be analyzed using Cronbach's Alpha. The reliability test results, as indicated in Appendix J for the items, surpassed 0.7, demonstrating statistically satisfactory levels of reliability.

3.5 Data Collection Procedures

3.5.1 Ethical Approvement

To conduct the study within the educational institution, the researcher obtained official authorization from the Guangxi Sports School in the Guangxi Zhuang Autonomous Region of China. Given the age range of participants (10-14 years), ethical protocols were followed, necessitating consent not only from school authorities but also from parents or guardians.

3.5.2 Confidentiality

The researcher ensured the confidentiality of all students' personal data and questionnaire responses throughout the study. Additionally, once the study concluded, all data were meticulously erased in adherence to ethical research practices.

3.6 Data Analysis

According to Adams (2008), data analysis involves employing statistical techniques to depict data, assess hypotheses, and compute measures of impact. The research will use paired samples t-test for analyzing the data to find out the significant improvement in speaking skill pre and post the utilization of Mobile-Assisted

Language Learning (MALL) via the "Liulishuo" application. Moreover, the researcher used frequency, mean, and standard deviation to find out the level of students' learning satisfaction when they experience MALL through Liulishuo application.

3.6.1 English speaking skill Test

To evaluate the English speaking skill test, the researcher employed t-test. T-test is a statistical analysis employed to contrast the means of two distinct groups, making it a prominent and extensively applied method for examining hypotheses in numerous research (Yim, Nahm, Han, & Park, 2010). Based on the research design, the researcher selected paired sample t-test to determine the English speaking skill improvement of sample group (one grade 7 class). In this research, SPSS 24.0 software was applied by the researcher to facilitate the examination of the t-test through a comprehensive analysis involving frequency, means, and standard deviation, thereby enabling a robust comparative statistical assessment.

3.6.2 Questionnaire Survey

For analysis of the questionnaire, the researcher used SPSS software as well to analyze the data collected from the respondents. All of the responses were underwent a meticulous analysis utilizing statistical descriptors, including frequency, mean, and standard deviation, to derive comprehensive insights.

Table 3.3 The Range of Mean Score Interpretation

Mean Score Range	Students' Perceptions Level
4.21 – 5.00	Highest
3.41 – 4.20	High
2.61 – 3.40	Moderate
1.81 – 2.60	Low
1.00 – 1.80	Lowest

Source: Abu-Baker, Abu-Zaid, Alsawalqah, & Al-Shamayleh, 2019

The data were interpreted by comparing it with the specific criteria according to Abu-Baker et al. (2002) as shown in table 3.3, the details are as follows:

Mean score between 4.21 – 5.00 indicated the highest level of satisfaction with the utilization of Mobile-Assisted Language Learning (MALL) via the "Liulishuo" application.

Mean score between 3.41 – 4.20 indicated a high level of satisfaction with the utilization of Mobile-Assisted Language Learning (MALL) via the "Liulishuo" application.

Mean score between 2.61 – 3.40 indicated a moderate level of satisfaction with the utilization of Mobile-Assisted Language Learning (MALL) via the "Liulishuo" application.

Mean score between 1.81 – 2.60 indicated a low level of satisfaction with the utilization of Mobile-Assisted Language Learning (MALL) via the "Liulishuo" application.

Mean score between 1.00 – 1.80 indicated the lowest level of satisfaction with the utilization of Mobile-Assisted Language Learning (MALL) via the "Liulishuo" application.

CHAPTER 4

RESULT

In this paper, quasi-experimental design was applied to the use of mobile-assisted language learning through Liulishuo for English speaking skill of grade 7 Chinese students and to investigate the students' satisfaction with the use of mobile-assisted language learning through Liulishuo in English speaking skill learning. The results were obtained from pre-test, post-test, and questionnaire. The results of the data are presented in the following order:

        4.1 Analysis of English Speaking Pre-test and Post-test Scores

        4.2 Analysis of Questionnaires

4.1 Analysis of English Speaking Pre-test and Post-test Scores

This section presented the findings of the first research question, which examined how Chinese students in grade 7 may raise their English speaking scores by utilizing the use of MALL through Liulishuo. The results were derived from the pretest and post-test. In order to avoid prejudice, the assessment is conducted by two assessors, as stated in the official English book for Human Education published in 2013. The paired sample t-test was used to compare the sample group's pretest and post-test results. The mean value, standard deviation, and inferential statistics were compared using $P < 0.5$ as the significant criterion.

4.1.1 Demographic data of the students

The dataset revealed a gender imbalance among the respondents, with 63% being male and 37% female. The age distribution indicated a concentration of participants in the 12-year-old category, comprising 47% of the sample, while the 11 years old or younger

group accounted for 33%. On the other hand, the older age groups, specifically 13 years old and 14 years old or older, had lower representations at 17% and 3%, respectively. When it came to the use of English-speaking learning apps, only 7% of the respondents had taken a course using such apps, while the overwhelming majority (93%) had not engaged in this form of language learning. This suggested a potential gap or lack of interest in utilizing technology-based language learning tools within the surveyed population.

In summary, the data highlighted demographic patterns and a low adoption rate of English-speaking learning apps among the surveyed individuals. The insights gathered from this analysis can be valuable for educators, policymakers, or app developers aiming to tailor language learning interventions to the specific needs and preferences of the surveyed population, especially focusing on encouraging wider adoption of technology-driven language learning solutions.

Table 4.1 Demographic Data

Demographic Categories	Frequency	Percentage (%)
Gender		
Male	19	63.00
Female	11	37.00
Age		
11 years old or younger	10	33.00
12 years old	14	47.00
13 years old	5	17.00
14 years old or older	1	3.00
Have you ever taken a course using an app to learn English speaking?		
Yes	2	7.00
No	28	93.00
Total	30	100

4.1.2 Comparison of Pre-test and Post-test Scores of the Sample Group

Table 4.2 illustrated the pre-test and post-test scores for the sample group. The maximum pre-test score was 14 out of 20, and the minimum was 2. Post-test scores notably increased, with one participant achieving the highest score of 17 out of 20, a 5-point improvement compared to the pre-test, and four participants achieving the lowest score of 6 out of 20. One student displayed the most improvement, gaining 7 points. All 30 students exhibited significant or slight improvement on the post-test, with score differences ranging from 0 to 7 points. Table 4.2 presents the scores, score increases, and percentage differences between the pre-test and post-test for the participants.

Table 4.2 Pre-test & Post-test scores of the sample group

Student ID	Pre-test Scores (Full Score=20)	Post-test Scores (Full Score=20)	Score Difference	% of Score Difference
1	3	8	5	25.00%
2	5	9	4	20.00%
3	6	7	1	5.00%
4	7	10	3	15.00%
5	8	12	4	20.00%
6	11	12	1	5.00%
7	12	17	5	25.00%
8	2	6	4	20.00%
9	5	7	2	10.00%
10	4	8	4	20.00%
11	4	7	3	15.00%
12	7	11	4	20.00%
13	8	15	7	35.00%
14	9	11	2	10.00%
15	10	16	6	30.00%
16	11	13	2	10.00%

Table 4.2 Pre-test & Post-test scores of the sample group (Cont.)

Student ID	Pre-test Scores (Full Score=20)	Post-test Scores (Full Score=20)	Score Difference	% of Score Difference
17	3	6	3	15.00%
18	4	6	2	10.00%
19	6	10	4	20.00%
20	7	9	2	10.00%
21	8	8	0	0.00%
22	2	6	4	20.00%
23	14	16	2	10.00%
24	5	10	5	25.00%
25	4	10	6	30.00%
26	6	11	5	25.00%
27	7	12	5	25.00%
28	7	10	3	15.00%
29	8	9	1	5.00%
30	9	15	6	30.00%
Mean	6.73	10.23	3.5	17.50%

Analyzing the raw scores from the pre-test and post-test revealed that, across nearly thirty people, the post-test scores were greater than the pre-test. The scores from the pre-test and post-test were compared in the manner described below:

4.1.3 Pretest and Posttest Comparison

Figure 4.1 below depicted the participants' pre-test and post-test scores. The orange line represents the pre-test scores, while the blue line represented the post-test scores. It is evident from the figure that 29 out of 30 students showed an increase in their post-test scores, indicating that the use of MALL through Liulishuo was helpful in improving students' English speaking skill. For Student ID 21, there is no improvement from the pre-test to the post-test, as indicated by a score difference of 0

and a percentage of score difference of 0.00%. The limited progress observed was attributed to the student's involvement with the district sports team, necessitating frequent leave requests for training sessions.
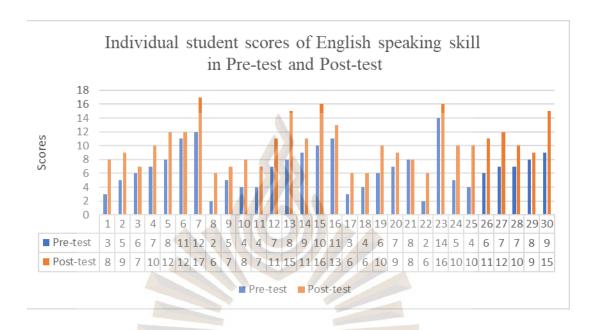
Figure 4.1 Individual student scores of English speaking skill
in pre-test and post-test

Additionally, Figure 4.2 illustrated the mean scores for the pre-test and post-test, which were 6.73 and 10.23, respectively. The post-test mean score surpassed that of the pre-test. The orange bar representing the post-test scores confirmed a 3.5-point increase compared to the blue bar, which represented the pre-test scores. Consequently, it can be concluded that almost every participant showed improvement in the post-test, resulting in higher scores. Hence, it can be said that almost each participant made progress in the post-test and got a better score.
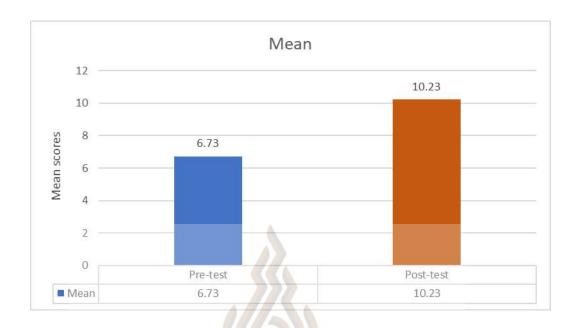
Figure 4.2 Comparison of pre-test and post-test mean of English speaking skill

4.1.4 Analysis of Paired Sample T-test

Table 4.3 displayed the paired samples statistics for the pre-test and post-test. The pretest yielded a mean of 6.73 (SD = 2.98194) and the post-test yielded a mean of 10.23 (SD = 3.21294), both with a sample size of 30. The increase in the mean score from 6.73 in the pre-test to 10.23 in the post-test suggested a notable improvement in English speaking skill after the use of MALL through "Liulishuo" application.

Table 4.3 Paired Samples Statistics

Paired Samples Statistics				
		Mean	n	Std. Deviation	Std. Error Mean
Pair 1	Pre-test	6.73	30	2.98194	.54442
	Post-test	10.23	30	3.21294	.58660

As indicated in Table 4.3, the paired samples t-test demonstrated a notable disparity between pre-test and post-test scores, $t(29) = -10.91$, $p < .001$. The average difference was -3.500 (95% CI [-4.16, -2.84]), with a standard error of .321. The p-value (.01) from the paired samples t-test indicated that the improvement in English

speaking skill after the use of MALL through "Liulishuo" application was statistically significant.

Table 4.4 Paired Samples T-Test

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Pre-test – post-test	-3.500	1.75676	.321	-4.16	-2.84	-10.91	29	.000

4.2 Questionnaire Analysis

To collect quantitative data and assess students' sentiments regarding the utilization of MALL through Liulishuo in English-speaking classes, a five-point Likert scale was employed, with 1 indicating strong disagreement and 5 indicating strong agreement. The survey comprised 15 items, categorized into three parts: Part A – interest & motivation, Part B - engagement, and Part C - efficacy of mobile-assisted language learning through Liulishuo. All 30 participants (N=30) were administered the questionnaires. Descriptive statistics, including mean and standard deviation, were employed for survey result analysis. The mean scores ranged from highest at 4.21 to 5.00, high at 3.41 to 4.20, medium at 2.61 to 3.40, low at 1.81 to 2.60, and lowest at 1.00 to 1.80.

Table 4.5 below delineated the mean scores and standard deviations concerning students' contentment with Part A, denoted as interest & motivation. The paramount mean ($\overline{x}$) score of 4.46 was achieved for "The content of our English speaking lessons captivates my interest" (Item 2), residing within the highest echelon of the five-point Likert scale, signifying the "Highest" level. Despite the relatively diminished mean score for Item 5 ($\overline{x}$= 3.90), the explication of the mean score

elucidates that students' perspectives on Part A of the questionnaire, specifically interest & motivation, persisted at the highest level ($\bar{x}$=4.23).

Table 4.5 Mean and Standard Deviation: Part A (N=30)

	Part A- Interest & Motivation	Mean	SD	Interpretation
1	The process of learning English speaking using the Liulishuo app is fun.	4.43	0.62	highest
2	The content of our English speaking lessons captivates my interest.	4.46	0.68	highest
3	I feel a strong personal drive to improve my English speaking skill after each lesson.	4.43	0.67	highest
4	The lessons inspire me to practice and engage with English speaking outside of class.	3.93	0.82	high
5	English lessons motivate me to explore more about the English language.	3.90	0.71	high
	Average	4.23	0.70	Highest

Table 4.6, presented below, delineated the mean and standard deviation of students' evaluations for Part B, specifically focusing on Engagement. Analyzing the data, both Item 8 and Item 9, "I think the English speaking practice activities based on Liulishuo app make me fully engaged" and "The feedback I receive on my English speaking helps me improve and encourages me to do better" attained the highest mean score of 4.40. Conversely, Item 10, "The activities in our English speaking lessons capture my interest and actively engage me in the learning process" garnered the lowest mean score of 3.83. Nevertheless, with an average score of 4.17, it categorically aligns within the spectrum of "High" average scores.

Table 4.6 Mean and Standard Deviation: Part B (N=30)

	Part B- Engagement	Mean	SD	Interpretation
6	I frequently find opportunities to interact and participate during English speaking lessons based on Liulishuo app.	4.23	0.86	highest
7	The materials provided by teacher based on Liulishuo app are relevant and helpful to my English speaking learning goals.	3.97	0.72	high
8	I think the English speaking practice activities based on Liulishuo app make me fully engaged.	4.40	0.67	highest
9	The feedback I receive on my English speaking helps me improve and encourages me to do better.	4.40	0.67	highest
10	The activities in our English speaking lessons capture my interest and actively engage me in the learning process.	3.83	0.70	high
	Average	4.17	0.72	high

Table 4.7 below delineates the mean scores and standard deviations encapsulating students' responses to Part C, examining the Efficacy of Mobile-Assisted Language Learning through Liulishuo. A majority of students asserted that the incorporation of MALL via Liulishuo significantly contributed to the improvement of their English speaking proficiency. The mean score of 4.11 was at the "High" level. Item 15, "Using Liulishuo app can improve my pronunciation of English speaking" had the highest mean score of 4.47. Item 14, "Using Liulishuo app can improve my fluency of English speaking" had the lowest mean score of 3.93. Despite this, the overall mean score persisted at the high level, affirming that the use of MALL through Liulishuo positively influenced students' attainment of English speaking skill.

Table 4.7 Mean and Standard Deviation: Part C (N=30)

	Part C- Efficacy of Situational Teaching Method	Mean	SD	Interpretation
11	Using Liulishuo app can improve my vocabulary of English speaking.	4.07	0.83	high
12	Using Liulishuo app can improve my grammar of English speaking.	3.90	0.81	high
13	Using Liulishuo app can improve my comprehend of English speaking.	4.17	0.75	high
14	Using Liulishuo app can improve my fluency of English speaking.	3.93	0.69	high
15	Using Liulishuo app can improve my pronunciation of English speaking.	4.47	0.73	highest
	Average	4.11	0.76	high
	Overall Mean & SD for all 15 items	4.17	0.73	high

Ultimately, as previously stipulated, within the three parts, Part A attained the pinnacle mean score, registering at 4.23, coupled with a standard deviation of 0.70. Conversely, Parts B and C exhibited comparatively diminished mean scores, averaging at 4.17 and 4.11, respectively, with corresponding standard deviations of 0.72 and 0.76. Notwithstanding, in light of the comprehensive mean of 4.17, the researcher confidently inferred that students harbored a favorable satisfaction regarding the use of MALL through Liulishuo in their acquisition of English speaking skill.

CHAPTER 5

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

This chapter presented the summary of the study, and the details were presented in the following order:

5.1 Conclusion

5.2 Discussion

5.1 Conclusion

The two research objectives were stated for this study:

1) To compare grade 7 Chinese students' English speaking skill before and after the use of MALL through "Liulishuo" application.

2) To examine Grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application.

The research employed a quantitative methodology, encompassing a pretest, posttest, and questionnaire administered to grade 7 Chinese students in Guangxi Zhuang Autonomous Region, China. The findings led to the following conclusions:

5.1.1 The Result of Pretest and Posttest Data Analysis

The initial aim of this study was to assess the English speaking level of grade 7 Chinese students in Guangxi Zhuang Autonomous Region after the use of MALL through Liulishuo. Subsequently, a paired sample T-test was employed to analyze the disparities in learning outcomes between the pretest and posttest scores of the sample group.

Through the observation and analysis of the use of MALL through Liulishuo, the researcher found that its use offered the following advantages in the English speaking skill learning of grade 7 Chinese students: providing a convenient learning method. The use of MALL through Liulishuo provided students with the convenience of learning anytime and anywhere, allowing them to utilize fragmented time for learning. It increased learning motivation. The interactivity and entertainment of the use of MALL through Liulishuo enhanced students' motivation to learn. Students learned through voice interaction, games, and other methods, which were more attractive and can stimulate students' interest in learning. It promoted autonomous learning. The use of MALL through Liulishuo allowed students to engage in more autonomous learning, selecting learning content and methods based on their own progress and interests. It expanded learning resources. The use of MALL through Liulishuo provided students with richer learning resources, including various English oral dubbing videos, audio, etc., enriching students' learning content and methods. It provided immediate feedback. The use of MALL through Liulishuo promptly provided students with feedback on their learning achievements, helping them to promptly identify and correct errors, thereby improving learning effectiveness.

1) The statistical analysis of the paired sample t-test for academic performance indicated that the mean score of the post-test (10.23) surpassed that of the pre-test (6.73) by an average difference of (3.50). The standard deviations for the pre-test and post-test were (2.98) and (3.21), respectively. The higher mean score of the post-test suggested a positive impact of using MALL through Liulishuo on improving students' academic achievement in English speaking skill.

2) The pre-test yielded a highest score of 14 and a lowest score of 2, while the post-test resulted in a highest score of 17 and a lowest score of 6. Consequently, the difference between the pre-test and post-test scores led to the highest score on the post-test being 3 points higher than the score on the pre-test. Similarly, the lowest score in the post-test was 4 points higher than the lowest score in the pre-test.

3) 8 out of 30 participants scored 12 or above out of a total of 30 on the post-test, while only 2 students achieved a score of 12 or higher out of 30 on the pre-test.

4) Of all 30 students, 29 participants scored higher in the post-test than in the pre-test. The improvement ranged from 0 to 7 points.

The preceding quantitative data analysis clearly demonstrated an improvement in the students' post-test results. Therefore, the findings of this study unequivocally suggested that the use of MALL through Liulishuo could significantly enhance the English speaking skill of grade 7 Chinese students in Guangxi Zhuang Autonomous Region, China.

5.1.2 The Results of Students' Satisfaction

For the research objective 2, the study aimed to evaluate the effectiveness of Mobile-Assisted Language Learning (MALL) through the Liulishuo app in English-speaking classes, utilizing a quantitative approach. The survey, administered to 30 participants, employed a five-point Likert scale across 15 items categorized into three parts: interest & motivation, engagement, and efficacy of MALL through Liulishuo.

The results indicated that students expressed high levels of satisfaction in all three dimensions. Notably, Part A, focusing on interest & motivation, stood out with a mean score of 4.23, reaching the highest level. Part B, assessing engagement, demonstrated an average mean score of 4.17, categorically considered as high level. Part C, examining the efficacy of MALL through Liulishuo, also exhibited a high level with mean score of 4.11.

While interest & motivation garnered the highest mean score, it was crucial to recognize that both engagement and efficacy received commendable ratings, reinforcing the overall positive impact of MALL through Liulishuo on students' English speaking skill. The specific aspects of interest & motivation, engagement, and efficacy were individually explored, with students attributing high scores to various statements within each category.

In summary, the comprehensive mean score of 4.17 across all dimensions indicated a favorable satisfaction level among students regarding the integration of MALL through Liulishuo in their English speaking classes. These findings suggested that the utilization of Liulishuo positively influenced students' interest, engagement, and efficacy in learning English speaking skill.

5.2 Discussion

As previously mentioned, the study yielded two significant findings. The first discovery indicated that the use of MALL through Liulishuo enhanced the English speaking skill of grade 7 Chinese students in Zhuang Autonomous Region, China. The second observation was that grade 7 Chinese students showed positive satisfaction with learning English speaking skill with the use of MALL through Liulishuo. The following discussion described these findings in detail and explained how they addressed the research questions presented in this study.

5.2.1 To compare grade 7 Chinese students' English speaking skill before and after the use of MALL through "Liulishuo" application.

5.2.2 To examine Grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application.

5.2.1 Students' Speaking English speaking skill Test

Firstly, this study aimed to examine the use of MALL through "Liulishuo" application on grade 7 Chinese students' speaking skill improvement. The first research question which was concerned with the difference of speaking English speaking skill test (pretest and posttest) who benefited from phones and Liulishuo after the treatment showed that the participants outperformed in the posttest.

The results of the students' English speaking skill test (pre-test and post-test) unequivocally demonstrated that the use of MALL through Liulishuo application significantly enhanced their English speaking skill, with the mean score increasing from 6.73 in the pre-test to 10.23 in the post-test. This finding was supported by the study of

Saragih, Sipayung, and Manurung, (2023), which examined the effects of the CAKE and ELSA Speak applications on the English pronunciation abilities of eighth-grade students at SMP Negeri 25 Medan. Employing a quantitative approach, they revealed a noteworthy improvement in students' pronunciation skill following the use of the ELSA Speak application. Similarly, Zou, Guan, Shao, and Chen (2023) concluded with his experimental study on 70 Chinese students that the post-test scores demonstrated a statistical advantage for the experimental group (EG) over the control group (CG) (EG: M = 6.58, SD = 1.44; CG: M = 5.84, SD = 1.07). This discrepancy was deemed statistically significant, suggesting that the EG, involved in interactive activities, attained superior learning outcomes in speaking skill compared to the CG. The study of Zhang (2019) also supported that Liulishuo provides a wealth of emotionally engaging educational materials, cultivating student interest and encouraging self-directed learning, thereby contributing to the enhancement of students English speaking skill.

In conclusion, the study's findings were both motivating and reassuring, with 30 out of 29 participants scoring higher in the pre-test than in the post-test. The mean score increased from 6.73 in the pre-test to 10.23 in the post-test out of a total score of 20. This indicated a mean score difference of 3.50 between the pre-test and post-test. Notably, one student (No. 13) scored 8 in the pre-test and 15 in the post-test, showing a substantial improvement of 7 points. These results clearly demonstrated that the use of MALL through the Liulishuo application generally improved students' speaking skill.

5.2.2 Students' Satisfaction

The second research objective of this study was to examine Grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application.

The quantitative data collected through the Likert scale questionnaire survey offered valuable insights into students' sentiments regarding the integration of Mobile-Assisted Language Learning (MALL) through Liulishuo in English speaking classes.

The questionnaire survey of students' learning satisfaction, including three distinct parts – interest & motivation, engagement, and efficacy – provided a comprehensive view of the overall satisfaction and impact of this teaching method.

Part A: Interest & Motivation

The results from Part A indicated that students generally exhibited a high level of interest and motivation when using Liulishuo. The highest mean score of 4.46 for "The content of our English speaking lessons captivates my interest" suggested that the instructional content was successfully sustains students' interest. Additionally, the overall average mean of 4.23 reaffirmed that students find the learning process enjoyable and are personally driven to enhance their English speaking skill. This finding was consistent with Almadhady et al. (2021), who found that students appreciated the varied and interesting topics offered by the English application they used to improve their English speaking skill, emphasizing the app's convenience in fostering a motivating and interesting learning environment. The finding also aligned with the research conducted by Arvanitis and Krystalli (2021), wherein they asserted that incorporating mobile devices into foreign language teaching/learning amplifies motivation. This is achieved through the provision of non-traditional teaching methods facilitated by technology familiar to students. According to Vigneshwari and Phil (2022), using MALL can improve students' motivation and lessen nervousness when speaking English. Pebiana and Desty (2023) also suggested that Mobile-Assisted Language Learning (MALL) had the potential to assist teachers in delivering learning materials and boost students' motivation to learn English.

Part B: Engagement

Part B investigated the students' engagement level with MALL through Liulishuo. The mean scores, particularly for Items 8 and 9, revealed that the English speaking practice activities and the feedback received were successful in fully engaging students. Despite a slightly lower mean score for Item 7 with 3.97, the average score of 4.17 indicated a high level of engagement overall. This suggested that students actively participated in the learning process facilitated by MALL through Liulishuo, contributing positively to their English speaking skill improvement. This

was consistent with research by Ok and Ratliffe (2018), which showed improvements in student engagement along with more time spent on academic material when using mobile devices for learning. The finding was also in line with Xu (2020), who suggested that incorporating English-learning applications can enhance the learning experience for English as a Foreign Language (EFL) learners. This improvement was notably reflected in the development of positive attitudes and an increased willingness to participate in Mobile-Assisted Language Learning (MALL) activities. Liu (2022) further substantiated the results that the Liulishuo's online community stimulates engagement by fostering group interactions, motivating task completion, and cultivating a healthy sense of competition.

Part C: Efficacy of MALL through Liulishuo

Part C explored the efficacy of MALL through Liulishuo in improving various aspects of English speaking skill. The findings demonstrated that students perceive significant improvements in their vocabulary, grammar, comprehension, pronunciation, and fluency when using Liulishuo. The highest mean score of 4.47 for Item 15 ("Using Liulishuo app can improve my pronunciation of English speaking") indicated a particularly strong positive impact on improving students' English pronunciation. The finding aligned with the conclusions of Yousef, Abduh, and Abduh (2019), supporting the notion that Mobile-Assisted Language Learning (MALL) technology significantly improves the pronunciation skills of English as a Foreign Language (EFL) learners. The overall average mean of 4.11 suggested that students acknowledge the effectiveness of MALL through Liulishuo in improving their English speaking proficiency. The obtained result aligned with the findings of Tonekaboni (2019), reinforcing the notion that the Mobile-Assisted Language Learning (MALL) through English learning application proved effective in improving English speaking skill of students. The observed efficacy was supported by positive outcomes in enhancing knowledge quality, improving language proficiency, and boosting confidence in applying English speaking skill in everyday life. Moreover, the study of Sun (2017) also provided support for the efficacy of using Mobile-Assisted Language Learning (MALL) through a mobile application in improving students' English-speaking skill. The findings suggested that the use of the

mobile-based application had a positive impact on various dimensions of English-speaking skill, including accuracy, fluency, and pronunciation. In general, student feedback, as elucidated by Wang's (2023) study, indicated that the efficacy of Mobile-Assisted Language Learning (MALL) significantly contributes to students' satisfaction in the language acquisition process. The students' assessment of the effectiveness of instructional methods used by educators in English speaking skill development directly correlates with their overall satisfaction.

In summary, the findings from the questionnaire survey of students' learning satisfaction towards the use of MALL through "Liulishuo" application collectively affirmed that students harbor a favorable satisfaction regarding the use of MALL through Liulishuo in their English speaking classes. The results underscored the potential of this technological approach in not only capturing students' interest and motivation but also in fostering engagement and enhancing the efficacy of English speaking learning.

5.2.3 Recommendations for Implementation

1) To expand Application Usage to Other Schools:

It is successful for using MALL through "Liulishuo" application to improve grade 7 Chinese students' English speaking skill. Hence, the researcher suggests to share the successful experience of using MALL through the "Liulishuo" app with other schools, especially in the context of English speaking classes for grade 7 students. Establish a system for knowledge sharing to encourage more schools to adopt this effective learning tool.

2) To provide Training for English Teachers:

To develop specialized training programs to assist English teachers in becoming familiar with and making effective use of the "Liulishuo" app. Ensure that teachers are well-equipped to guide students in using the application to enhance their speaking skill.

3) To regularly Monitor Student Progress:

To implement regular oral proficiency assessments to monitor students' progress in speaking skill after they using MALL through the "Liulishuo"

app or others app. Through ongoing assessments, adjust teaching strategies as needed to ensure continuous improvement in students' oral communication abilities.

5.2.4 Recommendations for Future Research

The following recommendations for future research were made in light of the study's limitations.

1) Given the short duration of the course activities completed by the participants in this study, it is suggested that conduct a longitudinal study to examine the sustained impact of using MALL through the "Liulishuo" app on students' speaking skill. Understanding the long-term effects of technology-assisted language learning can provide valuable insights into the durability of skill improvement over time.

2) Since the results of this study are derived from quantitative data. The future researchers may consider conducting qualitative research to delve deeper into the experiences of students using the "Liulishuo" app or other applications. Qualitative analysis, employing methods such as interviews or focus group discussions, can unveil nuanced aspects related to student engagement, motivation, and challenges. This approach provides valuable context to complement the quantitative findings.

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APPENDICES

APPENDIX A

LETTER OF APPROVAL

Certificate of Approval

Guangxi Sports School, Administrative Department

Subject: Approval to collect data for M. Ed thesis

Dear Sir/Madam,

I'm currently enrolled in the master of education curriculum and instruction at Rangsit University, Thailand. I'm researching": THE USE OF MOBILE-ASSISTED LANGUAGE LEARNING THROUGH "LIULISHUO" FOR ENGLISH SPEAKING SKILL OF GRADE 7 CHINESE STUDENTS". A student is required to participate in this research. The data was collected using pre-tests and post-tests, questionnaires, etc. As a result, I would like to request permission from the administration to collect data at this school, where the identities and names of the students are confidential.

Yours sincerely

Ying Xue, Student

Rangsit University, Thailand.

It would be appreciated if Ying Xue could collect data from this school since it is necessary for the study's analysis. There are several conditions that 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 Guangxi Sports School.

Signature _____李宇_____ Date 2023年9月20日

APPENDIX B

PARTICIPANTS' INFORMATION SHEET

Participant's Legal Guardian Information Sheet

Dear Participant:

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

Research School: Guangxi Sports School, China

Name: Ying Xue Student ID:6509502

Studying University: Survadhep Teachers College of Rangsit University, Thailand

Research Title:

THE USE OF MOBILE-ASSITED LANGUAGE LEARNING THROUGH "LIULISHUO" FOR ENGLISH SPEAKING SKILL OF GRADE 7 CHINESE STUDENTS

1. What is the purpose of the study?

To compare grade 7 Chinese student's achievement in English speaking skill using Liulishuo with the use Mobile-Assisted Language Learning. To investigate grade 7 Chinese student's learning satisfaction towards using Liulishuo with the use of Mobile-Assisted Language Learning in English speaking skill.

2. Expected results

The use of Mobile-Assisted Language Learning through "Liulishuo" will help to improve the English speaking skill of Grade 7 Chinese students. Grade 7 Chinese

students will show satisfaction with the use of Mobile Assisted Language Learning through "Liulishuo" in English speaking skill..

3. The number of participants in the study will be a class.

4.Research procedures

The researchers will collect the data in four steps. First, participants will undergo a pre-test. Second, participants will receive a English speaking skill course guided by a Integration of Liulishuo app and the use of Mobile Assisted Language Learning. Third, a post-test is conducted at the end of all courses. Fourthly, through the use of Mobile Assisted Language Learning through "Liulishuo" in English speaking skill, a questionnaire survey was conducted on the subjects to understand their satisfaction with the English speaking skill results.

5. Duration

The research period will be 4 weeks, 4 sessions,

There is no possible risk in her research.

The school has asked students who have volunteered to participate to inform their parents and has 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(Ying Xue), who is enrolled at Rangsit University in Thailand to research her thesis.

Signature: 李宁   Date: 2023年9月20日
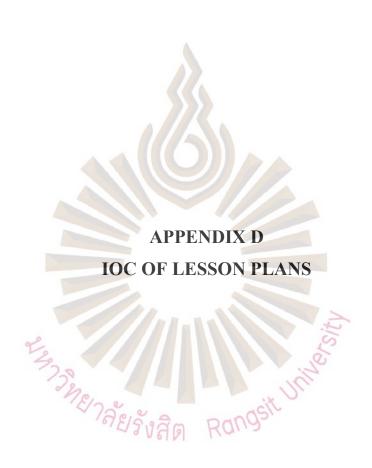
Guangxi Sports School, Administration

APPENDIX C

EXPERTS WHO VALIDATED RESEARCH INSTRUMENTS

	Name	Position/Title	Institution
1	Wanchun Lin	English teacher/Associate professor	Nanning Foreign Language School, China
2	Luzi Lin	English Interpreter/Doctor	Srinakharinwirot University China Office
3	Qiong Huang	English teacher/ Associate professor	Nanning Foreign Language 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

Lesson Plan 1 (Session:1&2)
Subject: English Speaking
Topic: Learn speaking via English speaking application
Grade: 7
Class Strengths: 30 students
Time: 90 minutes (45 minutes/1session)
Students' background knowledge: Students possess a basic level of English proficiency, including simple listening, speaking, reading, and writing skills
Teaching and learning strategy: Teachers guide students to participate in English speaking skill learning through the MALL.
Teaching and learning materials: Mobile learning devices, Liulishuo application, PPT, paper, pen and pencil.
Lesson Objectives: After the course, students will be able to：
1. Understand the features and functions of Liulishuo.
2. Proficiently use Liulishuo for speaking practice.
3. Master some simple words and sentences learned through practice.

Session 1 (45 minutes)		
Stage & Duration	Teacher's activities	Student' activities
Greeting and Checking (5 minutes)	1. Greet student. 2. Verify students' attendance. 3. Instruct the students to verify the condition of their device's network connection and headset before class.	1. Greet teacher. 2. Respond during attendance checking. 3. Check the devices.

Lesson Plan 1 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
Warm-up Activity (5 minutes)	4. Discussion: What mobile apps do you use daily? Why? 5. Lead the discussion towards English speaking learning apps and ask if anyone has experience using them.	4. Answer the question. 5. Get a brief overview of English speaking apps and answer the question.
Introduction to Liulishuo (10 minutes)	6. Introduction to Liulishuo. Brief overview of the app and its features. Give a brief introduction to the AI-driven personalized learning.	6. Know what is Liulishuo app and its features.
Initial assessment with Liulishuo (15 minutes)	7. Guide students to log in the Liulishuo app on their mobile devices and give them simple instructions on how to use it. 8. Guide students to complete individual English proficiency assessment in 5 minutes.	7. Log in Liulishuo app and learn basic operation. 8. Complete the assessment.
Feedback and student grouping (10 minutes)	9. Ask students to share their initial assessment scores. 10. Categorize students into groups based on their assessment scores, aiming to ensure that each group is at a similar proficiency level.	9. Log in Liulishuo app and learn basic operation. 10. Complete the task of grouping.

Lesson Plan 1 (Cont.)

Session 2 (45 minutes)		
Stage & Duration	Teacher's activities	Student' activities
Greeting and Checking (5 minutes)	1. Welcome to the students. 2. Check students' attendance. 3. Instruct the students to verify the condition of their device's network connection and headset before class.	1. Greet teacher. 2. Respond during attendance checking. 3. Check the devices.
Warm-up Activity (5 minutes)	4. Discussion: What did you learn in the last class and do you remember your level? 5. Randomly select several students to recall the speaking words and sentences they learned during the assessment in the last class.	4. Make the discussion. 5. Answer the question.
Introduction to practice pattern (20 minutes)	6. Guide students to understand how to select speaking practices on Liulishuo app, including vocabulary, dialogue and dubbing practice. 7. Group work. The students listen to each other's recording and give their suggestions for improvement, and the teacher guides the process.	6. Learn how to practice autonomously under the guidance of a teacher. 7. Students will take turns playing their recordings from Liulishuo to group members. Group members will provide constructive feedback based on what they heard.

Lesson Plan 1 (Cont.)

Session 2 (45 minutes)		
Stage & Duration	Teacher's activities	Student' activities
Group discussion (10 minutes)	8. Discuss the experience of using Liulishuo for speaking practice. 9. Reflect on the benefits and challenges of using Liulishuo for English speaking practice.	8. Complete the discussion. 9. Complete the reflection.
Homework Assignment (5 minutes)	10. Assign students to prepare for the content on Liulishuo for next class.	

Lesson Plan 2

Lesson Plan 2 (Session:3&4)
Subject: English Speaking
Topic: Engaging English Speaking Practice with Liulishuo: Making Friends and Dubbing
Grade: 7
Class Strengths: 30 students
Time: 90 minutes (45 minutes/1session)
Students' background knowledge: Students possess a basic level of English proficiency, including simple listening, speaking, reading, and writing skills
Teaching and learning strategy: Teachers guide students to participate in English speaking skill learning through the MALL.
Teaching and learning materials: Mobile learning devices, Liulishuo application, PPT, paper, pen and pencil.
Lesson Objectives: After the course, students will be able to:
4. Use the vocabulary and sentences they learn in the app to improve their speaking skill.
5. Correct the deficiency of grammar in speaking.
6. Understand spoken language in the app and make responses.

Lesson plan 2 (Cont.)

Session 3 (45 minutes)		
Stage & Duration	Teacher's activities	Student' activities
Greeting and Checking (5 minutes)	1. Greet student. 2. Verify students' attendance and let them check the devices.	1. Greet teacher. 2. Respond and check the devices during attendance checking.
Warm-up Activity (5 minutes)	3. Randomly Select two students to demonstrate how to use Liulishuo app for English speaking practices.	3. Students present how to use Liulishuo app for English speaking practices.
Lesson development (30 minutes)	Session 1: Making new friends 4. Pre-speaking stage Teacher guide students to learn vocabulary and sentences about making new friends on Liulishuo app. In this process, the teacher will assist the use of PPT and lead the students to study together, explaining key vocabulary and grammar points. 	4. Learn the vocabulary and sentences in Liulishuo app, and try to imitate correct pronunciation and learn grammar in this part. 5. Do the practice and try to design a short dialogue on Making new friends.

Lesson plan 2 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
	5. While-speaking stage Pair up students in the groups. Students will practice introducing themselves and starting a basic conversation using the vocabulary and sentences they learned. Encourage them to make a short dialogue, where they try to befriend their partner. (15 minutes)	5. Do the practice and try to design a short dialogue on Making new friends.
Lesson development (25 minutes)	6. Post-speaking stage Select a few groups of students to come to the podium to present the oral dialogue. Allow other students to comment and reflect. Teacher's role: To acknowledge the content of the dialogue and the progress made in speaking, and to make comments or suggestions about, for example, pronunciation, grammar or vocabulary. (8 minutes)	6. Do the presentation. Make the comments and reflections Correct deficiencies in the learning process.
Closure (5 minutes)	7. Summarize the main points, vocabulary and sentences of the lesson. Praise students for their participation and effort throughout the lesson. Preview the topic of the next lesson to stimulate their interest and ensure continuity of learning.	

Lesson plan 2 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
	Session 4 (45 minutes)	
Greeting and Checking (5 minutes)	1. Greet student. 2. Verify students' attendance and let them check the devices.	1. Greet teacher. 2. Respond and check the devices during attendance checking.
Warm-up Activity (5 minutes)	3. Use interactive activities like quizzes or games (e.g., Bingo, Pictionary, or a Quizizz game) based on the vocabulary and sentences learned during the last session.	3. Review the vocabulary and sentence through the quizzes or games.
Lesson development (30 minutes)	Session 2: English speaking dubbing practice 1 4. Pre-speaking stage The teacher plays an English dubbing video, explaining what English dubbing is and related points. The teacher guides the students to open the Liulishuo app and enter the English dubbing interface, and familiarize students with the dubbing process. (7 minutes)	4. The students watch an English dubbing video and get familiar with the operation process of Liulishuo app dubbing interface.

Lesson plan 2 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
	5. While-speaking stage Activity 1: Divide students into their groups. Assign each group a different video clip or let them choose by their own in Liulishuo app. Teacher's role: Provide feedback on pronunciation, timing, and voice modulation after each group presents their dubbed video. (15 minutes)	5. Choose the dubbing video for dubbing recording, and help each other with the students in the same group in the process.
	6. Post-speaking stage Ask students what aspects of dubbing they found simple and difficult. Talk about typical problems and how to solve them. Teacher's role: using the students' reflections as a guide, add more information while emphasizing areas that could use better and praising achievements. (8 minutes)	6. Reflect on the dubbing process and summarize the shortcomings in the learning process.
Closure (5 minutes)	7. Recap the main points covered, emphasizing the importance of practice in dubbing. Acknowledge the students' effort and enthusiasm throughout the lesson. Briefly introduce the topic of the next session to keep students engaged and excited.	

Lesson Plan 3 (Session:5&6)

Subject: English Speaking

Topic: Engaging English Speaking Practice with Liulishuo: Talking about the weather and Dubbing

Grade: 7

Class Strengths: 30 students

Time: 90 minutes (45 minutes/1session)

Students' background knowledge: Students possess a basic level of English proficiency, including simple listening, speaking, reading, and writing skills

Teaching and learning strategy: Teachers guide students to participate in English speaking skill learning through the MALL.

Teaching and learning materials: Mobile learning devices, Liulishuo application, PPT, paper, pen and pencil.

Lesson Objectives: After the course, students will be able to:

7. Improve their oral expression and pronunciation skills.

8. Engage confidently in conversation about the English speaking topic.

9. Provide and receive feedback from peers through discussion and reflective practice experiences to continuously improve their speaking skill.

Session 5 (45 minutes)		
Stage & Duration	Teacher's activities	Student' activities
Greeting and Checking (5 minutes)	1. Greet student. 2. Verify students' attendance.	1. Greet teacher. 2. Respond during attendance checking.

Lesson plan 3 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
Warm-up Activity (5 minutes)	3. Play a video clip that students have not seen before. Students will spontaneously dub the video in real-time.	3. Recall what they learned in the last session.
Lesson development (30 minutes)	Session 3: Talking about the weather 4. Pre-speaking stage Teacher guide students to learn vocabulary and sentences about topic of talking about the weather on Liulishuo app. In this process, the teacher will assist the use of PPT and lead the students to study together, explaining key vocabulary and grammar points. (5 minutes)	4. Learn the vocabulary and sentences in Liulishuo app, and try to imitate correct pronunciation and learn grammar in this part.

Lesson plan 3 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
	5. While-speaking stage Activity 1: Pair Weather Conversations Pair up students. Provide them with a few scenarios related to different weather conditions (e.g., a rainy day, a sunny beach day, winter snowfall). Ask students to use the newly learned vocabulary and sentences to discuss the weather in those scenarios. Teacher's Role: monitor conversations, step in when necessary to guide, and correct any mistakes. (15 minutes) 6. Post-speaking stage Ask students to write a short conversation about their favorite or least favorite type of weather, using the vocabulary and sentences they've learned. (10 minutes)	5. Do the practice and try to design a short conversation on Talking about the weather. 6. Write a short conversation about the weather on paper.
Closure (5 minutes)	7. Summarize the main vocabulary and points discussed in the session. Praise students for their active participation and effort. Provide a glimpse into the next session's topic to maintain continuity in learning.	7. Review the vocabulary and points.

Lesson plan 3 (Cont.)

Session 6 (45 minutes)		
Stage & Duration	Teacher's activities	Student' activities
Greeting and Checking (5 minutes)	1. Greet student. 2. Verify students' attendance.	1. Greet teacher. 2. Respond during attendance checking.
Warm-up Activity (5 minutes)	3. Begin with a word relevant to the weather. The following student should utter the initial word that springs to mind in connection with the preceding word. Keep the process going around the classroom. For a lesson on weather – Sun → Hot → Summer → Beach.	3. Review the vocabulary learned in the last lesson to arouse interest in learning.
Lesson development (30 minutes)	Session 2: English speaking dubbing practice 2 4. Pre-speaking stage Recall the previous dubbing session. Have a quick Q&A session about what they remember from the last dubbing lesson. The teacher showed the students' excellent dubbing works. (7 minutes)	4. The students watch an English dubbing video and get familiar with the operation process of Liulishuo app dubbing interface.

Lesson plan 3 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
Lesson development (30 minutes)	5. While-speaking stage Activity 1: Guide students to pick clips and dub them in pairs. Let partners give each other simple feedback. Select some pairs volunteer to share with the class. Teacher's role: Provide feedback on pronunciation, timing, and voice modulation after each pair presents their dubbed video.	5. Students form pairs and choose a short video clip from Liulishuo app. Ideally, the clip should have two distinguishable characters. After the initial dubbing, students exchange identities, meaning they will now dub the character their partner previously voiced.

Lesson plan 3 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
	Activity 2: With the original pairing, guide students to exchange identities with each other, and then perform English dubbing again. Teacher's role: let students pay attention to how their partner approached the character and try to bring their own interpretation to it. (15 minutes) 6. Post-speaking stage Highlight a few notable dubs from social media (either pre-selected or nominated by students). Play them for the class to enjoy. Teacher's Role: Give praise and encourage a positive, supportive environment. (8 minutes)	6. Watch notable dubs and learn how to improve their speaking skill while watching.
Closure (5 minutes)	7. Summarize the main points in this session. Praise students for their active participation and effort. 8. Introduce the content of the two parts of the next lesson, English dubbing presentation and English speaking dialogue presentation.	

Lesson Plan 4

Lesson Plan 4 (Session:7&8)
Subject: English Speaking
Topic: Dubbing Competition and Self-Created Dialogues
Grade: 7
Class Strengths: 30 students
Time: 90 minutes (45 minutes/1session)
Students' background knowledge: Students possess a basic level of English proficiency, including simple listening, speaking, reading, and writing skills
Teaching and learning strategy: Teachers guide students to participate in English speaking skill learning through the MALL.
Teaching and learning materials: Mobile learning devices, Liulishuo application, PPT, paper, pen and pencil.
Lesson Objectives: After the course, students will be able to :
10. Improve their oral expression, pronunciation skills and fluency.
11. Master the ability of oral English conversation design.
12. Improve speaking skill through presentations and feedback from classmates and teachers.

Session 7 (45 minutes)		
Stage & Duration	Teacher's activities	Student' activities
Greeting and Checking (2 minutes)	1. Greet student. 2. Instruct the students to verify the condition of their device's network connection and headset before class.	1. Greet teacher. 2. Check the devices.

Lesson plan 4 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
Leading in (5 minutes)	3. Introduce the dubbing presentation competition. 4. Briefly recap what they've learned about dubbing in previous sessions. Lay out the basic rules and structure of the competition.	3. Listen to the teacher. 4. Follow the teacher to review the previous dubbing exercises and listen to the competition rules.
Lesson development (30 minutes)	5. Clip selection. Encourage a variety of genres and styles of the clips to ensure a diverse competition. Teacher's role: assist with group formation, ensure fair selection of clips, and address any questions. (5 minutes) 6. Preparation time Encourage students to focus on clarity, emotion, and synchronization. Teacher's role: circulate among groups, offering guidance, answering questions, and ensuring all students are engaged. (10 minutes)	5. Using the Liulishuo app, each group chooses a video clip they want to dub. 6. Each group rehearses their chosen clip, deciding who will voice which character and practicing their lines.

Lesson plan 4 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
Lesson development (30 minutes)	7. Dubbing Competition Teacher guides each group to come to the front and perform their dubbing live for the class using the Liulishuo app set up on the computer. After each performance, the teacher can provide brief feedback. Teacher's role: act as the moderator, introduce each group, manage time, provide feedback and give the scores based on a simple rubric (consider clarity, synchronization, emotion, etc.). (12 minutes) 8. Awarding Combined with the teacher's score (75%), group evaluation (25%), to announce the top three groups. (3 minutes)	7. One by one, each group comes to the front and performs their dubbing live for the class using the Liulishuo app set up on the computer. The groups evaluate the scores of each other.
Closure (5 minutes)	9. Congratulate all students for their participation and hard work. Emphasize the value of teamwork, practice, and stepping out of one's comfort zone. Encourage them to continue practicing their English speaking skill through dubbing.	

Lesson plan 4 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
Session 8 (45 minutes)		
Greeting and Checking (2 minutes)	1. Greet student. 2. Instruct the students to verify the condition of their device's network connection and headset before class.	1. Greet teacher. 2. Check the devices.
Lead in (3 minutes)	3. Briefly introduce the purpose of the activity: "Today, we will be designing and performing our self-created dialogues in pairs". Provide a simple example dialogue for clarity.	
Lesson development (35 minutes)	4. Topic Selection Teacher ensure each pair has chosen a topic, offering suggestions and assistance. (7 minutes) 5. Designing Dialogues Teacher guides students to consider the beginning, middle, and end of their dialogues, ensuring coherence. Circulate and provide feedback, ensuring the content of the dialogue is appropriate. (10 minutes)	4. Each pair selects a topic they'd like to discuss, such as "favorite seasons" or "how to spend the weekend". 5. Based on chosen topic, each pair crafts a dialogue.

Lesson plan 4 (Cont.)

Stage & Duration	Teacher's activities	Student' activities
Lesson development (30 minutes)	6. Presentation Host the presentation session. Teacher acts as a reviewer, give feedback after performances, and ensure each pair gets an opportunity to perform. (15 minutes)	6. Each pair performs their designed dialogue for the class.
Closure (5 minutes)	7. Feedback and Conclusion Highlight the commendable performances during the activity. Encourage students to continue practicing their oral skills outside of class using English speaking app. Provide positive remarks on students' efforts, offer a conclusion (8 minutes).	

APPENDIX F

IOC OF ENGLISH SPEAKING SKILL TEST

Item No	Title	Expert 1	Expert 2	Expert 3	Average	congruence
1	Vocabulary test	+1	+1	+1	+1	Congruent
2	Speaking Proficiency test	+1	+1	+1	+1	Congruent

APPENDIX G

KR-20 ANALYSIS FOR THE ENGLISH SPEAKING SKILL TEST

KR-20 analysis for the English speaking skill Test

Students' score

Student	Item1	Item2	Total
1	7	5	12
2	7	6	13
3	5	5	10
4	5	4	9
5	4	3	7
6	6	5	11
7	5	4	9
8	6	5	11
9	5	4	9
10	5	4	9
11	5	3	8
12	6	5	11
13	8	5	13
14	7	5	12
15	6	5	11
16	3	2	5
17	4	3	7
18	5	3	8
19	4	4	8
20	3	5	8
21	8	6	14
22	6	6	12
23	6	5	11
24	7	6	13
25	5	4	9
26	4	3	7
27	8	7	15
28	4	3	7
29	4	2	6
30	3	2	5

Mean $(\bar{X})$ = 7.3333

Variance (s^2) = 4.4444

For Item1:

Note: Since the passing grade in China is set at exceeding 60% of the total score, obtaining a score of 6 or more in the items is counted as "correct", while scores below 6 are counted as "incorrect".

For Item1:

Number of students who answered Item1 correctly = 13

Proportion of students who answered Item1 correctly = 13 / 30 = 0.4333

For Item2:

Number of students who answered Item2 correctly = 5

Proportion of students who answered Item2 correctly = 5 / 30 = 0.1667

The KR-20 formula

$$KR-20 = \frac{30}{29}\left(1 - \frac{(0.4333*0.5667+0.1667*0.8333)}{4.4444}\right)$$

$$KR-20 = \frac{30}{29}\left(1 - \frac{(0.246+0.1389)}{4.4444}\right)$$

$$KR-20 = \frac{30}{29}\left(1 - \frac{0.3849}{4.4444}\right)$$

$$KR-20 = \frac{30}{29}\left(1 - 0.0866\right)$$

$$KR-20 \approx \frac{30}{29}*0.9134 \approx 0.9469$$

The KR-20 reliability coefficient for this test is approximately 0.9469. This high value suggests that the test exhibits a very high level of internal consistency, indicating that Item1 and Item2 are measuring the students' speaking skill reliably.

APPENDIX H

ENGLISH SPEAKING SKILL TEST

Speaking English speaking skill Test
(PRE-TEST & POST-TEST)

Subject: English speaking   Total scores: 20

Student name: ....   Student ID: ....

For the speaking proficiency test, students will be given two questions to speak about. Student will be asked to talk on the same topic for both the pre-test and post- test.

1. Speak aloud the following words

friend hobby singing dancing swimming reading drawing travelling fishing holiday weather hot cold sunny rainy windy cloudy snowy today yesterday tomorrow

2. Three topics are given, choose one to speak on. Two minutes for preparation, two minutes for presentation.

Topics:

My best friend
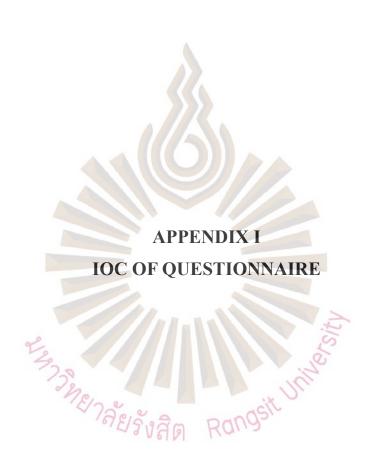
My favorite weather

My hobby

Criteria	5 (Excellent)	4 (Very Good)	3 (Average)	2 (Below Average)	1 (Poor)
Fluency	Effortless, continuous speech with natural pauses	Minor hesitations, but maintains flow; self-corrects when needed	Occasional lapses in fluency; evident effort in forming responses	Slow, with noticeable hesitations and pauses; struggles to maintain flow	Speech is consistently halting; significant difficulty maintaining flow
Vocabulary	Uses rich and varied vocabulary, engaging and captivating	Good range; occasionally uses advanced expressions, engaging response	Adequate vocabulary for basic communica-tion; lacks variety	Limited vocabulary; struggles with word choice and usage	Very limited vocabulary; frequent use of inappropriate or incorrect words

Criteria	5 (Excellent)	4 (Very Good)	3 (Average)	2 (Below Average)	1 (Poor)
Grammar	Consistently correct grammar; self-corrects seamlessly when necessary	Infrequent minor grammatical errors; errors do not hinder understanding	Noticeable errors but generally comprehensible; may occasionally self-correct	Many glaring errors that often interrupt comprehend-sion	Grammar is consistently poor, making comprehension challenging
Pronunciation	Clear, native-like pronunciation with minimal errors	Generally correct pronunciation with occasional errors; easily understood	Occasional mispronunciations that might require some clarification	Regular pronuncial-tion errors that can impede understanding	Majority of speech has pronunciation errors, making comprehension difficult
Comprehend	Fully understands questions; responds thoughtfully and accurately	Understands main ideas with minor misunderstand-dings; responds effectively	Grasps basic points but might occasionally misunderstand nuances	Often struggles to comprehend; frequent requests for clarification	Regularly misunderstands or misinterprets the questions; responses often off-target

APPENDIX I
IOC OF QUESTIONNAIRE

Item Objective Congruence for questionnaire

Rate +1, if the item clearly matches the stated objectives.

Rate 0, if the item is unclear or unsure whether the measures meet the stated objectives.

Rate -1, if the item does not clearly match the stated objectives.

Sl No.	Item Test No.	Expert 1	Expert 2	Expert 3	Average	Congruence
1.	The process of learning English speaking using the Liulishuo app is fun.	+1	+1	+1	+1	Congruent
2.	The content of our English speaking lessons captivates my interest.	+1	+1	+1	+1	Congruent
3.	I feel a strong personal drive to improve my English speaking skill after each lesson.	+1	+1	+1	+1	Congruent
4.	The lessons inspire me to practice and engage with English speaking outside of class.	+1	+1	+1	+1	Congruent
5.	English lessons motivate me to explore more about the English language.	+1	+1	+1	+1	Congruent
6.	I frequently find opportunities to interact and participate during English speaking	+1	0	+1	0.67	Congruent

Sl No.	Item Test No.	Expert 1	Expert 2	Expert 3	Average	Congruence
	lessons based on Liulishuo app.					
7.	The materials provided by teacher based on Liulishuo app are relevant and helpful to my English speaking learning goals.	+1	+1	+1	+1	Congruent
8.	I think the English speaking practice activities based on Liulishuo app make me fully engaged.	+1	+1	+1	+1	Congruent
9.	The feedback I receive on my English speaking helps me improve and encourages me to do better.	+1	+1	+1	+1	Congruent
10.	The activities in our English speaking lessons capture my interest and actively engage me in the learning process.	+1	+1	+1	+1	Congruent
11.	I frequently find opportunities to interact and participate during English speaking lessons based on Liulishuo app.	+1	+1	+1	0.67	Congruent

Sl No.	Item Test No.	Expert 1	Expert 2	Expert 3	Average	Congruence
12.	The materials provided by teacher based on Liulishuo app are relevant and helpful to my English speaking learning goals.	0	+1	+1	0.67	Congruent
13.	I think the English speaking practice activities based on Liulishuo app make me fully engaged.	+1	+1	+1	+1	Congruent
14.	Using Liulishuo app can improve my fluency of English speaking.	+1	+1	+1	+1	Congruent
15.	Using Liulishuo app can improve my pronunciation of English speaking.	+1	+1	+1	+1	Congruent

APPENDIX J

THE RELIABILITY TEST RESULTS OF QUESTIONNAIRE

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
.841	15

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Cronbach's Alpha if Item Deleted
A1	58.17	37.247	.820
A2	58.30	35.390	.823
A3	58.20	38.166	.829
A4	58.30	36.907	.820
A5	58.97	44.102	.866
B1	58.87	36.189	.822
B2	58.67	38.161	.828
B3	58.67	36.989	.818
B4	58.73	34.892	.809
B5	58.63	36.999	.817
C1	58.80	41.200	.846
C2	58.63	42.999	.850
C3	58.43	41.564	.842
C4	58.43	40.944	.837
C5	58.00	41.655	.839

APPENDIX K

QUESTIONNAIRE

Questionnaire

Dear students,

This questionnaire is a part of the thesis of Master of Education in Curriculum and Instruction, Rangsit University. This research title is *The Use of Mobile-Assisted Language Learning through Liulishuo for English Speaking Skill of Grade 7 Chinese Students*. Researcher would use the results of the analysis to test the student's satisfaction on learning English speaking through Liulishuo app. This can provide some new understanding and ideas for English speaking teaching and learning for the students in the future.

Best Regards,

Ms Ying Xue

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

Part 1 General information of the respondents

1. Please specify your gender

A. Male

B. Female

2. Please specify your age

A. 11 years old or younger

B. 12 years old

C. 13 years old

D. 14 years old or older

3. Have you ever taken a course using an app to learn English speaking?

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 described in the table below.

Scale: Strongly Agree **(SA)-**5 Agree**(A)-** 4 Neutral **(N)-**3 Disagree**(D)-**2 Strongly Disagree **(SD)-**1

Sl No.	Items	SA 5	A 4	N 3	DA 2	SD 1
PART A: INTEREST & MOTIVATION						
1	The process of learning English speaking using the Liulishuo app is fun.					
2	The content of our English speaking lessons captivates my interest.					
3	I feel a strong personal drive to improve my English speaking skill after each lesson.					
4	The lessons inspire me to practice and engage with English speaking outside of class.					
5	English lessons motivate me to explore more about the English language.					
PART B: ENGAGEMENT						
6	I frequently find opportunities to interact and participate during English speaking lessons based on Liulishuo app.					
7	The materials provided by teacher based on Liulishuo app are relevant and helpful to my English speaking learning goals.					
8	I think the English speaking practice activities based on Liulishuo app make me fully engaged.					

Sl No.	Items	SA 5	A 4	N 3	DA 2	SD 1
9	The feedback I receive on my English speaking helps me improve and encourages me to do better.					
10	The activities in our English speaking lessons capture my interest and actively engage me in the learning process.					
PART C: EFFICACY OF MOBILE-ASSISTED LANGUAGE LEARNING THROUGH LIULISHUO						
11	Using Liulishuo app can improve my vocabulary of English speaking.					
12	Using Liulishuo app can improve my grammar of English speaking.					
13	Using Liulishuo app can improve my comprehend of English speaking.					
14	Using Liulishuo app can improve my fluency of English speaking.					
15	Using Liulishuo app can improve my pronunciation of English speaking.					

BIOGRAPHY

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