

The Use of Mobile-Assisted Language Learning through Liulishuo for English Speaking Skill of Grade 7 Chinese Students

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Abstract

In recent years, with the widespread adoption and continual advancement of mobile technology, mobile-assisted language learning (MALL) has garnered significant attention as an innovative pedagogical tool, particularly in China. This study aimed to examine the impact of mobile-assisted language learning (MALL) through the “Liulishuo” application on grade 7 Chinese students’ English-speaking skills and satisfaction level. Using a clustered random sampling method, 30 grade 7 students in the Guangxi Zhuang Autonomous Region, China, were selected as a sample group. Eight lesson plans, English-speaking tests (pretest and posttest), and a 5-point Likert questionnaire were applied, and the data were analyzed using descriptive statistics and a paired sample t-test. The result demonstrated that there was a significant difference between the pretest score ($\bar{x} = 6.73$) and the posttest one ($\bar{x} = 10.23$). In addition, the students rated all items of the questionnaire from high to high, showing that they were satisfied with the use of this application for learning English speaking skills. However, during the interviews, this study also found that MALL, through the “Liulishuo” application, suffers from a lack of content richness and tends to overlook the importance of face-to-face English communication between teachers and students. The findings of the study have offered valuable insight into teaching and learning English speaking skills, and this may contribute to another effective way for English language teachers in China and other stakeholders.

Keywords: Mobile Assisted Language Learning; Liulishuo Application; English Speaking Skill; Students’ Learning Satisfaction

Introduction

English is globally recognized as the lingua franca, necessitating proficiency for international communication (Niyozova, 2020). China's rising global stature amplifies the importance of English proficiency (Ma et al., 2016). Mastery of speaking, a crucial communication skill (Baron, 2020), is emphasized in modern English teaching standards in China (Ministry of Education of the People's Republic of China, 2022). Despite increasing recognition of the importance of spoken English in Chinese education, educators face significant challenges in effectively teaching English speaking skill. These challenges include suboptimal instructional outcomes, student fatigue, and the persistent influence of the examination-oriented system (Anggraini, 2022; Qi et al., 2021). Traditional teaching models and varying teacher proficiency also impede effective instruction (Hu, 2022). To address these issues and bridge the gap in achieving communication-focused language goals, English teachers must explore new teaching methods and modes (Gao, 2023).

Mobile-Assisted Language Learning (MALL) presents a promising solution, leveraging technology to enhance English speaking learning (Chang & Hsu, 2011). Prior research highlighted MALL's effectiveness in improving English speaking skill (Darmawati, 2018; Rajendran & Yunus, 2021), but further exploration is warranted, particularly in junior high education (Zhou, 2021). "Liulishuo", an AI-powered language learning app, features Automated Speech Recognition for self-guided learning, diverse dialogue content, and personalized oral classes (Yang et al., 2019). Its popularity and adherence to constructivist theory make it an effective tool for enhancing English speaking proficiency (Qi et al., 2021; Xian, 2021; Zhang, 2019).

While mobile-assisted language learning (MALL) is generally recognized for its potential to enhance English proficiency, skepticism persists. Studies by Qi et al. (2021), and Xu (2020) suggested limited progress in English speaking abilities among students using MALL, while Li (2023) raises concerns about classroom distractions and unpredictable outcomes. Further exploration in MALL is warranted to improve English speaking skill. Additionally, research primarily focuses on higher education, neglecting the critical junior high school phase, particularly in China, where there's a research gap in utilizing mobile devices for enhancing English speaking skill (Zhou, 2021).

The purpose of this study; therefore, was to examine the impact of the use of MALL through the "Liulishuo" application, on Chinese junior high students' speaking skill and their

learning satisfaction. Through this research, insights into effective language education methods and innovative tools for student empowerment would be sought.

In conclusion, this study highlights the importance of English speaking in the global environment, particularly in China's educational landscape. It emphasizes the challenges that educators encounter while teaching English speaking skill, as well as the possibilities for unconventional approaches such as Mobile-Assisted Language Learning (MALL), specifically through the "Liulishuo" application, to bridge this gap. This study intends to provide useful insights into effective language education approaches and the role of technology in improving student outcomes by exploring its effects on junior high students' speaking skill and learning satisfaction.

Research objectives

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.

Literature Review

Mobile-Assisted Language Learning (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). Nuraeni et al. (2020) position MALL as a contemporary language education method employing applications or websites to aid students in their learning tasks. The integration of MALL into language education aims to provide a convenient and personalized learning environment, especially for English language learners (Miangah & Nezarat, 2012).

MALL offers several advantages over traditional classroom settings (Nah et al., 2008). It allows continuous access to educational resources, promotes collaborative learning dynamics, and caters to individual learning needs (Klopper et al., 2002). The benefits of MALL include personalized learning frameworks, enhanced motivation, development of communication skills, increased target language usage, real-world relevance, enhanced interaction, and enjoyable learning experiences (Arvanitis & Krystalli, 2021; Burston, 2013; Kukulska-Hulme, 2009). Additionally, MALL's flexibility, cost-effectiveness, and user-friendliness have propelled its

integration into pedagogical practices, particularly in the wake of the COVID–19 pandemic (Sam & Shalini, 2021).

In the context of English–speaking instruction, MALL addresses the challenges of limited exposure to authentic English language environments (Xu, 2020). By leveraging mobile devices, MALL facilitates flexible learning opportunities, promotes collaboration, and provides access to diverse language learning resources (Akkara et al., 2020; Almadhady et al., 2021). Researchers highlight MALL’s role in improving English speaking proficiency by integrating technology into learning activities, reducing anxiety, enhancing comprehension, and promoting accuracy and fluency (Kim, 2017; Li, 2022; Almadhady et al., 2021). Overall, MALL emerges as a powerful tool for enhancing language learning outcomes, particularly in the domain of English speaking instruction, by leveraging the ubiquity and versatility of mobile devices.

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. Successful mastery of the English language hinges on effective speaking skill (Shahini & Shahamirian, 2017), even impacting employment criteria (Boonkit, 2011).

The assessment of English–speaking skill involves various dimensions. Ilham et al. (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 (2003) emphasized accent, grammar, vocabulary, fluency, and comprehension. Considering these factors provides a comprehensive understanding of an individual’s English speaking proficiency. In this study, assessing English speaking skill involves evaluating five key components based on the previous studies, which are grammar, vocabulary, comprehension, pronunciation, and fluency. These

elements collectively provide a comprehensive understanding of an individual's proficiency in spoken English.

Liulishuo Application

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 (Liulishuo, 2023). Utilizing AI technologies like speech recognition and natural language processing, Liulishuo provides real-time assessment and personalized guidance based on users' proficiency levels (Xian, 2021). The app's popularity stems from its rich content, daily reading exercises sourced from prestigious publications, and interactive learning strategies (Liu, 2020). Hasim et al. (2017) asserted that the application of Liulishuo in English speaking instruction addressed the challenges of traditional teaching methods by offering flexible learning opportunities and authentic language experiences.

MALL plays a crucial role in English language learning, impacting not only reading and writing but also listening and speaking. Previous research has provided extensive data and perspectives on MALL. However, through the organization and analysis of this literature, researchers have identified several research gaps.

1. Overall, while most scholars indeed acknowledge the effectiveness of using mobile devices to improve students' English proficiency, there is still some skepticism from some studies. The findings of Qi et al. (2021), and Xu (2020) showed that the speaking abilities of the students did not significantly progress when using MALL. Furthermore, Li (2023) in her study raised concerns about possible distractions in the classroom and the unpredictability of learning outcomes. Therefore, further exploration is needed in the realm of MALL to enhance students' English-speaking skill.

2. Furthermore, the current research focus in this domain predominantly revolves around higher education (e.g., Almadhady et al., 2021; Li, 2022; Xu, 2020), overlooking the pivotal phase of junior high school, which is crucial for nurturing students' language expression and English oral proficiency (Zhou, 2021). 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.

In summary, this study aims to provide valuable insights into the use of Mobile-Assisted Language Learning (MALL) through the Liulishuo application for improving English speaking skill among grade 7 Chinese students based on Constructivism, Situational Language Teaching Theory and Second Language Acquisition theory. By doing so, the study seeks to investigate the effectiveness of using MALL through the “Liulishuo” application to improve students’ English-speaking skill and enrich the research in the field of MALL for enhancing students’ English speaking skill.

Conceptual Framework

This study employed a quantitative research methodology. The researchers constructed the research conceptual framework with the application of MALL via Liulishuo as an independent variable and the students’ English-speaking skill as well as their learning satisfaction as the dependent variables. The details are shown on figure 1 below.

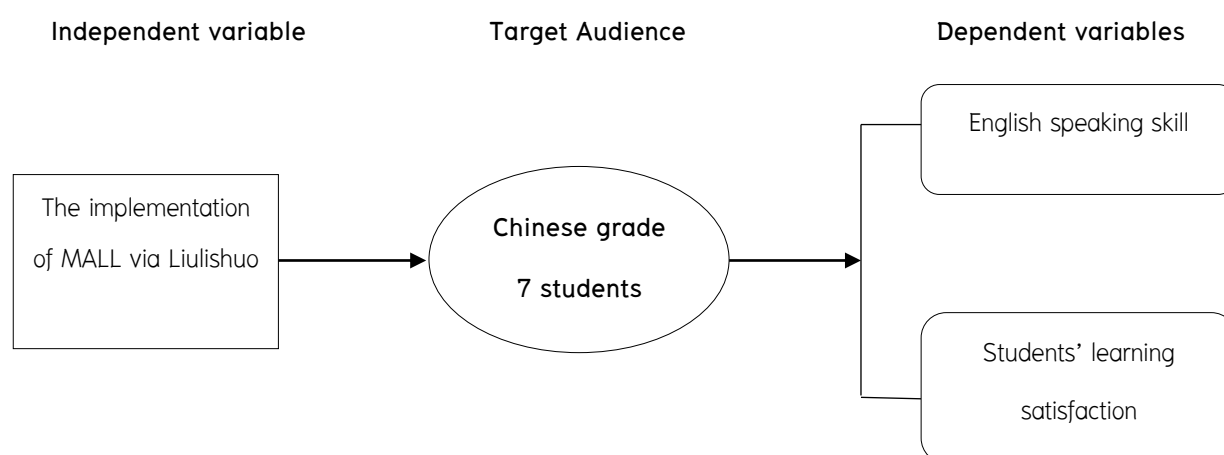


Fig.1 Conceptual Framework

Research Methodology

This research utilized a quantitative approach, the details of which are delineated below:

Research Design

This research was conducted using quantitative method. approach helps to gather numerical data, allowing both population-level generalizations and descriptive insights into particular events (Babbie, 2010; Mujs, 2010). The Figure 3.1 presented whole process of the study design.

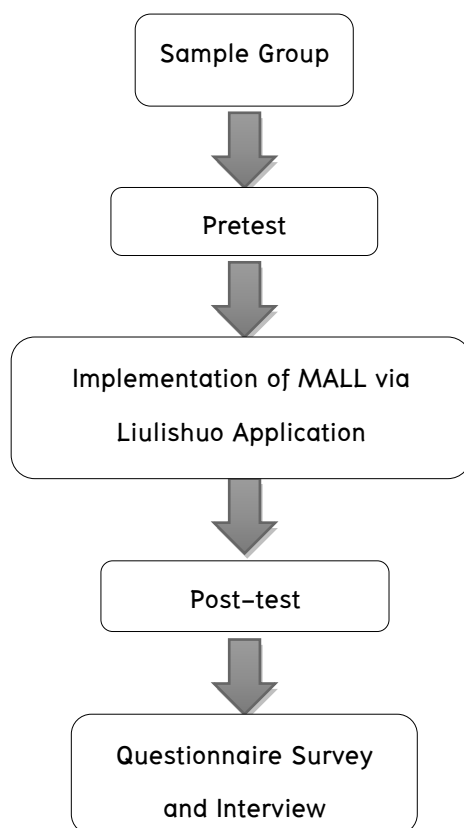


Fig.2 Research Design of the Study

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 ranged from 10 to 14 years old, with diverse genders and varying English proficiency levels.

Sample group

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

Lesson Plans

The researcher implemented four 90-minute lesson plans (1 lesson plan = 2 lessons). The 8 lessons (2 per week) were conducted over a month, focusing on improving grade 7 students' English-speaking skill based on the standards for grade 7 students in China (Ministry of Education of the People's Republic of China, 2022). MALL via the Liulishuo application was utilized during these lessons, covering four topics designed by the researcher. The teaching materials were selected from the Liulishuo application to ensure their suitability for grade 7 students' English-speaking instruction.

Research instruments

According to the research objectives, two quantitative data collection instruments were employed in this study including English speaking skill tests (both pretest and posttest), and a questionnaire for testing student's learning satisfaction.

1) English Speaking Skill Test (Pretest and Posttest)

The English-speaking skill test was used to measure the student's achievement before and after taking the lessons designed by the researchers and to compare their achievements before and after the intervention. The test comprised two sections, including the sections on vocabulary and speaking proficiency. To minimize bias, each participant was evaluated by two raters: the researcher and an English teacher from the same school who conducted the pretest and posttest assessments. The p-test and post-test scores were calculated by averaging the assessments of these two evaluators.

2) Questionnaire

The researchers designed a five-point Likert scale questionnaire with 15 items to examine the students' satisfaction with MALL via the Liulishuo application in English courses, focusing on interest and motivation, engagement, and learning efficacy. Each statement employed the scores, ranging from 5 to 1, representing varying levels of agreement: (5) strongly agree, (4) agree, (3) neutral, (2) disagree, and (1) strongly disagree (Likert, 1932).

3) Interview

In the aftermath of the course, the researchers conducted semi-structured interviews with ten students, probing their experiences and satisfactions regarding the utilization of MALL via the Liulishuo application. Through the interview, researchers can gain comprehensive insights into students' actual usage patterns of the application, its impact on their learning, as well as their perceptions and suggestions regarding the application.

Content Validity

In this research, the researchers employed item-objective congruence index to test the content validity of the research instruments. The lesson plans, English speaking skill tests, and questionnaire all achieved IOC scores between 0.67 and 1.00. These results confirmed that all of the instruments were valid for further use in the data collection process.

Reliability

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. The reliability coefficient for the KR-20 analysis was 0.95, indicating that it was statistically acceptable (El-Uri & Malas, 2013). Thus, the test items were considered reliable for data collection. In addition, the Cronbach's alpha values for all questionnaire items surpassed 0.7, suggesting that the questionnaire exhibited statistically satisfactory reliability.

Data Collection

In the study, the English-Speaking Skill Test was employed to collect student achievement data before and after the lessons. Concurrently, the researchers developed and administered the questionnaire items aiming at gauging student satisfaction with the lessons.

However, at the beginning to the study, the researchers obtained an ethical approval from Guangxi Sports School in China's Guangxi Zhuang Autonomous Region and the consent was obtained from school authorities and the parents or guardians. Confidentiality of personal data and questionnaire responses was maintained, and all data were erased after the study in accordance with ethical research standards.

Data Analysis

Within this research, the improvement in English-speaking skill among a grade 7 class was evaluated using the paired sample t-test, with analysis performed utilizing SPSS 24.0 software.

For the questionnaire survey, SPSS software was also used to analyze the responses, with a focus on statistical descriptors like mean and standard deviation. Results of the students' learning satisfaction were interpreted based on specific criteria designed by Abu-Baker et al. (2019), categorizing satisfaction levels from highest to lowest based on mean scores, as shown in Table 1.

Table 1 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 et al. (2019)

Research Results

Objective 1. To compare grade 7 Chinese students' English-speaking skill before and after the use of MALL through "Liulishuo" application. The results were derived from English Speaking Skill Tests (Pretest and Posttest). The paired sample t-test was used to compare the sample group's pretest and posttest results. The mean value, standard deviation, and inferential statistics were compared using $P < 0.5$ as the significant criterion.

In Table 1, the results of the paired samples t-test for English speaking skill are presented. The pretest means score was 6.73 (SD = 2.98) whereas the posttest one was 10.23 (SD = 3.21). The paired samples t-test revealed a significant difference between the pretest and posttest mean scores, $t(df) = -10.91(29)$, $p < .001$.

Table 2 Descriptive Statistics and Paired Samples t-test for English Speaking Skill

	Pretest	Posttest	t(df)	p
Mean	6.73	10.23	-10.91(29)	<.001
Standard Deviation	2.98	3.21		
Sample Size	30	30		

Table 3 displays the pretest and posttest scores of the sample group. Pre-test scores ranged from 2 to 14 out of 20, while post-test scores showed improvement, with one participant scoring 17 out of 20, a 5-point increase from the pre-test. The lowest post-test score was 6 out of 20, achieved by four participants. The most significant improvement was 7 points. Only one student (No. 21) did not improve in the posttest compared to the pretest due to his absence for the provincial sports team competition. All students except student No. 21 improved in the posttest, with score differences ranging from 0 to 7 points. The details on table 3 presented the scores, score differences with the percentage differences between the pretest and posttest of each participant.

Table 3 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%
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%

Figure 3 depicts the mean scores of the pretest and post-test, which were 6.73 and 10.23, respectively. The posttest mean score exceeded that of the pretest, with the orange bar representing a 3.5-point increase over the blue bar. This indicated the improvement in almost every participant's post-test scores.

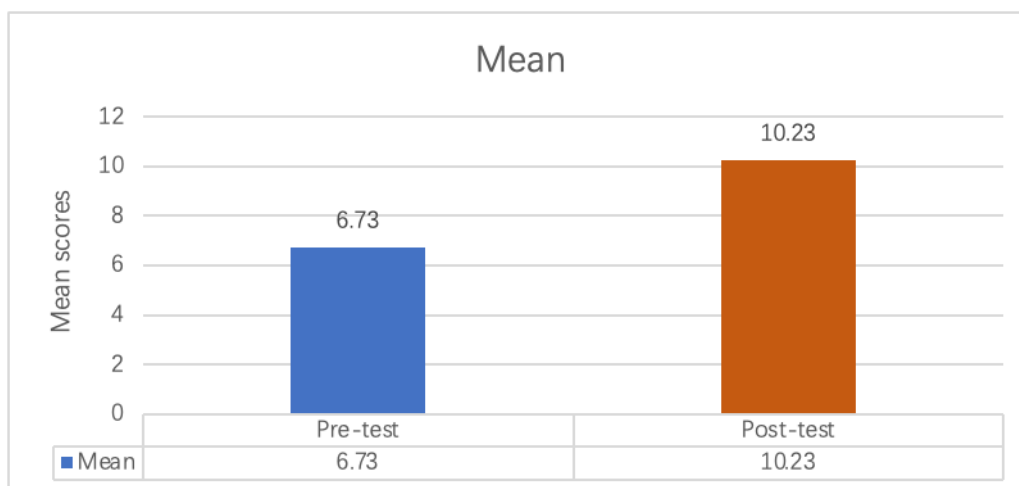


Fig.3 Comparison of pre-test and post-test mean of English speaking skill

Objective 2. To examine grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application. Quantitative data on students' satisfaction towards MALL via Liulishuo in English-speaking classes was collected using a five-point Likert scale.

Table 4 presents the detail of the mean scores and standard deviations for students' satisfaction of Part A (interest & motivation). The highest mean score of 4.46 was for "The content of our English-speaking lessons captivates my interest" (Item 2), indicating the "Highest" level of agreement. Despite a lower mean score for item 5 (3.90), the overall mean score for Part A remained high at 4.23, indicating their strong interest and motivation.

Table 4 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 5 displays the mean and standard deviation of students' evaluations for Part B, focusing on Engagement. Both Item 8 and Item 9, regarding the engagement level with English speaking practice activities and the feedback received, achieved the highest mean score of 4.40. In contrast, Item 10, concerning the activities' ability to capture interest and engage students, received the lowest mean score of 3.83. Despite this, with an average score of 4.17, it falls within the "High" category.

Table 5 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 6 presents mean scores and standard deviations of students' responses to Part C, assessing the Efficacy of Mobile–Assisted Language Learning (MALL) through Liulishuo. The majority of students indicated that MALL via Liulishuo significantly improved their English–speaking skill, with a mean score of 4.11 at the “High” level. Item 15, regarding improvement in pronunciation, had the highest mean score of 4.47, while Item 14, regarding fluency improvement, had the lowest mean score of 3.93. Nevertheless, the overall mean score remained high, indicating that MALL through Liulishuo positively impacted effectively students' English–speaking skill.

Table 6 Mean and Standard Deviation: Part C (N=30)

Part C– Efficacy of Situational Teaching		Mean	SD	Interpretation
	Method			
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

In summary, Part A attained the highest average rating of 4.23, accompanied by a standard deviation of 0.70, suggesting a significant level of interest and motivation among students towards the use of MALL. Parts B and C had slightly lower mean scores of 4.17 and 4.11, respectively, with standard deviations of 0.72 and 0.76. However, the findings continued to demonstrate that students recognized the enhanced engagement and efficacy of utilizing MALL through Liulishuo application. Despite this, the overall mean score of 4.17 suggests that the students were generally satisfied with the use of Mobile-Assisted Language Learning (MALL) through Liulishuo for learning their English-speaking skill.

For the results of semi-structured interviews, some students perceived MALL via Liulishuo application as highly effective in enhancing their speaking skills. They believe that its speech recognition function is accurate and provides timely feedback and suggestions, enabling them to identify areas for improvement. Additionally, they appreciate the presence of tailored speaking exercises, which allow them to focus on specific areas of improvement. These students express their intention to continue using the application to practice speaking during their leisure time. However, some students have also highlighted certain limitations of MALL via Liulishuo. They feel that the current practice exercises lack liveliness and fall short when compared to real conversations. Additionally, they perceive a disparity between practicing speaking with Liulishuo and engaging in face-to-face English communication with teachers. They attribute this gap to the

absence of genuine human interaction in Liulishuo, as it relies on AI technology, which they find sometimes lacks naturalness and emotional engagement.

Discussions

The objectives of the study were 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. The results from the pretest and posttest indicated a significant improvement in students' English-speaking skill following the intervention. Specifically, the students' mean score increased from 6.73 on the pretest to 10.23 on the posttest, showing a remarkable improvement. This finding was in line with the previous research by Saragih et al. (2023) which demonstrated the notable improvement in English pronunciation skills using similar mobile applications. Additionally, Zou et al. (2023) reported a statistical advantage for students engaged in interactive activities using mobile application, suggesting superior learning outcomes. Zhang (2019) further supported the efficacy of MALL in enhancing English speaking skill, attributing it to engaging educational materials and self-directed learning.

The second objective focused on examining grade 7 Chinese students' learning satisfaction towards the use of MALL through "Liulishuo" application. The quantitative analysis revealed the positive sentiments across various aspects of learning satisfaction. Firstly, students exhibited high levels of interest and motivation, as evidenced by the questionnaire responses. The captivating content and enjoyable learning process contributed to students' intrinsic motivation, aligning with findings from Almadhady et al. (2021) and Arvanitis and Krystalli (2021). Moreover, Vigneshwari and Phil (2022) and Pebiana and Desty (2023) highlighted MALL's potential to enhance motivation and alleviate speaking anxiety. Secondly, the students demonstrated active engagement with MALL through Liulishuo. This finding was consistent with Ok and Ratliffe (2018) and Xu (2020), indicating the improvement of the students' engagement and positive attitudes towards MALL activities. Liu (2022) further emphasized the role of Liulishuo on an online community in stimulating engagement and fostering a competitive learning environment. Thirdly, the students perceived the significant improvement in the various aspects of English speaking skill including vocabulary, grammar, comprehension, pronunciation, and fluency. This aligned with the findings from Yousef et al. (2019), Tonekaboni (2019), and Sun (2017), supporting the efficacy of MALL in enhancing language proficiency.

The results of the semi-structured interviews indicate a diversity of experiences and perspectives among students regarding the use of MALL via Liulishuo application. Some students perceive the application as highly effective in improving their English speaking skill, praising its accurate speech recognition, timely feedback, and personalized exercises. These students express their intention to continue utilizing the application for speaking practice during their leisure time. However, other students have raised concerns about the limitations of the application, including exercises lacking liveliness and falling short compared to real conversations. Moreover, they feel a disparity between using Liulishuo for speaking practice and engaging in face-to-face English communication with teachers. They attribute this gap to Liulishuo's reliance on AI technology, which they believe lacks genuine interpersonal interaction and, at times, naturalness and emotional engagement. This finding aligns with Li's (2023) research, which suggests that using Mobile-Assisted Language Learning (MALL) to enhance students' English speaking skill considers a multifaceted approach. While MALL via speaking practice application offer advantages such as accurate speech recognition and personalized feedback, they also face challenges in replicating the natural dynamics of face-to-face communication. Liu (2020) similarly highlights the importance of recognizing the limitations of MALL in English speaking learning. They advocate for supplementing MALL with authentic communication opportunities to enhance speaking skills effectively.

Knowledge from Research

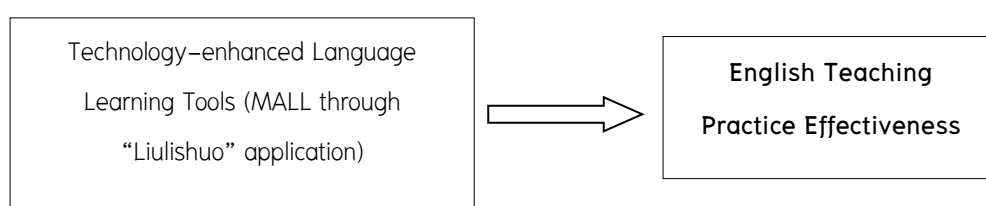


Fig.4 Knowledge from Research

Overall, the study provides valuable insights into the effectiveness of MALL through English learning application in improving English-speaking skills and learning satisfaction among grade 7 Chinese students, providing empirical evidence for the incorporation of technology-enhanced language learning tools into English educational practices.

Conclusion

This study confirmed the effective impact of MALL, particularly through the Liulishuo application, in improving students' English speaking skill and enhancing their level of satisfaction in learning English speaking skill, emphasizing its potential to enhance interest, motivation, engagement, and efficacy in English speaking learning. However, this study also revealed shortcomings in the current state of MALL via English speaking practice applications. Presently, the mobile application suffers from limited content variety and a gap in replicating authentic face-to-face interaction between teachers and students. These realities underscore the need for further refinement and improvement in the future.

In conclusion, this study contributed to the growing body of literature on technology-enhanced language learning by demonstrating the effectiveness of MALL in improving English speaking skill and enhancing students' learning satisfaction. It underscored the importance of integrating innovative pedagogical approaches and digital resources into language education to meet the evolving needs of learners in the 21st century. Finally, this study identified shortcomings in MALL via English speaking practice applications and proposed considerations for improvement.

Suggestions

To implement these findings effectively, it is recommended to expand the utilization of the "Liulishuo" application to other schools, particularly within grade 7 students, and establish mechanisms for sharing successful experiences among educational institutions. Additionally, providing the specialized training for English teachers to proficiently integrate the application into their teaching practices may be crucial for maximizing its effectiveness in enhancing students' speaking skills. However, there is a need to address the lack of face-to-face interaction between teachers and students facilitated by MALL via Liulishuo. At the same time, efforts should be made to augment classroom activities to compensate for the limited richness of Liulishuo content.

For future studies, it is recommended to conduct the longitudinal studies to assess the sustained impact of employing the "Liulishuo" application for Mobile-Assisted Language Learning (MALL) on students' speaking abilities with more participants and a longer period of time. The researchers have expected that the findings of this study may give the benefit to English language teaching and learning in China and other countries with the implementation of technology,

teaching and learning English may become more effective and yield more fruitful outcomes for all stakeholders.

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