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A Study on Mobile Learning in English Speaking of Chinese Junior High School Students

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Abstract: *The study aimed to determine relationships among mobile learning in English speaking, self-efficacy and learning autonomy of Chinese Junior High School students and propose a program to enhance their speaking proficiency level through mobile-assisted language learning. On the basis of the findings, it was verified that the mobile-assisted English speaking learning can improve junior middle school students' self-efficacy and autonomy in their English speaking proficiency. The research used the descriptive quantitative research design that made full use of the convenience of online survey and selected 426 respondents from four different junior high schools, with a relatively even proportion of eight classes. Based on the 426 valid questionnaires, the results showed that there is a highly significant relationship among mobile learning in English speaking, self-efficacy and learning autonomy of Chinese junior high students. The study revealed that students agree on mobile learning in English speaking, mobile learning self-efficacy, and learning autonomy. The mobile-assisted language learning can not only motivate students to study independently, but also develop strong will to improve their speaking proficiency level. Nevertheless, there were no significant differences in responses when grouped according to profile variables; moreover, the correlations of mobile learning, self-efficacy, and autonomy in learning were highly significant. Based on the findings, the English enhancement program was proposed, aiming to combine the usage of attitudes, resources, self-management, self-monitoring and implementation in integrated English speaking learning involving mobile-assisted language learning, self-efficacy, and autonomy in learning. It is hoped that the study may be beneficial to enhance junior high students' mobile learning in English speaking, promote their self-efficacy and improve the effectiveness of autonomy in learning English speaking for Chinese Junior High School students speaking proficiency level.*

Keywords: *Mobile Learning, Self-Efficacy, Autonomy, Mobile-Assisted Learning, English Speaking Learning*

1. Introduction

In the information age of knowledge explosion, cultivating learner' speaking proficiency level combined with mobile learning in English speaking, self-efficacy and learning autonomy is the new standards for talent cultivation in modern society. Teaching students how to achieve the high level is considered to be the basic goal of modern education.

The ultimate goal of learning English speaking is to communicate in a foreign languageThis communicative ability includes the ability to accurately receive and send information. The goal of junior high school English teaching is to cultivate students' comprehensive English application ability, especially their spoken ability, so that they can effectively communicate in English in future learns and social interaction, while enhancing their autonomous learning ability and improving their comprehensive cultural literacy to meet the needs of social development and international communication. Currently [1-3], there is a common phenomenon among junior high school students in China that they are tired of dealing with English exams. Developed the thinking quality of autonomous English learning in the classroom from the perspective of speaking and writing language output, a large number of studies abroad have also pointed out the importance of student learning ability development [4-6]. How to get rid of the embarrassment of "dumb English" in junior high school English teaching has become a question that linguists and English teachers are pondering and exploring[7-8]. Although some progress has been made in this field, spoken English proficiency is still a relatively weak link

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among Chinese junior high school students. The author also verified these influencing factors through a questionnaire analysis of the current situation of spoken English teaching and learning among junior high school students [9-11].

Without a certain amount of self-efficacy training, mobile learning in English speaking is just a fantasy. Most spoken language is blurted out spontaneously during communication with others. In recent years, foreign research on self-efficacy practical knowledge has focused on the cultivation and reconstruction of teachers' practical teaching [12-14]. Under normal circumstances, it is impossible for the speaker to temporarily consult a reference book or dictionary. In order to ensure the smooth progress of communication activities, they must pay attention to the listener and adapt the information spoken to the listener's response. With these reactions, information is gradually regulated, understood, and improved, thereby facilitating the completion of the speaker's task. Therefore, "speaking" is carried out in communicative interaction, a two-way interactive process with interactivity. From the characteristics of spoken language itself, we can see that in the process of learning spoken language, communication with others is indispensable, and there is interactivity[15-18].

From a practical perspective, this study has certain significance for the long-term development of oral English teaching in junior high school. It aims to provide guidance for oral learning practice in junior high school and provide practical opportunities for effectively improving middle school students' mobile learning ability, autonomous efficiency, and autonomous learning ability. As a result, students' overall academic performance will be correspondingly improved. Combining mobile learning of spoken English, this study explores the issues of "wanting to learn" and "how to learn" about self-efficacy, and finds corresponding solutions aimed at improving students' autonomy in learning spoken English[19-21].

2. Objectives of the Study

The study aimed to determine relationships among mobile learning in English speaking, self-efficacy and learning autonomy of Chinese junior high school students and propose a program to enhance their speaking proficiency level through mobile-assisted language learning.

To be specific, it sought to describe the profile of the respondents in terms of sex, major, university, and CET4 score; This study evaluated their oral English mobile learning from the aspects of application status, application situation, functional preference analysis, implementation mode selection, application management, and application attitude. The self-efficacy in mobile learning is divided into five aspects: attitude, resources, self-adjustment and evaluation; From the four aspects of self-management, self-activity, self-participation, self-supervision and self-planning, the English learning autonomy of Chinese junior middle school students is determined. The differences in mobile learning oral English, mobile learning self-efficacy and autonomy were examined and grouped according to profile variables. To establish the significant relationship between mobile oral English learning, self-efficacy and autonomy in mobile oral English learning; According to the research results, the author puts forward the oral English improvement plan for Chinese middle school students.

3. Literature Review

3.1. Mobile Learning in English Speaking

With the continuous development of information and intelligence, the traditional English teaching model has been unable to adapt to the current application oriented independent English teaching reform task. In the context of the micro media era, the new knowledge form and information transmission mode with smart phones as the carrier have changed the traditional learning mode, and the popular mobile teaching mode is the new direction of English teaching reform. As a new and widely used English learning method, many experts and scholars at home and abroad have understood and interpreted mobile learning from different perspectives. In general, mobile learning can be combined with the perspective of emphasizing technology and emphasizing English learning methods.

This view is supported in most current research literature. Most researchers believe that the basic feature of mobile learning is mobility, which is the product of the combination of mobile technology and English learning. From this perspective, mobile learning is seen as learning using mobile devices such as PDAs, laptops, mobile phones, iPods, and PSPs. These devices can be combined with wireless technology to deliver and present learning content and enable learning to achieve interaction with

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others. Chen (2020) thought mobile learning from a technical perspective as digital English learning implemented through recognition devices, including devices, and digital cellular phones.

Schiller studied mobile learning in English learning as the intersection of mobile computing technology, which can bring learners a English learning experience anytime and anywhere and make learning rich in interactivity. He further explained that mobile learning should enable learners to enjoy an educational moment through mobile phones or anytime, anywhere. In his original words, it is "enjoy an education moment".

It can be seen that mobile technology assisted language learning has unparalleled advantages in expanding learning time, enriching learning interactions, and improving learning efficiency. We should use mobile technology to connect classroom and extracurricular activities, so that students have more opportunities to contact English, and provide comprehensive support for students' spoken learning.

3.2. Self-Efficacy in Mobile Learning

Bsed on the mobile learning, self-efficacy, as a non intellectual factor, can play a crucial role, and can even directly affect learners' listening, reading, writing, and speaking abilities. Hayat's definition of self-efficacy with the mobile-assisted is an effective or ineffective subjective experience that an individual's own behavior affects their academic performance results. Talsma associates self-efficacy with a specific context in his research, and he believes that self-efficacy is not a non contextual assessment of the mobile learning to detach oneself from the context; On the contrary, self-efficacy is a belief in what we can do with our skills and abilities in certain environments and conditions. Chinese scholars have also made some supplements to self-efficacy, such as Zhou's belief that it refers to people's subjective confidence level in whether they can use the mobile learning skills to complete a certain self-efficacy behavior. In summary, it can be seen that although domestic and foreign scholars have different definitions of this theory, its core content is consistent.

Huang (2021) mentioned that in the era of "Internet plus", the diversified mixed teaching mode of "Moke+Micro class+Flipped Classroom" and the diversified learning environment based on "WeChat+Mobile Network" are conducive to promoting college students' self-efficacy learning ability and improving the quality of college English teaching. The function of self-efficacy can be found through the research of a group of scholars to have many practical functions. For example, with the help of mobile learning, self-efficacy can affect an individual's choice of behavior, the level of behavioral effort, and the persistence of behavior. The stronger the self-efficacy, the stronger the individual's positivity and mobile learnnig towards behavior.

In summary, based on the function of self-efficacy, the author found that it can have a significant impact on mobile learning activities. Moving this discovery to students, the functional effect of self-efficacy on junior high school students will be reflected in their learning and life. Therefore, Hayat (2020) suggested that the function of self-efficacy also has a certain impact on the mobile learning behavior of junior high school students. After the theory of self-efficacy was put forward, front-line Language education began to associate it with mobile learning in English speaking, and tried to reveal its internal laws. From these research results, we can find that self-efficacy and mobile learnig have a certain correlation, and most of the survey data show that self-efficacy has a positive impact on mobile learnig skills. Although the impact of oral self-efficacy on oral performance has been mentioned in individual studies, specialized research on their correlation is still limited.

3.3. Autonomy in Learning English Speaking

Autonomy is a complex and rich concept. "Autonomous" in English is a combination of the Greek words "auto" and "nomos", which gradually evolved into the meaning of self-management and control related to people. This is consistent with the variables and subdomains in this study. In terms of learning autonomy in Engllish speaking, scholars at home and abroad have different expressions of this concept. For example, Cappellini (2017) pointed out that learning autonomy in English speaking refers to the process by which students stimulate and maintain their cognition, emotion, and behavior, all of which are aimed at achieving speaking goals. Learning autonomy is also an ability for English speaking. For example, Liu (2018) explained learning autonomy in English speaking by separating individuals from external authoritative control and thereby possessing control over their own speaking activities. He believes that "an autonomous individual must have independence from external authority and the ability to control free movement, and self-planning." Chai (2016) skillfully defined learning autonomy in English speaking as "a systematic accomplishment in which students transform their autonomy

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independently and accumulatively in school teaching and life, and exercise autonomy and self-participation in emotions, cognition, and behavior". Autonomy in English speaking is a subjective will. This view originates from the main viewpoint of self-activity, namely, learning autonomy refers to the subjective experience that students believe the ongoing learning behavior expresses their inner self, needs, and intentions, and is stimulated by the self rather than others. It also manifests as a series of continuous changes from non-autonomy to autonomy.

Autonomy is not about being unaffected by external influences, but about individuals truly agreeing to external influences. Therefore, learning autonomy reflects the process of interaction between subject and object, emphasizing both the self planning and the impact of activities factors on learning autonomy.

The research on learning autonomy in English speaking can be mainly elaborated from three aspects: The first is the research on current situation characteristics, mainly focusing on the analysis of demographic background variables such as grade characteristics and gender characteristics of learning autonomy in English speaking. The second is mechanism research, which mainly involves the mobile learning of learning autonomy affecting other axiomatic components, as well as exploring the impact mobile learnig of various internal and external factors on learning autonomy. The third is intervention research, which mainly intervenes in different ways on learning autonomy in English speaking. Many studies have shown that supportive backgrounds have a positive impact on individuals' intrinsic motivation or autonomy, while controlling backgrounds can reduce individuals' autonomy. Supportive backgrounds are social background factors that come from important others and meet the basic needs of students such as self monitoring, competence, and belonging. Early research believed that teacher autonomy support is an important external social barrier that affects students' autonomous development with the mobile learning.

4. Methods

This study adopted a quantitative descriptive research method in the assessment of the three variables and their correlation. In this study, the author used the method of literature analysis to determine the three variables that differ greatly. By analyzing and comparing the frequency of the survey results, weighted mean, correlation, significance, and other indicators, it fully explains the similarities and differences for junior high students in the three variables.

The participants of the study were 426 junior high school students from two private and two public schools. The data were gained from four schools with a total population of 4115 students, majoring in the four schools (S1, S2, S3, and S4) who were randomly selected as participants. The number of respondents was computed using the Raosoft online sample size calculator with 4.5% margin of error and 95% confidence level. Therefore, a total of 426 questionnaires were distributed to and retrieved from respondents, with an effective rate of 100 percent.

The study utilized an adapted structured questionnaire as the main data collection instrument to determine the correlation relationship between dependent variables and independent variables. The dependent variables, namely the mobile learning in English speaking, mobile Learning self-efficacy and autonomy in learning English speaking, while the independent variables, namely gender, type of junior school and proficiency levels.

5. Procedures

This survey coincides in 2022. Firstly, the survey took a long time to make the questionnaires by reviewing the literature and consulting the adviser and professors. After careful revisions, the four questionnaires were decided. Then the questionnaires were distributed directly to the respondents and retrieved through the software Wen Juanxing. Secondly, a pilot test with 32 students from four junior high schools, all of whom were distinct from the participants in the current study, was carried out to evaluate the validity of the primary version of the questionnaire. The participants were asked to complete a questionnaire and highlight any unclear questions or expressions after Chinese and English explanations. All the modified questionnaire indicators had the result of Cronbach $r > .700$. Then, data were gathered by administering an online survey through Wen Juanxing, which can be filled out by scanning the code and submit it to the researcher. Elaborate on the conduct of the survey. The questionnaire before the actual data gathering was validated by consulting experts and by conducting the pilot test. It was done to ensure the validity and reliability of the instrument.

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After tabulating the collected data and subjecting them to statistical treatment, results were analyzed and interpreted. Finally, the researcher analyzed the significant relationships among mobile learning in English speaking, mobile learning in self-efficacy, autonomy in learning English speaking and proposed an enhancement English teaching program for junior high students in the English speaking acquisition.

6. Results and Discussion

Table 1: Percentage Distribution of the Respondents Profile

Sex	**Frequency**	**Percentage %**
Male	173	40.6
Female	253	59.4
Type of Junior School		
Public	191	44.8
Private	235	55.2
Level of English Language Proficiency (PETS-2 Score)		
Below 3	98	23.0
3 – 4	253	59.4
4 – 5	75	17.6

Table 1 presents the distribution of the respondents' profiles in terms of sex, type of schools, and level of English language proficiency (PETS-2 Score).

The first indicator is the distribution of the 426 respondents by gender shows that the male students are 173 (40.6%) while females are 253(59.4%), which shows that there are slightly more female to male ratio, and this issue is actually a common phenomenon in random surveys. Since it is a random survey, it is not possible to set too many assumptions or restrictions, which is in line with the original intention of random surveys.

The next indicator is the type of junior high school.The 426 respondents who participated in the survey were from four different junior high schools in China, two public schools and two private junior high schools, which have the amount of junior students of 4115. The four junior high schools are all provincial key institutions with a similar number of students.

Table 2: Mobile Learning in English Speaking

Indicators	**Weighted Mean**	**Verbal Interpretation**	**Rank**
1. Application Status	2.61	Agree	5.5
2. Application Context	2.61	Agree	5.5
3. Functional Preference Analysis	2.93	Agree	4
4. Implementation mode selection	3.44	Agree	3
5. Application Management	3.57	Strongly Agree	2
6. Attitudes toward Application	3.62	Strongly Agree	1
Composite Mean	**3.13**	**Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 2 refers to the summary on mobile learning in English speaking. The overall mobile learning in English speaking includes six sub-scales, application status, application context, functional preference analysis, implementation mode selection, application management and attitudes toward application. From the table above, it can be seen explicitly that the composite mean of the six variables is just 3.13, which indicates that the overall result is at an intermediate level. This analysis results display that a large amount of mobile learning in English speaking in junior high school students in China. Among the six variables, the weighted mean of students's attitudes toward application ranks the top with the highest value 3.62, then followed with the application management with 3.57, and the application status and application context weighted mean 2.61 with the lowest value. The results refer to the respondents' "attitude toward geting proper mobile learning resources to improve skills in speaking English" are strongly agreed. However they cannot get familiar with "application status and application context" well.

The results of functional preference analysis and implementation mode selection have similar weighted mean ranked in the middle, which indicate that the respondents have a positive attitude toward them. Too. It can be explicitly indicated that the application management is equipped with the second highest weighted mean among the six variables. Self- management ability refers to the ability of students to choose appropriate learning methods and continuously plan, monitor, and regulate learning

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activities as a whole in order to achieve the expected learning goals during the learning process. According to the objects of learning management, self-management abilities are divided into two categories: self directed and task oriented. The so-called self-directed learning regulation ability refers to the ability of learners to monitor their psychological factors such as attention and emotional state. Task-oriented learning regulation ability refers to the ability of learners to manage elements such as learning styles, learning strategies, learning methods, learning errors, learning objectives, learning tasks, and learning plans. The above two learning and management abilities complement each other. Based on the above analysis, this study investigates learners' learning management abilities through time control, online interactive learning on English speaking with teachers and foreigners, foster autonomy and independent learning, participates in English speaking learning communities through mobile learning tools for collaborative learning and receive online English speaking guidance from teachers or foreigners, It also coincides with the research results of most researchers.

Table 3: Self-Efficacy in Mobile Learning

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Attitudes	3.60	Strongly Agree	1
2. Resources	2.69	Agree	4
3. Self-adjustment	3.54	Strongly Agree	2
4. Evaluation	3.51	Strongly Agree	3
Composite Mean	**3.33**	**Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Summary table on self-efficacy in mobile learning is presented in Table 3 revealing attitudes, resources, self-adjustment, and evaluation. Here, attitudes have been discussed in relation to 3.60 were heavily weighted, but resources were given less attention. To look into the self-efficacy in mobile learning, means and standard deviations were computed. The researcher used the Oxford (2001) scoring method to determine the frequency of strategies: high (mean of 3.5 or more), medium (mean of 2.5-3.4), and low (mean of 2.4 or lower). According to descriptive data in Table 3, the attitudes got a weighted mean of 3.60, which is the highest indicator. Self-adjustment is quite similar to evauation, ranked as the second and third, respectively.

In terms of resources, it ranked at the lowest (M = 2.69). As a result, it can be concluded that junior high students have a posstive attitude towards self-efficacy. While they cannot get self-adjustment and evaluation well. Especially, they are lack of enough ways to get the resources. According to research on the relationship between academic self-efficacy and academic performance in the field of English teaching abroad, this pattern is in line with research done by academic self-efficacy has a certain correlation with students' academic performance. Hayat (2020) believes that the study of self-efficacy is an effective or ineffective subjective experience that is influenced by an individual's own attitude and evaluation results Talsma (2018) linked self-efficacy with evaluation in his research, stating that self-efficacy is not a non contextual assessment of the ability to detach oneself from the context; On the contrary, self-efficacy is a belief in what we can do with our resources in certain environments and conditions. Chinese scholars have also made some supplements to self-efficacy, for example, He (2018) believes that self-efficacy refers to the level of self-adjustment that people have about whether they can use their skills to complete a certain work behavior. In summary, it can be seen that although domestic and foreign scholars have different definitions of this theory, its core content is consistent.

Most studies have shown a positive correlation between students' self-efficacy and attributes, resources, self-adjustment, and evaluation, but there are still opposing voices. Because there is also research indicating that there is no correlation between students' self-efficacy and their achievements. Tseng (2018) investigated the relationship between English proficiency and self-efficacy among 68 art students, and the results showed that there was no significant correlation between students' English proficiency and self-efficacy. Scholars suggest that art students may have lower levels of English academic performance due to spending their time exercising their professional skills. There is not always a positive correlation between academic self-efficacy and student achievement, and academic self-efficacy cannot fully promote student academic achievement.

Table 4 presents the summary on autonomy in learning English speaking. Here, the tactics for autonomy in learning English speaking have been discussed in relation to five variables. The study's findings revealed that both of self-management and self-monitoring were heavily weighted, but self-activity were given the least attention. Meanwhile, means and standard deviations were computed. The researcher used the Orawiwatnakul (2017) scoring method to determine the frequency of strategies: high (mean of 3.5 or more), medium (mean of 2.5-3.4), and low (mean of 2.4 or lower). According to

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the descriptive statistics in Table 4, the mean overall self planning is 2.69, which denotes second highest indicator. According to the descriptive statistics in Table 5, the mean overall self-participating is 2.63, which idenotes a medium indicator. The results showed that junior high students hope to conduct self-management and self-monitoring best, but they didn't have enough resources and mobile-assisted tools to conduct self-activity in speaking English learning. Thus, self-activity got the lowest mean. Compared with participants in other research, those findings are consistent with the results of this study.

Table 4: Autonomy in Learning English Speaking

Indicators	Weighted Mean	Verbal Interpretation	Rank
1. Self-management	3.58	Strongly Agree	1.5
2. Self-activity	2.60	Agree	5
3. Self-participation	2.63	Agree	4
4. self-monitoring	3.58	Strongly Agree	1.5
5. Self-planning	2.69	Agree	3
Composite Mean	**3.02**	**Agree**	

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 5: Proposed Program for Enhancement of English Speaking Proficiency Level through Mobile-Assisted Language Learning of Chinese Junior High School Students

Key Result Areas &Objectives	Program Objectives	Strategies/Activities	Succindicators	Persons involved
1.**Mobile Learning in English Speaking**				
1.1 Application Status dimension	1. Enlarge students' mobile application resources 2. Improve students' mobile learning application perception	**Introduction** •Lecture on how to use more mobile learning tools; • Introducing effective presentation techniques •Video introduction to the usage of mobile learning tools **Implementing** •Interactive workshops on a variety of relevant mobile soft-wares; •browse websites in speaking English using mobile learning tools **Summarizing** •Affective strategies on usage of useful tool to improve English speaking skills; •English speaking courses with the introduction of the functions of mobile learning;	Students have mastered different mobile learning tools; students have gained more effective resources and improve their mobile learning	Junior high students; English teachers; Instructors
1.2.Application Context dimension	1. Enrich mobile application context 2. cultivate students' analytical ability	**Introduction** •get speaking English content sent on mobile assisted tools regularly •introducing lots of resources for learning English speaking **Analyzing** •Seminar on discussion of the advantage and disadvantage of different mode selection; •online interactive learning; •activities to participate in English speaking learning communities through mobile •learning tools for collaborative learning **Monitoring** •courses of introducing different specific purposes •courses of control time for learning speaking English with mobile assisted tools;		
2**. Self-Efficacy in Mobile Learning**				
2.1 Resources dimension	1. Enlarge the resources	**Introduction** •Exercises for gradually reducing the difficulty of students' learning mobile tools;	Students have built confidence to improve their self-efficacy; students	Instructors/ Peers/ Clubs/ Student Union

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	2. Proficient in mastering resources	•Tasks for completing proper mobile learning methods **Practising** •Courses to analyze the degree of matching between spoken English resources and learning objectives; •interactive talks to encourage students to initiate learning independently; •activities to complete the learning process using at least one mobile learning mode	have adjusted method for achieving their goals	
2.2 Evaluation dimension	1. Integrating with one's own resources 2. Scientific evaluation resources	**Adjustment** •Interactive communication to adjust proper mobile learning method to achieve learning goals •positive students' self-assessment in stages **Clarification** •Lectures on understanding of different resources; •Clarify the strengths and weaknesses of resources •Seminar for evaluating mobile learning style autonomously		
3Autonomy in Learning English Speaking				
3.1 Self-activity dimension	1. Enhance students' activity for autonomy 2. Stimulate students to engage in more activities	**Stimulating** •Activities to stimulate students open their mouth bravely; •Activities to stimulate students' initiative, enthusiasm and creativity **Implement** •Guidance students to persist in spending more time to improve speaking English; •Tasks to handle the problem during completing the homework in English class.	students have raised hand actively to answer questions; students have effectively controlled the trivial time, especially after class ; students have dealt with problems and can analyse them	
3.2 Self-participation dimension	1. Encourage students to participate autonomous learning 2. Foster students cooperation	**Cooperation** •Building up the confidence to persist •Learning from group members **Reflecting and Relating** •Comparing and summarizing •Reflecting on what one learns • Activities to encourage students to be confident to speak out their own ideas in English **Summarizing** •Courses to guide students to mark the mistakes in the oral homework, analyze and correct them •Introduce some app to allocate English speaking time daily; Check regularly to remedy and strengthen students' English speaking.		

This proposed program is suitable for junior high students' speaking proficiency level through mobile-assisted language learning, mainly focusing on enhancing students' resources and application of mobile-assisted tools, especially the most frequently used ones. It seeks to organically integrate the activities with specific language tasks, which is hoped to be beneficial to improve students' speaking proficiency. Though more experiments should be conducted to prove the results, this model is definitely a model full of promises.

7. Conclusions

(1) The respondents from the four junior high schools are relatively even, with more female respondents at the elementary and intermediate level, with PETS-2 score lower than 4, accounting for more than 80% of the total population.

(2) Chinese junior high students agreed with mobile learning in English speaking as to attitudes toward application, which is the most critical influencing factor.

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(3) The majority of respondents of junior high students have agreed that attitudes dimension is the most critical influencing factor in on self-efficacy in mobile learning.

(4) Most Chinese junior high students agreed with the autonomy in learning English speaking as to self-management and self-monitoring dimensions are the highest.

(5) There is no significant difference in responses when grouped according to profile variables.

(6) The correlation between mobile learning in English speaking and self-efficacy in mobile learning is highly significant, as well as in mobile learning in English speaking and autonomy in learning English speaking.

(7) The enhancement program was proposed to simultaneously improve junior high school students' mobile learning self-efficacy, autonomy in learning English speaking and speaking proficiency level through mobile-assisted language learning.

8. Recommendations

(1) English teachers may motivate students to keep trying to use mobile assisted tools for learning English speaking and assist them in finding proper resources to enhance their speaking proficiency level through mobile-assisted language learning.

(2) School administrators may consider evaluating the proposed program for enhancement of English speaking proficiency for implementation.

(3) Student organizations may organize more various English activities and competitions to encourage students to participate in such as English Corner, aiming to enhance the engagement of English learning and their English self-efficacy.

(4) The administrators may evaluate the proposed enhancement program and adjustments may be made to ensure their effectiveness for students to master English speaking proficient.

(5) Future researchers may focus on how to help learners perceive the joy in mobile learning and autonomy; the happiness in self efficacy; and on the enhancement of English speaking proficiency at different growth stages of the same individuals.

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