

The Development of English Speaking Ability Using Inquiry-Based Learning of Matthayomsuksa 1 Students at Prachaksilapakarn School

Patthaya Deemuangkhong¹

Received: 12 March 2020 **Revised:** 17 April 2020 **Accepted:** 21 April 2020

ABSTRACT

Inquiry-based learning will assist in developing students' English speaking ability. The purposes of this study were to investigate and compare the students' speaking ability before and after learning English speaking using Inquiry-based learning and to examine the students' attitude towards teaching English speaking using Inquiry-based learning. The sample in this study was 30 students of Matthayomsuksa 1 students at Prachaksilapakarn School, Udon Thani, selected by cluster random sampling. This study was an experimental research with a one group pretest – posttest design. The research instruments used for this research were: 1) 12 lesson plans of teaching English speaking using Inquiry-based learning; 2) an English speaking ability test; and 3) a students' attitude questionnaire toward teaching English speaking using Inquiry-based learning. The experiment lasted 12 weeks, 2 hours per week, 24 hours in total. Statistics used in this study were mean, percentage, standard deviation, one-sample t-test and t-test for dependent samples. The findings of the research were as follows: 1) The students' pretest and posttest mean scores on English speaking ability were 68.43 or 22.81 percent and 232.03 or 77.34 percent respectively. The students' posttest mean scores were higher than the criterion of 70 percent and higher than that of the pretest. 2) The students' attitude towards teaching English speaking using Inquiry-based learning was at a good level.

¹ Master Student of Arts Program, Program in Teaching English to Speakers of other Languages, Udon Thani Rajabhat University, Thailand; e-mail : khebmaps@gmail.com

KEYWORDS: English speaking ability, Inquiry-based learning, Attitude

Background and Rationale

Learning English for communication is necessary that the learners are capable of using these four skills, e.g. listening, speaking, reading and writing in order to have complete mastery of language. However, the four skills do not exist separately within the language; in other words, the four skills are interrelated. In addition, Press (2014: 19) points out that these four skills are interrelated because using a language generally requires using more than one skill at a time. Even though the four skills are inseparable in terms of their use, teaching of the four skills; however, can be focused on one component skill in order to understand the process of the acquisition of that particular skill, and of the four skills, speaking would appear to be the basic to language learning. Speaking is, however, sometimes considered in an undervalued skill. It might be because almost everybody can speak, so they take the skill for granted. In fact, speaking is a skill which deserves attention as much as literary skills, in both first and second languages. Furthermore, the learners usually need to be able to speak with confidence as to carry out the most basic transactions. It is the skill which most frequently judged whether a person can use the language or not. Bygate (2010: VII) emphasises that speaking is the vehicle par excellence of social solidarity, of social ranking, of professional advancement and of business. Moreover, the course in speaking skills is increasingly placed in language programs around the world today. Thus, speaking is very important skill for the learners in order to deliver the information to others and to communicate in worldwide level.

A study by Khamparted (2012: 58) showed that it was difficult for Thai students to understand a speaker with a regional accent, a speaker who spoke too quickly, after only listening once, and it was also difficult for them to understand a speaker with poor pronunciation. In addition, they did not want to make mistakes when speaking in front of their friends, and they always forget to say the final sounds of the words. This finding is also similar to a research by Khamkhen's (2010: 757) which showed that most of the participants' English pronunciation was somewhat limited. Another study conducted by Hakim (2015: 3) showed that the problems that Thai students have with speaking English are the relation with inhibition,

nothing to say, using mother tongue in which they don't have much confidence to speak English, especially outside the class, and the last problem shows from the study is the low or uneven participation. Therefore, it is very challenging for Thai students to be able to speak English and use it fluently. Due to the importance of English speaking and problems that Thai students are encounter with, the teacher has to find the suitable strategies and effective methods that can help improve the students' English speaking ability.

According to the report from Academic Office of Prachaksilapakarn School, (2018) for Matthayomsuksa 1 students in Prachaksilapakarn School, the English final exam in the second semester of academic year 2018 indicated that there were only 62 students out of 390 students in total who had scores above 75 percent. This explains that the students are in need of help and support with their English learning. In addition, they only learn English three hours a week in class and when they are outside of the class or school, they barely have a chance to use English. According to Nunan (2015: 54), people who learn a language in a foreign language context have limited opportunities to speak the language outside the classroom unlike those who learn a language in a country where the language is widely used, and there are limitless opportunities to improve a learner's speaking by using it for real communication in the wider community. Therefore, Matthayomsuksa 1 students in Prachaksilapakarn School need more opportunity and to be supported with some strategies that might help them improve their English learning especially speaking ability which is essential for the 21st century learning skills.

From the literature studied, inquiry-based learning might be an effective strategy that helps students develop their speaking ability. According to Caputo (2014: 370), inquiry-based learning is an effective means of developing and additional language. In addition, Murdoch (2015: 15) claims that it is widely acknowledged that learners are more motivated to learn when they are genuinely interested in or curious about the subject or when they have a problem they need to solve. This can also imply that learning happens through curiosity and driven by powerful questions which often framed by authentic contexts and real-life problems and purposes. Additionally, the inquiry-based learning process gives additional language teachers a process that they can use to plan their own units of inquiry. Inquiry-based learning is all about giving students the skills, dispositions and the opportunities to investigate – to find

out information, make meaning and take action based on what is discovered. Furthermore, the study by Duran (2016: 2887) finds that learning supported with the guided activities developed in line with the inquiry-based learning approach have significant effects on students' critical-thinking skills. This means that the inquiry-based learning does not only help the development of language learning, but also promote the critical-thinking skills of learners.

Research Objectives

The objectives of this study were as follows:

1. To study and compare mean score of Matthayomsuksa 1 students' speaking ability before and after teaching English speaking using Inquiry-based learning
2. To investigate students' attitude toward teaching English speaking using Inquiry-based learning

Research Hypotheses

1. English speaking ability mean score of Matthayomsuksa 1 students is higher after learning English speaking using Inquiry-based learning.
2. English speaking ability mean score of Matthayomsuksa 1 students is not less than 70 percent after learning English speaking using Inquiry-based learning.

Scope of the Study

The study focuses on the following aspects:

Population and Sample

1. The population in this study was 463 Matthayomsuksa 1 students of 14 classroom in Prachaksilapakarn School, Udon Thani, under the Secondary Educational Service Area Office 20.
2. The sample in this study was 30 students of Matthayomsuksa 1 class 1. These students studied English in the first semester of the academic year 2019 at Prachaksilapakarn School, Udon Thani, selected by cluster random sampling.

Variables

1. Independent variable was teaching English speaking using inquiry-based learning.

2. Dependent variables were English speaking ability and attitude towards teaching English speaking using inquiry-based learning.

Research Method

1. The lesson plans of teaching English speaking using inquiry-based learning consisted of 12 lessons, 2 hours a lesson, 24 hours in total. The value of the Index of Item Objective Congruence (IOC) was 1.00 for every plan.

2. An English speaking ability test was to examine five aspects of speaking ability: pronunciation, grammar, vocabulary, fluency and expression using Hughes's (2003) assessment criteria for speaking test. It was the oral interview test with 10 items. The value of the Index of Item Objective Congruence (IOC) was 1.00 for every item. The reliability of three raters was 0.99.

3. A students' attitude questionnaire towards teaching English speaking using Inquiry-based learning. The questionnaire was developed in both English and Thai version which consists of 20 items related to the contents using a five point Likert's rating scales. The value of the Index of Item Objective Congruence (IOC) was 1.00 for every item.

Data Collection

1. The researcher conducted the pretest by using the English speaking ability test before teaching using Inquiry-based learning.

2. The researcher carried out the teaching program using the Inquiry-based learning 12 lesson plans for 24 hours, 12 weeks.

3. The researcher administered the posttest by using the same English speaking ability test after the teaching process using Inquiry-based learning had completed.

4. The researcher distributed the students' attitude questionnaires to identify the students' views after learning English speaking using Inquiry-based learning.

5. The researcher analyzed data from the pretest, posttest, and the attitude questionnaire towards teaching English speaking using Inquiry-based learning.

Data Analysis

The collected data of an English speaking ability test and the students' attitude questionnaire were statistically analyzed as follows:

1. To examine the effectiveness of the students' English speaking ability of Matthayomsuksa 1 students using mean (\bar{x}), percentage, and standard deviation (S.D.)
2. To compare English speaking ability of students after learning and the set criteria of 70 percent using one-sample t-test
3. To compare the differences of English speaking ability results from the pretest and posttest using t-test for Dependent Samples
4. To investigate the students' attitude toward English speaking using inquiry-based learning using mean (\bar{x}) and standard deviation (S.D.) to interpret the meaning of criterion's average

Conclusions of the Study

1. A comparison of mean scores on English speaking ability before and after learning English speaking using Inquiry-based learning of Matthayomsuksa 1 students using t-test for Dependent Samples is displayed in table 1.

Table 1: Results of the Comparison of the students' English Speaking Ability Before and After Using Inquiry-based Learning

Tests	n	\bar{x}	S.D.	t
Pretest	30	68.43	30.78	
Posttest	30	232.03	17.37	46.09 **

** significantly different at the .01 level

From Table 1, it shows that the students' pretest mean score on English speaking ability was 68.43 and the posttest mean score was 232.03. The results explain that the students' English speaking ability after studying English speaking using Inquiry-based learning was significantly higher than the prior at the .01 level.

2. Results of the Comparison of Students' English Speaking Ability after Using Inquiry-based Learning and the Set Criteria of 70 percent are displayed in Table 2.

Table 2: Results of the Comparison of Students' English Speaking Ability After Using Inquiry-based Learning and the Set Criteria of 70 percent

Test	n	\bar{x}	S.D.	70 Percent	t
Posttest	30	232.03	17.37	77.34	51.08**

** significantly different at the .01 level

From Table 2, it presents that the students' posttest mean score on English speaking ability was 232.03 or 77.34 percent. The results explain that the students' English speaking ability after learning English speaking using Inquiry-based learning was significantly different at the .01 level. The posttest score was significantly higher than the set criteria of 70 percent.

3. The results of the investigation of the Matthayomsuksa 1 students' attitude towards teaching English speaking using Inquiry-based learning is displayed in Table 3. The students' attitude questionnaire consists of 20 items utilizing a five-point Likert's rating scale, ranging from 5 (strongly agree) to 1 (strongly disagree). The questionnaire was administered after completing the teaching program.

Table 3: Results of Students' Attitude towards Learning English Speaking Using Inquiry-based Learning

Questionnaire	n	\bar{x}	S.D.	Interpretation
Students' attitude towards teaching English speaking using inquiry-based learning	30	4.12	0.12	good

From Table 3, it shows that the mean score (\bar{x}) of students' attitude towards teaching English speaking using Inquiry-based learning was at 4.12. It indicates that the students' attitude towards teaching English speaking using Inquiry-based learning was at a good level.

The study and comparison of pretest and posttest scores on English speaking ability and an investigation of Matthayonsuksa 1 students' attitude towards teaching English speaking using Inquiry-based learning can be summarized as follows:

1. The students' pretest mean score on English speaking ability was 68.43 or 22.81 percent and that of the posttest was 232.03 or 77.34 percent, respectively.
2. English speaking ability of students after studying English speaking using Inquiry-based learning was higher than the set criteria of 70 percent. The students' English speaking ability was found to be significantly different at the .01 level.
3. The students' attitude towards teaching English speaking using Inquiry-based learning was at a good level. The mean was 4.12.

Discussion

This study was an experimental research with a one group pretest-posttest design. It was a quantitative research method (Cambell & Stanley, 1966: 7). It aimed to study and compare students' English speaking ability before and after using Inquiry-based learning, and to investigate students' attitude towards teaching English speaking using Inquiry-based learning. The research findings can be discussed as follows:

1. The results of the study and comparison of the English speaking ability of Matthayomsuksa 1 students before and after using Inquiry-based learning illustrated that students' pretest and posttest scores on English speaking ability were 68.43 or 22.81 percent and 232.03 or 77.34 percent respectively. These findings were in accordance with the first hypothesis. The students' posttest score on English speaking ability was significantly higher than the pretest at the .01 level. Thus, it showed that Inquiry-based learning could facilitate Matthayomsuksa 1 students' English speaking ability. Therefore, the results of the study are concluded and presented as follows:

Firstly, teaching English speaking using Inquiry-based learning could benefit and facilitate students to learn English speaking well. These findings support the ideas stated by Murdoch (2015: 15) that learning happens through curiosity and driven by powerful questions which often framed by authentic contexts and real-life problems and purposes. It was also relative to the study by Duran (2016:2887) who found out that the inquiry-based learning was helping in the development of language learning and it was also promoted the critical-thinking skills of learners.

Secondly, when the students worked in pairs or small groups, it helped them to have more language interaction. Likewise, Chappell (2014: 124) states that small group work provides opportunities for language development to occur while students are co-constructing meanings. It also makes positive contributions to the teaching and learning programme. Working in pairs or a small group also could help comfort the students who were not very confident in working alone or by himself or herself and/ or afraid of speaking English because they could ask, answer questions, and share ideas with their friends knowing that it was acceptable to make a mistake. Additionally, the students had learned and practised not only speaking skills, but also the other important skills used for communicating such as listening, reading, and writing throughout the Inquiry-based learning activities.

This study was consistent with the study of Nuangchalerm & Thammasena (2009) who investigated the cognitive development, analytical thinking and learning satisfaction of second grade students learned through inquiry-based learning. The participants of the study were 10 second grade students, sampled by purposive sampling technique. Research instruments comprised of 8-lesson plan, 20-item achievement test, 20-item analytical thinking test, and 15-item questionnaire on learning satisfaction. The results from the research revealed that inquiry-based learning activities had effective criterion at 84.46/82.50; effectiveness index of inquiry-based learning activities was 0.5200; post test score of achievement test higher than those pretest score at .05 statistical significance level; and students had learning satisfaction on inquiry-based learning activities at the highest level. Therefore, it can be concluded that inquiry-based learning activities promoted students in terms of both cognitive,

analytical thinking, and learning satisfaction. It should be also suggested in for pedagogical preparation and incorporate it into science curriculum.

This study was also consistent with the study of Duran (2016) who studied the effect of Inquiry-based learning approach on student's critical-thinking skills. The findings of the study revealed that science and technology learning supported with the guided activities developed in line with the Inquiry-based learning approach has significant effects on students' critical-thinking skills in science and technology courses. The study was conducted with 90 students from the 6th grade attending four, 6th grade secondary school classes. Within the framework of the study, in order to evaluate the effects of inquiry-based approach on the students' critical-thinking skills in science and technology courses, the guided activity set was developed by the researchers in line with the inquiry-based learning approach. In this study, pretest and posttest control group experimental designs were applied. The findings of the study revealed that science and technology learning supported by the guided activities developed in line with the Inquiry-based learning approach has significant effects on students' critical-thinking skills in science and technology courses. This study has shown that not only the Inquiry-based learning has a positive impact on students' speaking, but also their critical-thinking skills.

It was also relevant to the study of Argawati (2017) who conducted an experimental study on the effectiveness of Inquiry-based instruction to teach speaking. The study revealed that the students with high level of risk-taking have better speaking than those with low level of risk-taking and there is an interaction between the teaching methods and the students' level of risk-taking. The researcher also strongly suggested the teachers to teach speaking using Inquiry-based learning.

2. From an investigation of students' attitude towards teaching English speaking using Inquiry-based learning, it revealed that the students' attitude towards teaching English speaking using Inquiry-based learning was at a good level. This might be that the students were provided preference in speaking using Inquiry-based learning. The students were provided with Inquiry-based learning activities which required students to have language interactions with their friends and it helped them to gain more confidence in English speaking. These activities also provided the students with an opportunity to think and come up with their

own questions and answers. Likewise, Brown & Abeywickrama (2010: 164 – 166) explains that attitudes are cognitive and affective which related to thoughts as well as to feelings and emotions. A person who has a positive attitude toward the self and the target language group is enhanced proficiency.

In conclusion, students' attitude toward teaching English speaking using Inquiry-based learning influenced students' English speaking. The students were activated to learning English speaking and have a positive attitude toward English speaking.

Recommendations

1. Recommendations from the study

The researcher suggests the following recommendations in order to make use of this study.

1.1 The results of this study has shown that the students' posttest score on English speaking ability was higher than the pretest score and a set criterion of 70 percent. This reveals that the inquiry-based learning approach could help and support students to learn English speaking effectively. Therefore, teaching English speaking using inquiry-based learning should be promoted and used in order to help students to have more confidence in English speaking.

1.2 From the study results, it was also found that the students' attitude toward teaching English speaking using inquiry-based learning was at a good level. It was quite a challenge for both students and a teacher to use this approach as a guideline to learn English speaking, but it was worth trying after all. In teaching English speaking using inquiry-based learning, students were engaged in conversations in real-life situations which could help them remember words and conversations more easily. The students enjoyed making questions and come up with their own answers cheerfully even though they might be wrong, but the students were not too afraid to make a mistake. It might as well be that working in pairs and small groups through their learning helped the students access to the language interaction more. As a result, inquiry-based learning should be promoted and used among English teachers in teaching English speaking.

2. Recommendations for further study

According to the results discussed earlier, some suggestions are proposed here for further studies.

2.1 Researchers should explore and consider developing other English language skills, such as writing, reading and listening.

2.2 Researchers should promote and apply inquiry-based learning with other types of learning approaches in order to give students more support in different areas of their learning not only speaking skills.

2.3 Researchers should investigate teaching English speaking ability using inquiry-based learning to other different educational levels of students, for instance, primary students, high school students or even university students.

2.4 Researchers should also promote or create a friendly and high quality environment for students' learning, for instance, teacher opens up for questions students need to know, no judgement, classroom decoration useful for students, etc.

References

- Argawati, O. N., (2017). *The Effectiveness of Inquiry based Instruction to Teach Speaking Viewed from Students' Risk-taking*. From <http://ningtyas-orilina-argawati.dosen.stkipsiliwangi.ac.id/files/2017/05/jurnal-yura-semnas.pdf>.
- Brown, H. D. & Abeywickrama, P. (2010). *Language assessment principles and classroom practices*. NY: Pearson Education.
- Bygate, M. (2010). *Language Teaching Speaking*. New York: Oxford University Press.
- Campbell, T. D. & Stanley, C. J. (1966). *Experimental and Quasi-experimental Designs for Research*. U.S.A.: Houghton Mifflin.
- Caputo, L. (2014). *Using inquiry-based learning to teach additional languages in a high school context*. Emerald Group Publishing Limited.
- Chappell, P. (2014). *Group Work in the English Language Curriculum*. New York: Palgrave Macmillan.

- Duran, M. (2016). The effect of the inquiry-based learning approach on student's critical thinking skills. *Eurasia Journal of Mathematics, Science & Technology Education*, 12 (12),02311a. Retrieved July 2, 2018, from <http://www.iserjournals.com/journals/ejmste>.
- Hakim, L. (2015). *A Study On The Problems Faced By Thai Students In Learning English Speaking At Boarding House*. From <http://eprints.umm.ac.id/32691/1/jiptummpgdl-lukmanhaki-42868-1-pendahul-n.pdf>.
- Khamkhen, A. (2010). *Thai Learners' English Pronunciation Competence: Lesson Learned from Word Stress Assignment*. From <http://www.academypublication.com/issues/past/jltr/vol01/06/01.pdf>.
- Khamprated, N. (2012). *The Problems with the English Listening and Speaking of Students Studying at a Private Vocational School*. From [http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan\(M.A.\)/Nualsri_K.Pdf](http://thesis.swu.ac.th/swuthesis/Tea_Eng_For_Lan(M.A.)/Nualsri_K.Pdf).
- Murdoch, K. (2015). *The power of inquiry*. AUS: Seastar Education.
- Nuangchalerm, P. & Ttfc vhammasena, B. (2009). *Cognitive Development, Analytical Thinking and Learning Satisfaction of Second Grade Students Learned through Inquiry-based Learning*. Retrieved from <https://files.eric.ed.gov/fulltext/ED506511.pdf>.
- Nunan, D. (2015). *Teaching English to speakers of other languages*. New York: Routledge.
- Press, S. (2014). *Education reference guide: Language learning and development*. US: A division of EBSCO Information Services.