การพัฒนาความสามารถการอ่านภาษาอังกฤษเพื่อความเข้าใจและการใช้รูปกาลภาษาอังกฤษโดยผ่านการสอนกลวิธีการตั้งคำถามของนักศึกษาระดับปริญญาตรีที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ สถาบันเทคโนโลยีไทย-ญี่ปุ่น กรุงเทพมหานคร

Developing English Reading Comprehension Ability and Use of English Tenses through Question Generating Strategy Instruction of EFL Undergraduate Students at Thai-Nichi Institute of Technology, Bangkok

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาผลการสอนกลวิธีการตั้งคำถามที่ผู้เรียนสร้างขึ้นโดยผ่านการสอนด้วยยุทธวิธีการตั้งคำถามที่มีต่อความเข้าใจในการอ่านภาษาอังกฤษและการใช้รูปกาล โดยผู้วิจัยได้กำหนดให้มีการทดสอบก่อนและหลังเรียน ดำเนินการโดยมีกลุ่มควบคุม และกลุ่มทดลองเป็นนักศึกษาระดับปริญญาตรีจำนวน 30 คน ที่ได้ลงทะเบียนรายวิชาภาษาอังกฤษพื้นฐาน ในภาคการศึกษา 1 ปีการศึกษา 2564 คัดเลือกมาโดยวิธีการเลือกแบบเจาะจง (purposive sampling) โดยผู้วิจัยได้แบ่งกลุ่มเป็นกลุ่มควบคุม 15 คน และกลุ่มทดลอง 15 คน โดยวิธีการจับฉลาก เครื่องมือที่ใช้ในการรวบรวมข้อมูลประกอบไปด้วยแบบทดสอบก่อนเรียนและหลังเรียน ด้านความเข้าใจในการอ่านภาษาอังกฤษ และแบบทดสอบก่อนเรียนและหลังเรียนด้านการใช้รูปกาล ดำเนินการทดลองเป็นระยะเวลา 4 สัปดาห์ และทดสอบสมมติฐานด้วยสถิติทดสอบ t-test ผลการวิจัยพบว่า นักศึกษากลุ่มทดลองที่ได้รับการสอนยุทธวิธีการตั้งคำถาม มีคะแนนทดสอบหลังเรียนสูงกว่านักศึกษากลุ่มควบคุม ทั้งในด้านการอ่านและการใช้รูปกาลอย่างมีนัยสำคัญทางสถิติที่ระดับ .01

คำสำคัญ: การอ่านภาษาอังกฤษ, รูปกาล, กลวิธีการตั้งคำถาม

Abstract

The purpose of this study was to investigate if the implementation of question-generating approach instruction, where students develop their questions, may enhance the reading comprehension skills and proficiency in English tenses of undergraduate learners studying English as a Foreign Language (EFL). The design of this study conducted a pre-and post-test study with two groups: a control group and an experimental group. The participants were 30 undergraduate students who had enrolled in the Basic English course during the first semester of the academic year 2021. The selection of participants was done using a purposive sample method.

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The participants were randomly assigned to two groups: a control group consisting of 15 individuals and an experimental group consisting of 15 individuals. The data collection process involves administering pre and post-examinations to assess English reading comprehension and proficiency in using tenses. The experiment was carried out over a duration of 4 weeks, and the hypotheses were evaluated through the application of a statistical t-test. The findings revealed that the experimental group achieved significantly higher scores on the post-tests of English tense usage and reading comprehension compared to the control group. ($p<.01$).

Keywords: English leading, English tenses, Question generating strategy

Introduction

The importance of the English language for Thai people has never been so elevated as the premier international language affirms its primary usage in science and technology, international trade, and international communications, which continue to develop in Thailand. English is becoming more and more important for those from Thailand who aim to participate in areas such as science and technology, social studies, politics, economics, and education in environments in other countries to improve their understanding of information and knowledge.

Of the four skills of English; speaking, listening, reading, and writing, reading can be allocated a disproportionately high level of importance as it forms the platform in which to learn other skills and is imperative in getting access to different types of data. So, it can be assumed that reading is a necessity for every generation to obtain information and knowledge from written mediums. The importance of reading is backed by research. Carrell (1988: 16) concluded that, of the four skills, reading has the most importance and is of most use for EFL students. Consequently, we can ascertain that the reason for reading is to be able to understand what the meaning of a written piece is, or at least what the implied meaning is from the writer (Mackenna & Stahl, 2009: 19) Consequently, comprehending what readers are reading will make them acquire knowledge and achieve the goal of reading.

The importance of reading is well-documented in research, but despite this, a significant proportion of Thai university EFL learners have reading comprehension skills that are sub-standard. The inference here is that the students aren't meeting the requirements of their academic studies. It can be assumed that English teachers will familiarize themselves with effective procedures to enhance the reading comprehension skills of students. Constructivist learning theory claims that reading is, in itself, a process that is interactive between the text and the reader with the result being comprehension (Song, 2016: 25) To understand the meaning of a text the reader utilizes skills, strategies, and knowledge. This meaning is hidden in the text in the form of letters, words, sentences, and paragraphs. Readers achieve success in their reading by being engaged actively as the act of reading ensures interaction and the construction of meaning. Generations of research have come together to herald the idea that the construction of meaning is involved in effective reading comprehension (Bae, Therriault, and Redifer, 2019) Question generation can be defined as the strategy of compelling the reader

to make questions while reading. This strategy is effective in creating engagement with L2 readers in active reading (Song, 2016). Therefore, if we can say that question generation is an effective way of improving reading comprehension in L2 readers, then we can also assume that it can guide L2 readers toward becoming competent and active readers (Bugg & McDaniel, 2012: 922–931) Student-generated questions and their importance have been used as the basis of modern-day studies of understanding in learning and teaching (Pardo, 2010). Student-generated questions has the back-up of research which reveals that those learners who apply this method post more positive results both during and after a reading session than those students who don't use it (Kamalizad & Jalizadehb, 2011:136-139) The methodology behind student-generated questions begins when users firstly identify the kind of data that possesses the relevant level of significance in order to form a question. Secondly, the data is formulated into a question and personally tested to determine if the question is answerable. Student-generated questions have a degree of flexibility in that, with training, learners can gain the skills to form questions at several skill levels.

Comprehension levels of learners can be assessed easily using student-generated questions either while the task is underway or after the unit of study has finished. Additionally, learners progress to higher levels of cognitive thought through the opportunity to reinforce learning objectives. Teachers make use of questions to aid students in learning the literal meaning of a text to make judgments on comprehension for this very reason.

Student-generated questions can be categorized into three groups - applied, inferential and literal questions in terms of reading comprehension (Song, 2016: 58-70) The former is a type of questions most often used in classrooms. Literal questions can be defined as questions where both the question and answer words can be found in the same sentence. An inferential question suggests an inference where the answer is not quoted but, instead, is inferred from reading 'between the lines'. This type of question requires the reader to read a minimum of two sentences in order to infer the answer by linking the information. What is interesting about applied questions is that they are unable to be answered through previous experience or general and background knowledge. A correct assertion can only be obtained by learners analyzing the information that is there in front of them in the form of the reading material. We can categorize inferential and applied questions as 'upper-level questions' as there is the need for readers to apply critical analysis strategies after a deep investigation of the material. The process of asking a question requires learners to do a number of things such as utilizing their attention selectively, focusing both on main ideas and details. They also hypothesize and determine connections between different sections of the text.

Attaining the skills to understand the kinds and forms of questions is a completely different ability to that using the correct tense within those questions. From personal experience the researcher found that the tenses used by learners were often incorrect despite the sorts and forms of questions usually being right. As an example of this, a sentence in the text could be in the past simple tense but the resultant student-generated question would be in the present simple. This meant that such questions had an underlying flaw. An assumption was made by the researcher that the practice of student-generated questions would, in turn, aid learners in choosing the right tense in their questions. Additionally, a lot of studies show that students

who participate in cooperative learning succeed more and have better relationships with one another. According to Pan and Richard (2018), cooperation does not mean giving a group of students to do, with one student doing all the work and the rest only signing their names. It is not having students sit side by side at the same table to talk with each other as they do their assignments as well. Instead of assigning each pupil a work separately and telling the fastest students to assist the slowest ones. Cooperative learning, on the other hand, is a teaching method in which small groups of students, each with varying degrees of competence, employ a range of learning activities to deepen their grasp of a particular subject. To foster a sense of accomplishment, each team member must not only absorb the material being taught but also assist colleagues in their learning. Students work on the work until each group member can comprehend it and finish it. For these reasons, the researcher decided to assign the students to work in groups during the experiment.

However, in reality and from a number of years' of experience teaching undergraduate learners in Thailand, it has become apparent that the majority of EFL learners in Thailand fail to use the correct tense when taking part in mid-term and final examinations. Additionally, further examples of incorrect tense usage can be witnessed in the lower-level English 1 foundation class. The curriculum request learners to generate questions from the reading section within each unit of the book. Only a small number of students had the ability to create questions of interrogation that were also of the correct tense. These personal experiences provided the inspiration for the researcher to carry out the current study.

Research Objectives

This research was motivated by the idea that student-generated questions through question generating strategy instruction are an effective tool in significantly improving the reading comprehension of learners. Resultant practice of this strategy was also believed to improve their knowledge of English tenses. The aim of this study was to test the effects on reading comprehension and English tenses by student-generated questions through question generating strategy instruction. Two hypotheses were used as a basis for this research:

1. In comparison, the learners who were trained in question-generating strategy would perform better than those who did not learn the strategy and this would be reflected in their post-reading comprehension test scores.

2. The pre-test scores of English tenses would be significantly lower than the post-test scores of English tenses of learners who were subjected to the question-generating strategy.

Conceptual Framework

In the synthesis of research conceptual framework, the researcher studied the research works related to scholars such as Kamalizad and Jalizadehb (2011), Bugg and McDaniel (2012), Nazari (2012), Dorkchandra (2013), Song (2016)

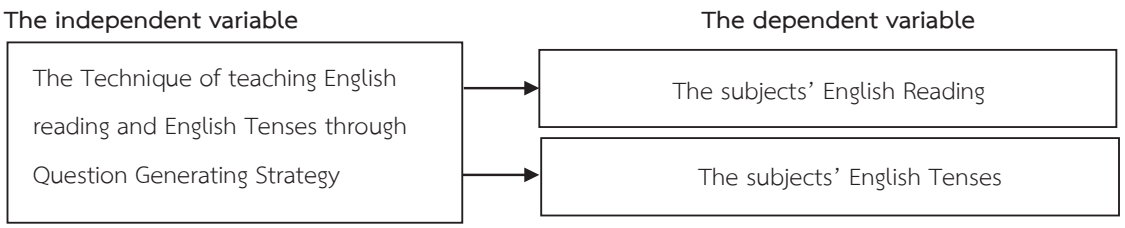


Figure 1 Conceptual Framework

Research Methodology

1. Research Participants

Thirty participants were purposively selected from two Foundation English classes during the first semester of academic year 2021. It was the course for those who got less than 40 marks for the TNI English Proficiency Standard Test. The purposive sampling method was used because the researcher knew very well about the characteristics of the subjects in terms of their English reading proficiency levels, reading strategy knowledge, and English tense ability, based on their previous introductory English course test scores and personal acquaintance with the researcher. The subjects were divided into an experimental group (n = 15) and a control group (n = 15) by means of ballot drawing.

2. Research Design

A quasi-experimental pre-test and post-test with a control group design was used in this study because the participants were from intact classes. The independent variable was the instruction of question-generating strategy. The dependent variables were the reading comprehension scores and English tense scores derived from the participants' post-test.

3. Research Instruments

The instruments used included a reading comprehension test and an English tense test. The two tests were used as both pre and posttests. For the reading comprehension test, there were 30 items in the test with 2 passages, each being accompanied by 15 statements which students needed to choose that were corresponding to each passage. The reading comprehension test was reviewed by 3 English language lecturers of the department before using it with 30 students who were not the target group to find out the level of difficulty. Difficulty (P) is between .35 and .75 and discriminant (r) values are between .20 and .80. The reading comprehension was determined using 25 percent of the high and the low groups, and the Kuder-Richardson (KR-20) reliability index was employed before the test was used with the actual target group. Therefore, the reliability coefficient value of the reading comprehension test was 0.88. Furthermore,

the English tense test was developed by the researcher. There were 15 items of 4 multiple-choice questions. It was also reviewed by 3 English language lecturers of the department before being used with 30 students who were not the target group in order to find out the level of difficulty. Difficulty (P) is between .52 and .57 and discriminant (r) values are between .37 and .44. The English tense test was determined using 25 percent of the high and the low groups, and the Kuder-Richardson (KR-20) reliability index was employed before the test was used with the actual target group. Therefore, the reliability coefficient value of the English tense test was 0.89. The last instrument used was lesson plans which were reviewed by 3 English lecturers as well in terms of grammar structure, content, and objectives.

4. Procedure

After the participants were chosen, the 60-minute pre-tests (comprehension and English tense) were given to them. Then, for 60 minutes, twice a week, for four weeks, the experimental group learned how to generate questions with the researcher teaching them, using the expository passages printed out from various sources on the internet and reliable English –test websites. During the instruction (during the after-class time in the evening) the students were asked to divide into 3 groups. Each group, cooperating, had to generate at least 6 literal questions and 6 inferential questions in writing, based on the given text. Then, each group handed the completely written questions to the researcher who corrected and circulated them among the students to check for misuse of tenses and question forms. Further explanations were given to bring the students' attention to what they had done wrongly in each question. The control group went to their normal class but received no instruction. Both groups received a post-test on reading comprehension and English tenses usage after four weeks.

Data Analysis

Descriptive statistics, means, standard deviations, and percentages were used to analyze the data from the pre-and post-test. An independent samples t-test was conducted to compare the pre-test means of the experimental group with those of the control group to test the hypotheses.

Results

1. Effect of question-generating strategy instruction on reading comprehension The results (Table 1) from comparing the pre and post-reading comprehension test means of the two groups showed that the reading comprehension test scores of the students in the experimental group ($M = 22.50$, $S.D. = 2.55$) were significantly different from those of the students in the control group ($M = 14.55$, $S.D. = 2.35$), $t = 8.560$, $p<.01$. Based on this finding, hypothesis 1 was consequently accepted. These results suggested instruction in question-generating strategy really affects reading comprehension.

Table 1 Comparing means and standard deviations of the post-reading comprehension test scores of the two groups

Group	Mean	S.D.	Max	Min	t	Sig.
Experiment (n=15)	22.50	2.55	26	18	8.560**	.000
Control (n=15)	14.55	2.35	20	11		

**p<.01

2. Effect of question-generating strategy instruction on the use of English tenses Regarding the effect of question-generating strategy instruction on the use of English tenses, it was hypothesized that the students who received question-generating strategy instruction would have significantly higher scores on the post-test of the use of English tenses. The results (Table 2) from comparing the post-test mean scores of the two groups on the use of English tenses showed that the students in the experimental group (M = 24.60, S.D. = 2.25) scored significantly higher than the students in the control group (M = 13.85, S.D. = 3.10), t = 11.012, p<.01.

Table 2 Comparing the post-test mean scores of the two groups on the use of English tenses

Group	Mean	S.D.	Max	Min	t	Sig
Experimental (n=15)	24.60	2.25	28	19	11.012**	.000
Control (n=15)	13.85	2.11	20	8		

**p<.01

Hypothesis 2 was, therefore accepted. These findings suggested that the instruction of question-generating strategy affects students' ability in the use of English tenses.

Discussion

From the results, we can clearly see that the strategy of student-generated questioning and its instruction considerably improves both the comprehension of English and English tense usage among undergraduate students of English. Justification for the use of student-generated questions is shown in the results where it can be concluded that it was worthwhile training learners to come up with literal and inferential questions. The data from this research corresponded with that of Dorkchandra (2013: 34-35) who also concluded that student-generated question training aided learners of EFL in the improvement of comprehension of reading. This research points to skills of reading comprehension and English tense usage increasing significantly when learners used student-generated questions to produce literal and inferential and the cooperative learning strategy for writing over speaking. According to previous research (Weinstein, McDermott, and Roediger, 2010), cooperative learning can positively affect learning as a useful teaching method and can lead to

progress in language development. Therefore, we can deduce that cooperative learning is important for learners. The confidence of learners was improved as their peers could assist them in the generation of questions and they did not feel isolated because of the cooperative learning process. In addition to this, learners had the opportunity to undertake conversation and ask one another questions based on their training in question generation and cooperative learning. This interaction led to, what is termed, 'positive interdependence' (Pan & Rickard, 2018: 710-756) where perceived success is dependent on the interchange of information with another learner.

Moreover, using the cooperative strategy to generate questions revealed that, when using five groups of learners to assist each other in generating questions of a literal and inferential nature, the learners improved their usage of English tenses significantly with five seeming to be a number that correlates optimally with this strategy. This significant development was witnessed when learners read the original text and then concentrated on their question generation where they then showed greater care in their selection of the correct tense. The significant improvement in question generation from the learners has, in turn, the effect of motivating them further and increasing their focus (Nazari, 2012: 281-288). Therefore, we can assume that there is a strong correlation between the strategy of question-generated learning and an improvement in the usage of English tenses by the learners.

Conclusion

Data analysis showed that using a question-generation strategy helped participants perform noticeably better in terms of reading comprehension and the use of English tenses. Additionally, in this study, experimental groups that received the treatment during instruction performed better in both reading comprehension skills and using English tenses. The findings of this study demonstrated that the question-generation strategy had a favorable impact on participants' learning from teachers' lessons because it can help participants pay closer attention to the content of the text, generate higher order questions, improve metacognition, and activate prior knowledge. Moreover, awareness of question-generation strategies can improve participants' reading comprehension. On the other hand, question-generation strategies can be effectively used to promote participants' reading comprehension in EFL classes so that the participants can become active and independent readers in the classroom. Therefore, both students and teachers can benefit from using this research as a positive learning experience when it comes to reading comprehension in EFL settings.

Recommendations

In order to have more accurate results, future researchers should think about using a larger sample. Additionally, no qualitative information about the students' perceptions or attitudes toward the teaching of the question-generating strategy was gathered for this study. As a result, future studies of this kind should include a u qualitative component.

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