

The effects of question generating strategy instruction on EFL freshmen's reading comprehension and use of English tenses

ผลของการสอนกลวิธีการตั้งคำถามที่มีต่อความเข้าใจในการอ่านภาษาอังกฤษและ การใช้รูปกาลของนิสิตใหม่ที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ

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บทคัดย่อ

การวิจัยกึ่งทดลองครั้งนี้มีวัตถุประสงค์เพื่อศึกษาผลการสอนกลวิธีการตั้งคำถามที่มีต่อความเข้าใจในการอ่านภาษาอังกฤษและการใช้รูปกาล (tenses) โดยรูปแบบการวิจัยกำหนดให้มีการทดลองก่อนและหลังดำเนินการโดยมีกลุ่มควบคุม กลุ่มตัวอย่างเป็นนิสิตจำนวน 40 คน ในมหาวิทยาลัยแห่งหนึ่งทางภาคตะวันออกเฉียงเหนือของประเทศไทย ที่ลงทะเบียนรายวิชาภาษาอังกฤษพื้นฐาน 1 ในภาคการศึกษาที่ 1 ปีการศึกษา 2553 คัดเลือกโดยวิธีการเลือกแบบเจาะจง (purposive sampling) เครื่องมือที่ใช้ในการรวบรวมข้อมูลประกอบด้วยแบบทดสอบก่อนเรียนและหลังเรียนด้านความเข้าใจในการอ่านภาษาอังกฤษ และแบบทดสอบก่อนเรียนและหลังเรียนด้านการใช้ Tenses ดำเนินการทดลองเป็นระยะเวลา 2 ลัปดาห์ วิเคราะห์ข้อมูลด้วยสถิติพื้นฐาน และทดสอบสมมติฐานด้วยสถิติทดสอบ t-test ผลวิจัยพบว่า นิสิตกลุ่มทดลองที่ได้รับการสอนกลวิธีการตั้งคำถาม มีคะแนนทดสอบหลังเรียนสูงกว่านิสิตกลุ่มควบคุม ทั้งในด้านการอ่านและการใช้ Tenses อย่างมีนัยสำคัญทางสถิติที่ระดับ .01

Abstract

This quasi-experimental study was conducted to find out if the instruction of a question generating strategy would help to enhance university EFL freshmen's English reading comprehension and their ability to use English tenses. A pre-and post-test with control group design was employed. The samples, purposively selected, were 40 undergraduate students who registered for Foundation English I course during the first semester of academic year 2010. They were divided into an experimental group ($n = 20$) and a control group ($n = 20$). The data collection tools used included a pre-and post-English reading

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comprehension test and a pre-and post-test of English tenses. The two groups were administered the pre-tests before the experiment which lasted two weeks, and then the post-tests, upon completion of the experiment. The data were analyzed using descriptive statistics including frequency, mean, and standard deviation. An independent samples t-test was used to test the hypotheses. The results were that the experimental group gained statistically higher scores from the post-tests of both reading comprehension and use of English tenses than the control group ($p<.01$).

Keywords: Reading Comprehension, Question-Generating Strategy, English Tenses

Introduction

Reading entirely in English is particularly important for Thai university EFL students because of the large number of course texts, references and internet materials appearing in that language. In the EFL context, it is well documented that one best way to learn English, other than living among its speakers, is to read extensively in it (Nuttall, 1996) and that reading is the most important source of language learning (Alderson, 1984 and Grabe, 1991). In the views of others (Dubin & Bycina, 1991) academic reading or reading for the purpose of learning has become one of the most important methodological topics in the fields of teaching English to speakers of other languages.

Although the importance of reading is well-recognized, many Thai university EFL students' English reading comprehension skill is still poor. This indicates difficulties in fulfilling the demands of their studies. To help enhance their reading comprehension skill, English teachers are expected to get familiar with efficient strategies that can boost the level of the students' reading comprehension. Reading per se, according to constructivist learning theory, is an interactive process that goes on between the reader and the text, resulting in comprehension. The text presents letters, words, sentences, and paragraphs that encode meaning. The reader uses knowledge, skills, and strategies to determine what that meaning is. Readers who interact with the texts while reading are actively engaging themselves in the meaning construction, and thus become successful in their reading. Over the decades, research has converged on the notion that effective reading comprehension involves the construction of meaning (Adams, 1990;

Spires & Donley, 1998; Wittrock, 1990; Wood, Pressley, & Winne, 1990). On effective way to engage L2 readers in active reading is using a question generation strategy. Broadly defined, question generation refers to having readers generate questions during reading (National Institute of Child Health and Human Development, 2000). In this regard, generating questions while reading is generally accepted as an effective strategy to improve L2 readers' reading comprehension and to lead to being an active and good reader. (Duke & Pearson, 2002). More recent emphasis of the teaching and learning for understanding has been on the importance of student-generated questions (Commeysar, 1995; Kamalizad & Jalilzadehb, 2011; Look, 2011; Resenshine et al., 1996; Urlaub, 2012; Watts et al., 1997; Yeh & Lai, 2012). Research has also shown that students who are taught to generate questions while reading and after reading outperform those who receive no training (Kamalizad & Jalilzadehb, 2011; Pearson et al., 1992). When students generate questions, they first identify the kind of information that is significant enough to provide the substance for a question. They then pose this information in question form and self-test to ascertain that they can indeed answer their own questions. Question generating is a flexible strategy to the extent that students can be taught and encouraged to generate questions at many levels. Student-generated questions are a way for teachers to assess students' comprehension during or after activities or an entire unit of study. It also provides opportunities for reinforcement of what has been learned and leads students to higher order of thinking. It is for this very reason that teachers use questions to check comprehension and assist students in understanding the literal messages of texts.

Basically in relation to reading comprehension, there are three levels of questions – literal, inferential, and applied questions (Day, 2005). The former is the type of questions most often used in classrooms. Literal question is the one in which the words in the questions and the words for the answers are usually located in the same sentence. Inferential question is the type of questions in which the answer needs reading between the lines. Readers need to read at least two sentences to find the answer because they have to put information together. Applied questions can be answered through the readers' use of background knowledge and experiences. They have to analyze and synthesize information in order to answer the question. Inferential and applied questions

are higher level questions because they require readers to think critically and deeply. When asking questions, students are pondering relationships among different aspects of the text, hypothesizing, focusing on details and main ideas, using attention selectively (Van den Broek, Tzeng, Risden, Trabasso, & Basche, 2001) and possibly anticipating conclusions about a text.

Thus, questions might contribute to reading comprehension for they facilitate active processing of the text. Moreover, the generation of specific types or levels of questions (i.e., “high level” or “thought provoking”) is conducive to higher text comprehension. In that case, types and forms of questions being taught could explain the instructional effects in previous studies. On the question forms, there are five (Day & Park, 2005), including Yes/No, Alternative, True/False, Wh-, and multiple choice questions. Yes/No questions are the ones requiring a Yes or a No answer. Alternative questions are two or more Yes/No questions connected with or: for example, Is he a teacher or an engineer? True or False questions are the ones requiring a confirmation whether the question is true or not. Wh-questions or information questions are the ones beginning with what, when, where, why, who, and how. Information questions are valuable in helping students with inferential and applied comprehension of texts. They are often used as follow-up questions after Yes/No, True/False and alternative questions. Multiple choice questions are based on other forms of questions which can be a wh-question with a choice.

Of the five question forms, the wh-question form is most suitable for teaching students to learn to generate because they are high-level questions which are part of the students’ intelligence (Arlin, 1990; Sternberg & Swirling, 1996). High-level questions are interchangeably used with Interpretive questions which require students to delve beyond what is explicitly stated and “read between the lines” to develop a richer understanding of the message read. This is often referred to as “critical thinking” and/or “higher order thinking” (Harris & Hodges, 1995).

However, to know the forms and types of questions is one thing; to be able to use the correct tenses in them is another. It was often found from the researcher’s first-hand experience that the forms or types of questions written by the students were mostly correct, but the tenses they used were not. For instance, the original sentence in the text was in the simple past, but the

question the students generated was in the simple present. Such questions containing incorrect use of tenses were, therefore, flawed. The researcher assumed that teaching the students to practice generating good and correct questions would help them select appropriate tenses to use in their question generation.

In order to teach the students how to generate a good and correct question based on the English tense used in each sentence in the text, two types of questions are generally asked: Yes/No questions, and information questions. Yes/No questions are appropriate for bringing the students' attention to the tense used in a sentence. They must make sure that the tense used in the question they generate is the same as the one used in the target sentence in the text. Information questions can encourage the students to think while searching for the answer to the question. Information questions were, therefore, the targeted questions the students in this research were taught.

Apart from the difficulties relevant to reading comprehension, some Thai EFL learners feel that the English language has complicated rules of tenses. They do not know why the English language needs such complicated rules whereas many other languages do not need such rules. From his long experience with teaching Thai undergraduate students, the researcher of the present study found that most Thai EFL students cannot use English tenses correctly and satisfactorily as seen in their written replies to the writing parts in the mid- and final examinations. More frequent examples of the student's poor use of English tenses are found in a reading section, part of a foundation English I class, in which the students are usually asked to generate their own questions based on the reading selection in each unit. Not many students were able to produce correct interrogative sentences with correct use of the tenses required. This first-hand experience was the catalyst for the researcher to do the present study. More importantly, no research has been found on the association between reading comprehension and use of English tenses of EFL students.

Purposes

This study was carried out in response to the notion that student-generated questions are more effective in improving their reading comprehension, and that when students practiced more of question generation, their knowledge of English

tenses was supposed to increase. Therefore, the present study attempted at testing the effects of student-generated questions on their reading comprehension and use of English tenses, based on the following two hypotheses: 1) The students who were taught question-generating strategy would perform significantly better than the ones who did not receive the teaching of the strategy as measured by their post-reading comprehension test scores; and 2) the post-test scores of English tenses of the students who were taught question-generating strategy would be significantly higher than their pre-test scores of English tenses.

The following key terms as well as their definitions used in this study included:

1. Question generating strategy refers to the written questions generated by the students during their reading of the assigned texts based on the two types of forms - Yes/No question and Information question.
2. Reading comprehension refers to the reading comprehension of expository texts measured from the students' pre and post reading comprehension test scores.
3. Use of English tenses refers to the students' ability of the use of 12 English tenses measured from the students' pre- and post-English tense test scores.

Methodology

Participants

Forty students were purposively selected from two Foundation English I classes, at a university in the northeast of Thailand, during the first semester of academic year 2010. 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 students were divided into an experimental group ($n = 20$) and a control group ($n = 20$) by means of ballot drawing. The samples were selected based on the basis of the English final examination grades from the previous semester.

Design

A quasi-experimental pre-test and post-test with control group design (Marion, 2004) 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-tests.

Instruments

The instruments used included a reading comprehension test and an English tense test. The two tests were used as both pre and posttests. The reading comprehension test (Cornbrash's alpha co-efficient = .82) was adapted from part I of the First Certificate English (FCE) Test (Cambridge University Press, 2008). 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 English tense test (Cornbrash's alpha co-efficient = .81) was developed by the researcher. There were two parts in the test. Part I consisted of 15 items of 4-multiple choice questions, and Part II was a cloze passages with 15 blanks in which the students had to fill with the correct verbs given in parentheses.

Procedure

After the selection of the participants, the pre-tests (comprehension and English tense), which lasted 90 minutes were administered to them. Then, for 50 minutes, twice a week, for two weeks, the experimental group learned how to generate questions with the researcher teaching them, using the expository passages printed out from the web site www.breakingnewsenglish.com. During the instruction (during the after-class time in the evening) the students were asked to divide themselves into 5 groups. Each group, cooperating with one another, 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 in order to bring the students' attention to what they had done wrongly in each question. The control group did not receive any

instruction, but attended their regular class. After two weeks, post-tests on reading comprehension and use of English tenses were administered to both groups.

Data Analysis

Descriptive statistics, means, standard deviations, and percentage were used to analyze the data from the pre-and post-tests. 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 ($\bar{x} = 22.30$, S.D. = 2.53) were significantly different from those of the students in the control group ($\bar{x} = 15.65$, S.D. = 2.45), $t = 8.425$, $p < .01$. Based on this finding, hypothesis 1 was consequently accepted. These results suggested that instruction of 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=20)	22.30	2.53	25	17	8.425**	.000
Control (n=20)	15.65	2.45	21	12		

** $p < .01$

2. Effect of QGS 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 will 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 ($\bar{x} = 23.70$, S.D. = 2.22)

scored significantly higher than the students in the control group ($\bar{x} = 14.95$, S.D. = 3.15), $t = 10.137$, $p < .01$.

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.
Experiment (n=20)	23.70	2.22	27	18	10.137**	.000
Control (n=20)	14.95	3.15	21	9		

** $p < .01$

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

Discussion and Conclusion

The results in this study show that question-generating strategy instruction can significantly improve the Thai university freshmen students' reading comprehension and use of English tenses. The results regarding the significant increase of reading comprehension test scores truly suggested that it was worth teaching the students to generate questions literally and inferentially. The results of the present study were consistent with what Wong (1985), Nolan (1991), and Charmello (1993) found in their studies that the teaching of question-generating strategy to EFL students really helped to improve their reading comprehension. The new finding in this study was that teaching the students to generate both literal and inferential questions in writing rather than speaking, and also in a cooperative learning method, led to a significant increase in both reading comprehension and use of English tenses. This highlights the importance of cooperative learning among the students. Research has shown that cooperative learning can be an effective learning and teaching method by which language learning achievement can be expected (Johnson & Johnson, 1989; Nazari, 2012; Sharan, 1980; Slavin, 1995). As a result of cooperative learning, the students did not feel as if they were left alone, but were confident because friends could help in the process of question generating activities. Also because of

cooperative learning arranged in an ideal group size; that is 3-5 students per group, the students had the chance to discuss and ask each other focusing on the types and forms of questions they were trying to generate. In this context, they perceived what is called positive interdependence (Johnson, Johnson & Stanne, 2000); that is the perception that the success of one depended on the success of the other.

Another new finding is that the question generating strategy taught in a cooperative manner in which 5 different groups of students helped one another to generate as best literal and inferential questions as they could was really conducive to a significant improvement in the students' use of English tenses. This could be interpreted that when the students focused their attention on the correct tenses as used in the original text, they were more careful and selective in using the right tenses in their generated questions. That the students could be better in generating and answering their own questions is also regarded as a form of motivation (Look, 2011). Nevertheless, in regard to the relationship between the use of English tenses and question generating strategy instruction, the researcher did not find any relevant research.

Implications

Pedagogical implications

The question-generating strategy should be taught to L2 students at all levels. For a basic English course in which reading is not separated as a single skill, the teacher can teach question-generating strategy by assigning the students to group themselves into several sub-groups of about 3-5 members and generate questions, specifically in writing. Questions generated orally will not be convenient for other members in the same group to review the tense aspects. With questions generated in writing, the students should be encouraged to generate both literal and inferential questions, but inferential questions should be more emphasized than literal questions in terms of reading comprehension practice because inferential questions are high order thinking questions which are generally more effective than literal questions. Literal questions asked students to identify a specific event from the text. In this regard, the students did not spend much time finding the answers because they were directly there in the text. On the contrary, inferential questions asked students to infer implicit

meaning from the text and, being evaluative questions, required students to evaluate a situation and make a judgment. However, the researcher suggested here that literal comprehension questions are undoubtedly important and need being taught because they are like a stepping-stone to more advanced comprehension skills that must also be examined to continue to see growth in students' performance. Moreover, in terms of improving the students' English tense ability, literal questions seemed to be easier for the students to generate than inferential ones, especially when it comes to the question form such as a Yes/No question.

Implications for further research

This study did not investigate which method of cooperative questioning was more effective: spoken or written. Future research, therefore, should investigate the effects of teaching question-generating strategy through cooperative learning on the reading comprehension and use of English tenses of university EFL students. Specifically, the investigation should focus on the comparison between the questions generated by a single student and by a group of students in order to determine the effectiveness of the strategy taught.

Also in this study, no qualitative data were collected regarding the students' opinions or attitudes towards the question-generating strategy instruction. Future research of this type should, therefore, incorporate qualitative aspect in an investigation. Finally, with the widespread use the Internet and WWW, future research should use a Web-based instruction as a means for delivering the question-generating strategy instruction. Further research may make use of the abundant online reading resources such as online newspapers and magazines in their study, and the objectives of the study may be to explore the effects of having EFL learners generate questions based on the developed online reading training course using a Web-based instruction. In so doing, an investigation should be carried out regarding the effects of a Web-based instruction of question-generating strategy on the reading comprehension and use of English tenses of the students.

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