The Development of English Critical Reading Abilities Using the QUEST Analysis for English Majors

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Abstract

The research objectives were to: 1) compare the students' English critical reading abilities before and after learning by using the QUEST analysis and 2) survey the students' opinions toward learning by using the QUEST analysis. The participants, selected by simple random sampling, comprised 33 third-year students majoring in English, Faculty of Humanities and Social Sciences, Nakhon Pathom Rajabhat University. The research instruments consisted of: 1) nine lesson plans using the QUEST analysis, 2) a questionnaire used for surveying the students' opinions toward learning by using the QUEST analysis and 3) a reflective learning log used for obtaining more information about the students' opinions. The statistics applied for data analysis were paired-samples t-test, mean, and standard deviation. The results revealed that 1) the students' English critical reading ability after learning by using the QUEST analysis was significantly higher than before learning by using the QUEST analysis at the 0.05 level and 2) the students' opinions toward learning by using the QUEST analysis were at a high level ($\bar{x}$ = 3.84, S.D. = 0.43).

Keywords: English critical reading, the QUEST analysis, English majors

1. Introduction

In the 21st century, communication and information exchange of people in the world are rapid and diverse. The obtained information could be valuable or useless. Thus, in order to successfully gain that variety of information, the recipients of this era must be able to consider, identify, and evaluate whether the information they receive is correct and reasonable or not. Those who can evaluate or judge the information properly are required to have skills in reading, especially in critical reading (Niumnoy, 2008 and Zheng, 2014). However, in Thailand, most students still lack critical reading abilities, which could be seen from the results of the assessment of reading in the PISA 2012 (Programme for International Student Assessment 2012). According to the PISA 2012, the results showed that Thai students had an average of 441 points of critical thinking which was below the average of OECD (Organization for Economic Co-operation and Development). Particularly, in terms of high reading ability (Level 5 and 6), only 0.9 percent of Thai students were capable of this level (The Institute for the Promotion of Teaching Science and Technology, 2013). As a result, the PISA scores of Thai students were ranked at 50 from 65 countries (Thairath Online, 2016). In addition, based on the experiences of researchers and colleagues in teaching Critical and Analytical Reading Course (1553114), which focus on developing students' critical reading abilities by enabling them to critically think and express ideas toward the reading texts and judge the values of the texts correctly, for the students majoring in English of Faculty of Humanities and Social Sciences at Nakhon Pathom Rajabhat University, it was found that 23.17 percent of students received Grade C (60.00-64.99 points) and 22.51 percent of them received Grade D (50.00-54.99) from this course. According to the evaluation criteria of Nakhon Pathom Rajabhat University, these results of the evaluation are considered fair and very poor levels, respectively.

For the aforementioned reasons, the researcher is interested in finding appropriate methods or strategies to teach English critical reading to the students, and would like to see how much those methods or strategies could improve the students' English reading abilities. The researcher, then, studied the research on the development of critical reading abilities and found that the QUEST analysis proposed by Gary Barkhuizen (2002), a lecturer from Department of Applied Language Studies and Linguistics, University of Auckland in New Zealand, could be one of the teaching methods that helps students read texts critically. The QUEST analysis is a teaching process that helps students read and write critically based on leading questions, which move the students forward along the path of successful reading and writing, as well as a collaborative instruction in which the teacher provides students support or solution to a problem. The QUEST analysis takes the following form of leading questions: Q (What Questions do you have after reading the article?), U (What in the article are you Unhappy about?), E (Are there any Excellent points that got you Excited?), S (What are the Strengths of the article?), T (What are the most important Themes in the article?). Section Q asks students to think about questions they may have after reading the texts. Section U focuses on negative evaluation and appreciation that the students have toward the texts. Section E focuses on positive opinions toward specific points or parts of the texts. Section S also directed on the positive opinions, but this time on the text as a whole. Finally, Section T asks students to pay close attention to the content, conclusion, and implication of the texts (Barkhuizen, 2002).

With an emphasis on critical reading, the leading questions of the QUEST analysis cover all the aspects of this area. The questions lead the students to reading comprehension and provide them opportunities to evaluate, appreciate, value, and judge what they have read properly. The students could also write and voice their opinions toward the reading texts both objectively and subjectively. Furthermore, the QUEST analysis using leading questions is consistent with the concept of Walker (2003), Corley & Rauscher (2013), and Watanabe-Crockett (2018) that the use of questions is a learning technique that can lead the students to critical thinking.

The researcher, thus, intended to develop English critical reading abilities of the third-year students majoring in English, Faculty of Humanities and Social Sciences, Nakhon Pathom Rajabhat University by using Barkhuizen's (2002) QUEST analysis. The study helped the students with English critical reading skills, which are essential for 21st century learners to apply for learning and living in a cross-border communication society appropriately.

2. Objectives

The objectives of this research were to: 1) compare the students' English critical reading abilities before and after learning by using the QUEST analysis and 2) survey the students' opinions towards learning by using the QUEST analysis.

3. Materials and Methods

This section will present the participants, research instruments, data collection, and data analysis as follows:

3.1 Participants

The participants of the study, selected by simple random sampling, consisted of 33 third-year students majoring in English, Faculty of Humanities and Social Sciences,

Nakhon Pathom Rajabhat University. They were studying Reading for Text Interpretation and Attitudes (1553103) in the second semester of 2017 academic year.

3.2 Research instruments
There were four research instruments in this study:
        3.2.1 Lesson plans

        3.2.1.1 Lesson plans using the QUEST analysis were divided into 9 units which were all written by the researcher.

        3.2.1.2 The objectives of the lessons, gained from the synthesis of the QUEST analysis and the critical reading elements proposed by the scholars: Mckee (1966), Spache & Spache (1969), Harris and Smith (1986), Gunning (1992), Adams and Patterson (2005), and Samanpan (2006), consisted of: 1) to identify the main idea, 2) to distinguish facts from opinions, 3) to identify the author's purpose, 4) to anticipate outcome, and 5) to evaluate and judge the reading.

        3.2.1.3 Eight text topics from 14 topics proposed by CEFR (Common European Framework of Reference for Languages) for B2 (Vantage) level were selected by five teachers and finally by the students. They consisted of: 1) Travel, 2) Free time; entertainment, 3) Places, 4) Language, 5) Daily life, 6) Health and body care, 7) Education, and 8) Personal identification (Council of Europe, 2001). Then eight texts which its content related to those text topics were selected from four textbooks and all texts were calculated reading ease readability based on the criteria developed by Flesch's (1948). The selected texts contained the ease of readability of: standard level (60-70), fairly difficult (50-60), and difficult (30-50). The selection was done according to the three levels in order to find the texts that suit the different levels of the students' abilities.

        3.2.1.4 Each lesson plan was designed and divided into four steps of reading teaching: 1) Warm-up focusing on organizing activities to start the lesson, 2) Pre-reading focusing on activities to create an atmosphere of learning and elicit the students' background understanding about the reading texts, 3) While-reading focusing on activities that enable the students to understand the reading texts by using various techniques as well as guiding questions to find the main points and the details of the texts, and 4) Post-reading focusing on critical reading activities using Barkhuizen's (2002) the QUEST analysis.

        3.2.1.5 The content and teaching activities of all lesson plans were verified and validated by three experts from IOC conducting. Accuracy of the content and relevancy to the purpose was 1.00.

        3.2.2 English critical reading test (Pretest and posttest).

        3.2.2.1 English critical reading test (Pretest and posttest) was designed according to the Test Specifications. The test contained 32 questions: 30 items are multiple choices and 2 items are writing test. They were also verified and validated by three experts. Accuracy of the content and relevancy to the purpose was between 0.67-1 IOC.

        3.2.2.2 The test was taken by the students of pilot group. Its difficulty was between 0.30-0.65, discrimination was between 0.25-0.85, and reliability was 0.79.

3.2.3 Questionnaire on the students' opinions toward learning using the QUEST analysis was divided into three aspects of 20 items: 1) the atmosphere of teaching and learning (5 items), 2) the activities of teaching and learning (5 items), and 3) the benefits from teaching and learning activities (10 items). Then it was verified according to the content specification by the advisor and validated by three experts. Accuracy of the content and relevancy to the purpose was between 0.67-1.00. And after pilot study, reliability of the questionnaire was 0.95.

3.2.4 Reflective learning log was conducted and used to gain more information about the students' opinions toward learning by using the QUEST analysis. It consisted of five guiding questions and self-assessment part. The guiding questions were: 1) What did you learn from the lesson?, 2) How did you learn?, 3) How did you feel about learning and teaching activities?, 4) What were your problems and difficulties?, and 5) What were your solutions to the problems and difficulties?. The reflective learning log was then verified the content specification by the advisor.

3.3 Data collection
The processes of data collection were shown as follows:
3.3.1 The researcher explained the students about the research objectives and teaching methods as well as learning activities using the QUEST analysis and learning assessments.

3.3.2 Pretest on English critical reading was done with the students or participants, and the students' scores were collected.

3.3.3 The research was conducted by using nine lesson plans with the QUEST analysis for 11 weeks (three periods per week). The learning activities were done following the steps constructed for each lesson plan. After each lesson, the students were asked to record their opinions toward learning using the QUEST analysis on the given reflective learning log.

3.3.4 After the students finished learning all lessons, they were asked to complete the questionnaire in order to express their opinions toward learning by using the QUEST analysis.

3.3.5 Finally, posttest on English critical reading, which was the same as the pretest, was taken by the students. The students' posttest scores were then compared to their pretest scores in order to find out the development of their English critical reading abilities after learning by using the QUEST analysis.

3.4 Data analysis
Data analysis of this study was done as follows:
3.4.1 To compare the English critical reading abilities of the students before and after learning by using the QUEST analysis, the researcher applied paired-samples t-test.

3.4.2 To analyze the data obtained from the students' questionnaire, the researcher used the values of mean ($\bar{x}$) and standard deviation (S.D.) based on the concept of Best (1997).

3.4.3 To find out more about the students' opinions toward learning by using the QUEST analysis, the reflective learning log was used in content analysis.

4. Results and Discussion

4.1 Results of the study

This section will present the results of the study as follows:

4.1.1 The comparison of the students' English critical reading abilities before learning by using the QUEST analysis.

To answer this objective, 33 students were asked to read the texts by using the QUEST analysis, the researcher was the teacher who taught them following the constructed lesson plans for 9 weeks. Then, the students were asked to take pretest and posttest for their English critical reading abilities. The results were presented in the Table 1.

Table 1: The comparison of the pretest and posttest on English critical reading abilities

Tests	Total Score	$\bar{x}$	S.D.	$\bar{D}$	S.D. $(\bar{D})$	t-test	df	Sig.
Pretest	50	18.85	6.84	11.85	3.99	17.01*	32	0.00
Posttest	50	30.70	6.96					

* Statistical significance at the .05 level

From Table 1, the mean score of the students' English critical reading abilities from pretest was 18.85 and that of the posttest was 30.70. This indicated that the students had higher scores in their English critical reading abilities. Thus, the t-test analysis showed that there was a statistically significant difference between the pretest and posttest at the level of .05.

4.1.2 The students' opinions toward learning by using the QUEST analysis that enhances English critical reading abilities

To answer this objective, the students were asked to complete the questionnaire on opinions toward learning by using the QUEST analysis. The results were presented in the Table 2.

Table 2: The students' opinions toward learning by using the QUEST analysis

Opinions toward learning by using the QUEST analysis	$\bar{x}$	S.D.	Interpretation	Rank
Atmosphere of teaching and learning				
1. Students can participate in activities.	4.12	0.67	High level	1
2. Students are happy with asking questions about the reading texts.	3.42	0.57	Moderate level	4
3. Students have a chance to ask questions, discuss, and share ideas.	4.00	0.67	High level	2
4. Students can learn by themselves with a teacher's supports.	3.88	0.74	High level	3
5. Students are eager to learn and learn happily.	3.39	0.70	Moderate level	5
Total mean of atmosphere of teaching and learning	**3.76**	**0.51**	High level	
Activities of teaching and learning				
1. Teaching activities provide clear directions and	3.76	0.71	High level	3

easy to follow.				
2. Teaching activities are based on proper order.	3.58	0.87	High level	5
3. Teaching activities are various and interesting.	3.70	0.77	High level	4
4. Teaching activities are consistent with objectives and suitable for content and time.	3.85	0.67	High level	2
5. Teaching activities encourage students to use critical thinking in reading, be able to criticize and evaluate the reading texts.	4.33	0.60	High level	1
Total mean of activities of teaching and learning	**3.84**	**0.51**	High level	
Benefits from teaching and learning activities				
1. Students are able to develop ability of reading for comprehension, which is the basis of critical reading.	4.21	0.55	High level	1
2. Students are able to identify the main idea.	3.64	0.60	High level	10
3. Students are able to distinguish facts from opinions.	3.79	0.74	High level	7
4. Students are able to identify the author's purpose.	3.76	0.66	High level	8
5. Students are able to tell pros and cons of the reading texts.	3.88	0.70	High level	5
6. Students are able to express opinions toward the reading texts.	3.97	0.68	High level	4
7. Students are able to anticipate or predict the outcome of the reading texts.	3.70	0.59	High level	9
8. Students are able to apply the QUEST analysis to reading in daily life.	3.85	0.94	High level	6
9. Students are able to critically read the publications, as well as online media in daily life.	4.00	0.83	High level	3
10. Students have higher critical reading abilities.	4.03	0.64	High level	2
Total mean of benefits from teaching and learning activities	**3.88**	**0.45**	High level	
Total mean of the three aspects	**3.84**	**0.43**	High level	

From Table 2, the results showed that the students' opinions toward learning using the QUEST analysis were at the high level ($\bar{x}$ = 3.84, S.D. = 0.43).

In addition, based on the analysis of the students' reflective learning log in order to know more about their opinions toward learning by using the QUEST analysis, it was found that their opinions were both positive and negative as in the following examples.

For positive opinions, the students thought that the QUEST analysis and teaching activities used by the teacher were interesting. They could learn more about how to read critically, and with the leading questions of the QUEST analysis, they also had more ideas to read and think about the questions helping them read and judge the reading texts in a proper way.

Example:

"I was fun. Because I can share my own ideas and listen to other's as well. About QUEST, I think it's an excellent way to make me understand something or get more ideas than the past. It suits for this subject. So I think it's really useful for me."

(Student 17, week 6)

On the other hand, the students also shared their negative opinions toward leaning using the QUEST analysis. Some of them felt that although the QUEST analysis was useful for them, it was still difficult for them to think and ask the questions. They found that their created questions were sometimes not relevant to each section of the QUEST analysis because they still confused with the leading questions under some sections of the QUEST analysis.

Example:

"My problem is some words or phrases don't translate directly. Sometimes I may be confused. And in principle, use the QUEST to ask or create questions. I will create questions that are irrelevant and often mistake or wrong."

(Student 27, week 6)

4.2 Discussion of the study
This section will present the discussion of the study in response to the research objectives as follows:
      4.2.1 According to the objective no.1: to compare the students' English critical reading abilities before and after learning by using the QUEST analysis, it was found that the students' English critical reading abilities after learning by using the QUEST analysis was higher than that before learning by using the QUEST analysis at the level of .05 of significance. The obtained result was due to the following reasons:

      4.2.1.1 The constructed lesson plans by using the QUEST analysis focused on practicing and enhancing the students' English critical reading abilities following five main objectives: 1) to identify the main idea, 2) to distinguish facts from opinions, 3) to identify the author's purpose, 4) to anticipate outcome, and 5) to evaluate and judge the reading. The five objectives illustrated the critical reading behaviors which are the needed skills and abilities for the students. These skills and abilities also require continuously training for the benefit of learning and living properly in the current changes of technology (Niumnoy, 2008). In addition, the researcher applied Barkhuizen's (2002) the QUEST analysis as part of post-reading activity in order to practice the students' English critical reading abilities. The QUEST analysis enabled the students to read critically by asking the questions, thinking, analyzing, judging, and evaluating the pros and cons of the reading texts. This was consistent with the five objectives mentioned before.

      4.2.1.2 The constructed lesson plans also focused on using leading questions that helps the students read the texts with understanding, evaluate the texts, and then present opinions toward the reading texts critically (Barkhuizen, 2002). The usefulness of using the leading questions of the QUEST analysis in this study was also confirmed by Walker (2003), Corley & Rauscher (2013), and Watanabe-Crockett (2018) who stated that questioning is a technique for organizing learning activities that can lead the students to critical thinking. In addition, it is also consistent with the research conducted by Sawasdiwong (2004) and Sayanrujee (2012) that questioning technique helps improve critical reading abilities of the students.

      4.2.2 According to the objective no. 2: to survey the students' opinions towards learning by using the QUEST analysis, it was found that the students' opinions toward learning using the QUEST analysis were at the high level ($\bar{x}$ = 3.84, S.D. = 0.43). When considering each aspect, the results can be discussed as follows:

4.2.2.1 In the aspects of the atmosphere of teaching and learning, the total mean was at the high level ($\bar{x}$ = 3.76, S.D. = 0.51). Considering each item, the highest mean was students can participate in activities ($\bar{x}$ = 4.12, S.D. = 0.67), this result echoed the idea of Barkhuizen (2002) that the QUEST analysis is one of teaching concepts for the development of critical reading and writing based on "scaffolding" of Vygotsky (1987). According to Barkhuizen (2002), the term "scaffolding" refers to collaborative instruction in which the teacher guides the students to a solution to completion of an activity. Therefore, in this study, the researcher conducted the instruction by emphasizing the activities for the students to participate in reading and asking questions after self-reading by using the QUEST analysis as a guideline. The teacher then was responsible for observing and assisting the students when they had problems, this provided the students opportunities to participate in all activities. However, the lowest mean of the item under this aspect was students are eager to learn and learn happily ($\bar{x}$ = 3.39, S.D. = 0.70). The result might be due to the students' feeling of pressure since they were nervous and anxious to ask questions and express their own opinions toward the reading texts. This reason can be supported by the student's opinions written in their reflective learning log, for example:

"I was a little nervous by learning this chapter but it's still fun. Because I can make a lot of questions about this passage by using QUEST. I've never felt nervous and fun in the same time before but this chapter. It's fun to curious about the passage and it makes me confuse that do I understand and interpret this passage as other classmates? And I think QUEST can makes me reading something with critical thinking more."

(Student 17, week 9)

"My problem is some words or phrases don't translate directly. Sometimes I may be confused. And in principle, use the QUEST to ask or create questions. I will create questions that are irrelevant and often mistake or wrong."

(Student 27, week 6)

4.2.2.2 In the aspects of the activities of teaching and learning, the total mean was at the high level ($\bar{x}$ = 3.84, S.D. = 0.51). Considering each item, the highest mean was teaching activities encourage students to use critical thinking in reading, be able to criticize and evaluate the reading texts ($\bar{x}$ = 4.33, S.D. = 0.60). It was consistent with the research result of Barkhuizen (2002) that the QUEST analysis helped to promote critical reading. Moreover, one reason causing the teaching activities encourage students to use critical thinking in reading might come from the teaching activities done following the five objectives, which allowed the students to have critical reading abilities and be able to read, criticize, and evaluate the reading texts properly. On the other hand, the lowest mean was teaching activities are based on proper order ($\bar{x}$ = 3.58, S.D. = 0.87). The result might be caused by post-reading activities that integrated with the QUEST analysis. According to Barkhuizen's (2002) suggestions, the QUEST analysis could be adapted to use in different contexts and not to be presented as a static framework. The students can create their own questions from QUEST to TESQU or TESUQ, and they can delete the sub-questions in each section based on their understanding, proficiency level and needs as well as the characteristics of the reading texts. Thus, this might be the reason why the students were confused about the sequence of teaching activities.

4.2.2.3 In the aspects of the benefits from teaching and learning activities, the total mean was also at the high level ($\bar{x}$ = 3.88, S.D. = 0.45). Considering each item, the highest mean was students are able to develop ability of reading for comprehension, which is the basis of critical reading ($\bar{x}$ = 4.21, S.D. = 0.55). This might be resulted from the QUEST analysis which not only covers critical reading behaviors, but also provides the leading questions for the reader to understand and grasp the main idea of the reading texts, for example, Section T (What are the most important <u>Themes</u> in the article?). From this reason, by using the QUEST analysis, most students agreed that they could first develop reading comprehension and then it could help them develop critical reading. However, it seemed contrast with the previous result since the lowest mean was students are able to identify the main idea ($\bar{x}$ = 3.64, S.D. = 0.60). Although identifying the main idea is one of reading skills for comprehension, it became the problem of the students in this study. The reason might be from the students' writing skill. That is most students could do better and correctly when they were asked to do exercises to identify the main idea by choosing the given answer of direct stated main idea which obviously found from the texts. On the other hand, the students always did wrong if the main idea was not stated in the texts and they needed to read and write the sentence to identify the main idea by themselves. For this reason, it is possible that reading skill and writing skill are separated skills, and they rely on different abilities. Students who can read may not write to convey what they have read correctly. Furthermore, the lack of knowledge about vocabulary and sentence structures can be a factor that affects students' poor writing.

5. Conclusion

As shown in this research, the researcher demonstrated the development of English critical reading abilities by using the QUEST analysis for English majors. The objectives of the study were to: 1) compare the students' English critical reading abilities before and after learning by using the QUEST analysis and 2) survey the students' opinions towards learning by using the QUEST analysis. The results revealed that English critical reading abilities of the students after learning by using the QUEST analysis was higher than that before learning. In addition, the student's opinions toward learning by using the QUEST analysis were at the high level.

All the results confirmed that using the QUEST analysis proposed by Barkhuizen (2002) was a suitable and interesting approach to teach students because this approach provided the students with opportunities to practice their critical reading in daily life. It trained students to use leading questions to ask their own questions if they might have after reading the texts. The leading questions also enabled the students to read critically starting from basic reading skills to higher reading skills of critical reading. That is, by using the QUEST analysis, the students could read and understand the texts by identifying the main idea, and then they could perform critical reading abilities by thinking, anticipating, criticizing, judging, and evaluating the reading texts properly. Thus, the results of this study could be an initial thought for the development of critical reading abilities for students of the era of the 21st century.

6. Limitations of the study

Regarding limitations of the study, the researcher suggests that The QUEST analysis is a leading question process that can develop critical reading and writing abilities. However, asking questions may be a learning technique that is not familiar to Thai students. Therefore, teaching using the QUEST analysis must be continued for a longer period of time in order to allow the students to become familiar until they can ask questions themselves automatically after reading the various texts and can develop themselves as a critical reader.

7. Recommendations for further study

Based on the results of this study, some recommendations are necessary to be made as follows:

1. Further studies on critical reading abilities using the QUEST analysis for students should be conducted in long term or more than one semester to allow students become familiar with the learning process and to obtain clearer results.

2. The results of using the QUEST analysis obtained from this study should be applied to teaching and learning in other subjects such as Thai and Sciences.

3. The use of the QUEST analysis should be carried out by future researchers to enhance critical reading abilities along with the development of writing abilities.

8. Acknowledgements

9. Authors

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