CHANETTREE KANJANASIRI[1]

The Development of English Reading Exercises in Thematic English (E20202) for Grade 9 Students of Princess Chulabhorn's College Phitsanulok, Thailand

The purposes of the research were 1) to develop and test the efficiency of English Reading Exercises(ERE) in Thematic English (E20202) for grade 9 students of Princess Chulabhorn's College Phitsanulok (PCCPL) according to standard criteria 75/75, 2) to compare the students' English reading competency before and after using ERE in E20202, and 3) to survey the students' satisfactions toward them. The subjects consisted of the randomly selected class of 23grade 9 students of PCCPL during the first academic year 2014. The instruments used for this experiment were 6 units of the ERE in E20202, lesson plans for the ERE in E20202, pre-test and post-test of 6 units which were objective tests consisted of 4 alternatives in the ERE in E20202, the English reading proficiency test and a questionnaire on the subjects' satisfactions toward the ERE in E20202.[2] The results of the study were as follows: 1) the efficiency of the ERE in E20202 was 82.54 for the English reading formative test and 85.22 for the post-test. Therefore, the ERE in E20202 constructed were highly effective, 2) the students' English reading proficiency after using the ERE in E20202 was significantly higher than that before using the ERE in E20202 constructed at 0.01 level, 3) the students' satisfactions toward the ERE in E20202 were very highly satisfied.

1. Introduction

English is a unique language that can be communicated all over the world. In Thailand, English is essential for life, for instance; international relations for social activities, cultures, economics and politics. To follow the progress of science and technology as well as to educate in high level (Department of Curriculum and Instruction Development, 2002) has been set English as a foreign language and applied the curriculum and teaching to accord with information need by using the Basic Education Core Curriculum B.E. 2551 (2008). (Ministry of Education, 2008) In addition to English for communication need listening, speaking,

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[1] Teacher of English Language, Princess Chulabhorn's College, Phitsanulok, Thailand; *dr.wireka@gmail.com*

[2] The experimental process and data collection were conducted as follows. The subjects were given a 30 items English reading proficiency pre-test. Then, the 6 units of ERE in E20202 were used for 18 class sessions in 18 weeks. After the completion of each unit, the English reading formative test was administered to measure the subjects' English reading achievement and a questionnaire was used for surveying the subjects' satisfactions on the ERE in E20202. The t-test was used to analyse the data to measure the subjects' English reading proficiency

reading, and writing skill. White (1981) gave an opinion that reading skill is important and is used for knowledge acquisition, reading for entertainment from printing media. Moreover, for English as a foreign language, Thai students use less listening, speaking and writing skill than reading (Supansiri Wattakanon, 2002). Students, especially, need to use reading skill for English text books or journals. In addition, reading is more important for higher education because if the students haven't enough ability to read, they cannot succeed in their education (Eskey, 1970; Cochran, 1993).

The research about comparison of English competency in Asia by Language Institute of Chulalongkorn University (LICU) found that Thai youth's average TOEFL scores was 498 while Cambodian youth's and Vietnamese's were 501 and 511 (Amornvit Nakorntup, 2002). National Institute of Educational Testing Service (NIETS) studied the point average of Ordinary National Educational Test (O-NET) of grade 9 students in PCCPL in academic year 2012 and found that the highest score was 78 and the lowest score was 8 in English test. It was 35.01 of average point and 28.00 of Median. It needed to be improved (Department of Academic in PCCPL, 2013). From this problem, several educators refer to the causes as follows: 1) teachers don't understand the teaching method, 2) students are different in society and reading competency, and 3) there are a few teaching materials for reading development, etc. These correspond with Pantani Wihokto (2003) who studied about the big problem toward failure in English teaching and found that there was a shortage of skillful teachers and unready students who had different knowledge.

According to all accounts, the researcher needed to improve curriculum and reading technique by selecting and creating suitable passages or contents to correspond with school curriculum and grade 9 students' need. The researcher interested in creating and developing the ERE in E20202 for grade 9 students and aimed to develop the students' reading competency in daily life and to guide to the teachers.

Objectives:

(1) To develop and test the efficiency of the ERE in E20202 for grade 9 students of PCCPL according to 75/75 standard criterion.

(2) To compare the students' English reading competency before and after using the ERE in E20202.

(3) To survey the students' satisfaction toward the ERE.

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before and after using the ERE in E20202. The average of the six English reading formative test scores was compared with the post-test scores in order to determine the efficiency of the ERE in E20202.

2. Research hypotheses, definitions and expected outcomes

H1: The ERE in E20202 for grade 9 students of PCCPL has 75/75 standard criterion
    (Chaiyong Brahmawong, et al, 1977).

H2: Students' English reading competency is higher after using the ERE in E20202

H3: The students are satisfied with all the six of the ERE in E20202.

ERE means English reading exercises in E20202 for grade 9 students. These exercises according to students' need and curriculum are to practice the students' reading skill. They include 6 units: 1) Science & Technology, 2) Food & Health, 3) Sport & Leisure, 4) Lifestyle & Culture, 5) English for Edutainment and 6) English for Job Application. Each exercise consists of topic, explanation for teacher and student, learning objectives, pre-test, exercises and post-test.

English reading test means the test referred learning objectives of E20202. It is an objective test with 60 items consisted of 4 multiple choices each. It takes 120 minutes to evaluate the reading competency before and after using the ERE.

The efficiency of the ERE according to 75/75 standard criterion means that the first 75 is the sum of the average scores from the students' scores of each unit in the ERE and the last 75 is the sum of the average scores from the sample's English reading test which is managed after using the ERE.

Satisfaction questionnaire means the students' satisfaction questionnaire toward the ERE. The questionnaire consists of 3 aspects: content, learning activities and usefulness. It's a qualified 5 rating scale from Likert.

This research by creating the ERE in E20202 for grade 9 students gains advantages as follows:

(1) to gain the efficient ERE in E20202 for grade 9 students

(2) to be guidelines for English teacher's reading teaching in lower high school.

3. Theories and related researches

Kanchana Kaewchamrat (2008) studied the development of ERE focusing on content-based instruction: scientific and environmental issue in English 42104 for grade 11 of 34 students in Princess Chulabhorn's College Nakhonsrithammarat, Thailand found that the efficiency of this exercise was 83.01/79.85 (highest level). The students' English ability was significantly higher after using the exercise at the 0.05 level. In addition, the students' satisfaction toward

the exercise was high level. Satiwimon Kangli (2001) studied the development of reading exercise for communication from English news and magazines, grade 11 students of Wat Raikhing Wittayakom School, Nakhonpatom, Thailand and the result found that the efficiency of the exercise was 75.74/75.53 (high level). The students' English reading ability was significantly higher after using the exercise at the 0.05 level. Furthermore, the students' opinion of the exercise was high level. Wattana Lengwan (2012) studied the development of ERE in E33102 fundamental English in grade 12 students of Trium Udom Suksa Pattanakarn Nanthaburi, Thailand. The objective was to develop the ERE for the sample of 40. The instruments and data collection were 1) proficiency test with 4 alternative choices of E33102 Fundamental English in grade 12, 2) post-test, 3) the ERE in E33102 and 4) 18 lesson plans. The average, percentage, standard of deviation (S.D) and T-test Dependent Samples were used to analyse the data. The result found that students' satisfactions were highest level at $\overline{X} = 4.71$.

4. Research methodology

Population: 89 of grade 9 students in PCCPL, in the first semester of academic year 2014

Samples: 23 of grade 9 students in PCCPL, in the first semester of academic year 2014 by simple random sampling

Study variable: Independent variable was learning activities of the ERE in E20202 for grade 9 students of PCCPL

Dependent variables were efficiency of the ERE in E20202 for grade 9 students of PCCPL in 75/75 standard criterion, the students' competency of The ERE in E20202 and students' satisfaction toward the ERE in E20202.

Term of research: It took the first semester of academic year 2014, for 18 class sessions in 18 weeks (18 hours).

The research instruments were:

(1) ERE in E20202 for grade 9 students of PCCPL, including 6 units- 1) Science & Technology, 2) Food & Health, 3) Sports & Leisure, 4) Lifestyle & Culture, 5) English for Edutainment and 6) English for Job Application.

(2) Lesson plans for the ERE in E20202 consisted of 18 plans per 18 hours.

(3) Pre-test and post-test of 6 units consisted of 4 alternatives- 10 items for each unit.

(4) The English reading proficiency test with 4 alternatives consisted of 30 items within 60 minutes for pre-test and post-test.

(5) Questionnaire for surveying the students' satisfaction toward the ERE in E20202

5. Assessment of research instruments

The researcher made and developed the qualified tool as follows:

(1) ERE in E20202 for grade 9 students of PCCPL was initiated from Foreign Language Department of Basic Education Core Curriculum B.E. 2551 (A.D.2008) and PCCPL's curriculum. Secondly, the researcher analyzed the learning outcomes, contents, course description and theme in E20202 which related to reading skill for 6 units (6 exercises). Then, the 5 experts checked the contents by 5 rating scale and found that the overview of content analysis was highest level ($\overline{X} = 4.73$, S.D $= 0.45$). The next, the researcher tried out to find the efficiency of ERE in E20202 (E1/E2) by individualized trial (1:1) from 3 students of PCCPL in 1st semester in academic year 2013. The result was E1/E2 =77.24/83.33. When trying out of the small group (1:10), the result was E1/E2 = 82.50/85.17 and when trying out of the big group (1:100), the result was E1/E2 = 82.50/85.21 that passed the 75/75 standard criterion. Eventually, the researcher improved and produced the complete ERE in E20202

(2) Lesson plans for ERE in E20202 consisted of 18 plans per 18 hours. They were created according to the school curriculum, then proofread and checked the validity of content and evaluation by other teachers in PCCPL. The 5 experts checked validity and improved the lesson plans. Then, the researcher tried out with 24 grades 9 students of the 1st semester in academic year 2013 corrected information and used the lesson plans with 23 grades 9 students of the 1st semester in academic year 2014, collect data and analysed as well as improved better.

(3) ERE proficiency test: The researcher started from planning and designing the test according to the content and assessment of learning outcomes. First, the test consisted of 60 items with 4 alternatives and selected the high quality to be 30 items by trying out and eliminating or improving. Then, when checking the content validity by 3 experts, it found that IOC was 0.67-1.00, item difficulty (PR) was 0.20-0.80 and item discrimination (R) was above 0.20. The reliability (KR-20) was 0.938.

(4) Pre-test and post-test of ERE in E20202: Each exercise included pre-test and post-test was created and developed by studying the related theory and research, Analysing content, learning outcomes of ERE in E20202. To plan and design the test was 12

items of objective test with 4 alternatives in each exercise and selected to be 10 items for trial and analysis. The 3 experts checked content validity to be 0.67-1.00 and checked the reliability (KR-20). The result was 0.8679.

(5) A qualified 5 rating scale questionnaire for the students' satisfaction toward ERE in E20202. The 5 experts checked consistency of items and found that IOC was 0.80-1.00 and used for 24 grades 9 students of PCCPL in academic year 2013. After using ERE in E20202, the reliability by α-coefficient was 0.8796.

6. Collection of data

Research design was one group pre-test and post-test design

$$O_1 \qquad X \qquad O_2$$

X = ERE in E20202 trial

O_1 = Pre-test

O_2 = Post-test

Trial operation: the researcher used ERE in E20202 for 23 grades 9 students of PCCPL in the 1st semester of academic year 2014 as follows:

(1) The students took pre-test of ERE proficiency test and the researcher recorded the students' scores,

(2) Before using ERE in E20202, the students took the pre-test in each unit and the researcher recorded the scores

(3) To manage activities by using ERE in E20202 was taken 18 hours (one hour a day).

Collect the points and assess the activities for efficiency analysis:

(1) Students had the 10 items post-test in each unit,

(2) When finishing learning activities, students had the post-test of ERE proficiency test,

(3) Students assessed the qualified 5 rating scale questionnaire of satisfaction toward ERE in E20202.

7. Analysis and statistics

The effectiveness (E1/E2) was used to test each of the ERE in E20202 with 75/75 performance efficiency criterion

Formula:

$$E_1 = \frac{\dfrac{\sum X}{N}}{A} \times 100 \qquad\qquad E_2 = \frac{\dfrac{\sum F}{N}}{B} \times 100$$

Index of consistency (IOC) used for finding content validity

Formula:

$$IOC = \frac{\Sigma R}{N}$$

(The question which must be 0.50-1.00 is available.)

Item difficulty (P) and item discrimination (R) used for the test

Formula:

$$p = \frac{R}{N}$$

(P should be 0.2-.0.8)

KR-20 was used for the reliability of the test

Formula:

$$r = \frac{R_H - R_L}{N_H}$$

Cronbach's Alpha coefficient was used for the questionnaire of students' satisfaction toward ERE in E20202

Formula:

$$r_{tt} = \frac{n}{n-1}\left\{1 - \frac{\sum pq}{S_t^2}\right\}$$

The criteria for interpreting the mean were set as follows: 4.50-5.00 = Very Highly Satisfied; 3.50-4.49 = Highly Satisfied; 2.50-3.49 = Moderately Satisfied; 1.50-2.49 = Fairly Satisfied; 1.00-1.49 = Not at All Satisfied.

8. Results and discussion

8.1. Developing and testing the efficiency of the ERE in E20202 for grade 9 students of PCCPL according to 75/75 standard criterions

The study was conducted to 23 students of PCCPL during the first semester of academic year 2014 and E1/E2 was used in this study. The results of E1/E2 were found to be 84.64/86.52 in unit 1, 80.72/85.65 in unit 2, 80.20/87.39 in unit 3, 83.14/83.91 in unit 4, 82.97/84.35 in unit 5 and 83.55/83.48 in unit 6. Overall, it was 82.54/85.22.

Unit	Efficiency	
	E1	E2
1. Science & Technology	84.64	86.52
2. Food & Health	80.72	85.65
3. Sport & Leisure	80.20	87.39
4. Lifestyle & Culture	83.14	83.91
5. English for Edutainment	82.97	84.35
6. English for Job Application	83.02	83.48
Total	82.30	85.22

Table 1: The efficiency of the ERE in E20202 classified each unit (n=23)

From the study, it was higher than the given 75/75 standard criterion and these results were consistent with Sasiwimon Kangli (2001) showing that the efficiency of exercise in reading English news and magazines for grade 11 students in Wat Raikhing Wittaya, Nakhonpatom Province, Thailand was 75.54/75.53. To sum up, there were significant differences at the 0.05 level. Moreover, the students' opinion toward her exercise was high.

8.2. Comparison of the students' English reading competency before and after using ERE in E20202

Table 2 The results of comparison the students' English reading competency before and after using ERE in E20202 in the first semester of academic year 2014 (n=23)

Student	Pre-test	Post-test	difference	t-test dependent	Sig
1	17	23	6	**25.392****	**0.000**
2	15	25	11		
3	16	24	8		
4	18	26	8		
5	13	18	5		
6	18	27	9		
7	15	24	9		
8	13	22	9		
9	15	23	8		
10	14	23	9		
11	16	25	9		
12	11	23	12		
13	15	25	10		
14	16	26	10		
15	18	27	9		
16	13	22	9		

Student	Pre-test	Post-test	difference	t-test dependent	Sig
17	18	25	7	**25.392****	**0.000**
18	15	25	10		
19	14	23	9		
20	14	24	10		
21	17	25	8		
22	15	24	9		
23	12	25	13		

($t_{.01,22}$ = 2.0739)

Table 2: The results of comparison the students' English reading competency before and after using ERE in E20202 in the first semester of academic year 2014 (n=23)

The results of pre-test and post-test were different, and paired t-test was 25.392 at the 0.01 level significantly. It showed that the students' English reading competency in 23 grades 9 students of PCCPL was statistically significant difference. It showed that they were higher level after using the ERE in E20202. It was consistent with Kanchana Kaewchamrat (2008) who studied the development of ERE focusing on content-based scientific and environment issues in English 42104 for 34 grades 11 students of Princess Chulabhorn's College Nakhon Sri Thammarat, Thailand. The results of the study were the efficiency of the ERE was 83.01 for the English reading formative test and 79.85 for the post-test. Therefore, the ERE constructed were highly effective. The students' English reading proficiency after using the eight of ERE was significantly higher than that before using them at the 0.05 level and the students' opinions toward them were at high level.

8.3. Survey the grade 9 students' satisfactions toward the ERE in E20202

items	$\bar{\mathrm{x}}$	S.D	Interpreting	Rank
1. The sequential form of using ERE in E20202.	4.78	0.42	Very Highly Satisfied	4
2. The ERE in E20202 includes the easy explanations	4.61	0.50	Very Highly Satisfied	6
3. The students' better comprehension in the content after using the ERE in E20202.	4.91	0.29	Very Highly Satisfied	1
4.The variety of the ERE in E20202 and the consistency of learning outcomes	4.87	0.34	Very Highly Satisfied	2
5. The difficulty of the ERE in E20202 is suitable for the students.	4.65	0.49	Very Highly Satisfied	5
6. Self-directed learning from the ERE in E20202	4.83	0.39	Very Highly Satisfied	3
7. The ERE in E20202 makes the students self analyse.	4.52	0.67	Very Highly Satisfied	8
8. The ERE in E20202 makes the students self language practice.	4.57	0.51	Very Highly Satisfied	7
9. The suitable and various assessment of learning	4.39	0.66	Highly Satisfied	10
10. Learning the ERE in E20202 happily	4.48	0.67	Highly Satisfied	9
Average	4.66	0.26	Very Highly Satisfied	

**Table 3: The results of students' satisfactions toward the ERE in E20202
(n = 23)**

Overall student satisfaction was at very high level ($\bar{x}$ = 4.66, S.D = 0.26). When considering each item, it was found that all were highly to very highly satisfied. The highest average ($\bar{x}$ = 4.91, S.D = 0.29) was the students' better comprehension in the content after using the ERE in E20202. The second was the variety of the ERE in E20202 and the consistency of learning outcomes ($\bar{x}$ = 4.87, S.D = 0.34). The third was self-directed learning from the ERE in E20202 ($\bar{x}$ = 4.83, S.D=0.39), and the last ranking was the suitable and various assessment of learning ($\bar{x}$ = 4.39, S.D = 0.66). It showed that the students were most satisfied with the ERE in E20202. It was consistent with Watana Lengwan (2012) who studied the development of English Reading Exercise in E33102 Fundamental English in Grade 12 Students of Trium Udom Suksa Pattanakarn. Nonthaburi School, Thailand. The result was found the 40 students' satisfaction toward the reading exercise in E20202 was at very high level ($\bar{x}$ = 4.71).

9. Suggestions and recommendation for further research

According to this study, the researcher would like to suggest to create more self-analysis thinking and happiness learning in the ERE.

Further studies should be conducted the writing exercise with analysis thinking and happiness learning.

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