

Development of English Reading Instruction by Using Critical Reading Techniques Based on Japanese Cultures for Technical Students in Tertiary Level

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Abstract

The purposes of this research were 1) to develop and test efficiency of English reading instruction by using critical reading techniques based on Japanese cultures for technical students in tertiary level, 2) to compare the students' English reading achievement before and after using English reading instruction by using critical reading techniques based on Japanese cultures for technical students in tertiary level and 3) to survey the students' satisfaction toward the English reading instruction in 8 units.

The subject consisted of 30 first year engineering students of Thai-Nichi Institute of Technology, Bangkok, during first academic year 2010. The instruments used for this experiment were 8 units of English reading instruction, the English reading achievement test, and a questionnaire was used for surveying the subjects' satisfaction on the efficiency of the constructed material.

The experimental process and data collection were conducted as follows. The subjects were given a 30 item English reading achievement pretest. Then, the 8 units of English reading instruction by using critical reading techniques based on Japanese cultures were used for 16 class sessions in 16 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' satisfaction on English reading instruction.

The t-test was used to compare the subjects' English reading achievement before and after using English reading instruction by using critical reading techniques based on Japanese cultures for technical students in tertiary level. The average of the eight English reading formative test scores was compared with the posttest scores in order to determine the efficiency of the constructed materials. The mean and standard deviation of the questionnaire scores were used to measure the students' satisfaction toward the constructed materials.

The results of the study were as follows:

1. The efficiency of the material was 81.25 for the English reading formative tests and 82.22 for the posttest. Therefore, English reading lessons constructed were highly effective.
2. The students' English reading achievement after using the eight English reading lessons was significantly higher than that before using the eight English reading lessons constructed at 0.05 level.
3. The students' satisfaction towards the eight English reading lessons was highly positive.

Keywords : English Reading Instruction, Critical Reading Techniques, Japanese Cultures, Tertiary Level

Introduction

Thai-Nichi Institute of Technology has been operated under the philosophy of "disseminating knowledge and building economic base". One of the TNI objectives is to generate human resources who have abilities in technological advancement and industrial management. Moreover, TNI concept of program administration is to focus on the students' language skills- the students will be able to communicate in Japanese and English. In order to achieve in the TNI objectives, TNI has provided English for Communication course which are divided into 3 core courses for students from all faculties as well as provided elective courses for students from each faculty to enroll (TNI Student Handbook: 2010: 24)

In the past decades, there has been sustained interest in promoting reading as a significant and viable means of language development for foreign language learners. Reading in English as a foreign language has been greatly emphasized in traditional FL teaching, and until today EFL reading is the core of instruction in many countries (Susser & Robb, 1990). Today, this instruction focuses on teaching readers rather than teaching texts (Hass & Flower, 1988). To be more specific, we now

teach reading skills and strategies to understand some elements related to the process like content, textual features, rhetorical elements, and cultural background (Susser & Robb, 1990).

Some researchers classify reading strategies according to the time they are used - before, during, or after reading. Others categorize these strategies as either global or local according to the part of the text on which they focus (Young & Oxford, 1997). Also, there exists a common distinction between cognitive and metacognitive strategies. The former are those which help the reader construct meaning from the text. Aebbersold and Field (1997) maintain that while reading, people's minds constantly engage in different complex processes. They start by processing information at the sentence level by using bottom-up strategies. They focus on identification of a word's meaning and grammatical category, on sentence structure, on text details, and so forth. During this process, readers constantly check their own schemata to see if the new information fits using top-down strategies such as background knowledge and prediction (Barnett, 1988; Carrell, 1989).

Furthermore, critical reading techniques function to monitor and regulate critical strategies

(Devine, 1983; Flavell, 1979; Fredricks, 2007). These include checking the outcome of any attempt to solve a problem, planning one's next move, monitoring the effectiveness of any attempted action, testing, revising, and evaluating one's strategies for learning (Baker & Brown, 1984). For example, skimming any text for key information requires a critical strategy, while evaluating the effectiveness of skimming as a technique involves a critical strategy (Devine, 1983). In first-language and second-language contexts, there have been many studies on the effects of critical strategy instruction on L1 and L2 reading. Some of these studies (Carrell, Pharis, & Liberto, 1989; Palincsar & Brown, 1989) revealed that non-proficient L1/L2 readers either do not have the knowledge about reading strategies or generally employ bottom-up strategies. The findings suggest that strategy instruction should focus on comprehension monitoring to help non-skilled readers overcome their difficulties.

Teaching-learning English language of TNI students has problem in reading and they also lack of motivation in reading because instructional contents are not interesting. The contents are not suitable to culture and to using in daily life of TNI students. Wanida Duanglit (2001) advocated that problem in teaching reading was instructional contents because difficulty of content and it was not suitable to recent situation and the learners were not interested and did not understand culture of language. Thus, instructional management must depend on learner's interesting and ability that make motivation in reading of the learner.

In conclusion, the researcher created English reading instruction based on critical reading the topic about Japanese culture which passed checking from experts for study improvement in

reading of TNI students in first semester, academic year 2010 and the results derived from research will be guideline in improvement and development instruction and instructional materials next occasions.

Purposes

1. To develop and find effectiveness of English reading instruction on Japanese cultures for first year engineering students based on 75/75 criteria
2. To compare the ability in English reading of the students before and after using English reading instruction on Japanese cultures for first year engineering students, Thai-Nichi Institute of Technology, Bangkok.
3. To study satisfaction in English reading instruction on Japanese cultures for first year engineering students, Thai-Nichi Institute of Technology, Bangkok.

Research Questions

1. Does English reading instruction on Japanese cultures for first year TNI engineering students have efficiency in the provided criteria?
2. Is the ability in English reading of first year TNI engineering students after using English reading instruction on Japanese cultures higher than the ability in English reading before using English reading instruction on Japanese cultures?
3. How do the first year TNI engineering students have satisfaction with English reading instruction on Japanese culture which researcher creates?

Hypothesis

1. English reading instruction on Japanese cultures for first year TNI engineering students which

the researcher creates has the efficiency in the provided criteria.

2. The ability in English reading of first year TNI engineering students after using English reading instruction on Japanese cultures is higher than the ability in English reading before using English reading instruction on Japanese cultures.

3. The first year TNI students have a good satisfaction with English reading instruction on Japanese cultures which the researcher creates.

Research Design

This study was to develop and experiment English reading instruction by using critical reading techniques on the topic about Japanese cultures for first year engineering students, Thai-Nichi Institute of Technology, Bangkok. It had the steps of research processing as follows.

Population and Sample

Population was first year engineering students, Thai-Nichi Institute of Technology, Bangkok in the first semester, academic year 2010, 280 students from 13 classes.

Sampling was 30 first year TNI engineering students in the first semester in academic year 2010 derived from simple random sampling technique.

Variables

Variables in this study were as follows:

The ability in English reading of first year engineering students before and after using English reading instruction by using Critical Technique on the topic about Japanese Culture.

The Satisfaction of first year engineering students toward English reading instruction by using

Critical Technique on the topic about Japanese Culture.

Instruments

1. Eight lessons of English reading instruction by using Critical Technique on the topic about Japanese Culture for first year engineering students, Thai-Nichi Institute of Technology, Bangkok.

2. Ability test in English reading instruction by using Critical Technique on the topic about Japanese Culture (30 items: 30 scores). The duration of the test was 1 hour.

3. Questionnaire constructed by researcher toward satisfaction on English reading instruction by using Critical Technique on the topic about Japanese Culture for first year engineering students, Thai-Nichi Institute of Technology, Bangkok.

Construction and Development of Research Instruments

The researcher developed English reading instruction and then constructed the ability test in English reading before and after learning English reading instruction by using Critical Technique on the topic about Japanese Culture as following principles.

Firstly, the researcher studied the objectives of English reading instruction focused on English reading skill and strategies, especially in reading for main idea, reading for topic sentences, reading for pronoun reference, reading for fact and opinion, reading for sequencing events, reading for author's purposes, reading for inference, and reading for critical reading.

Secondly, the researcher derived eight topics from the survey of needs questionnaire and interview the participants about required topics from

Table 1 first year engineering students. The topics are demonstrated as follows:

Rank	Topic	Mean	S.D	Meaning
1	Japanese Food and drink	4.70	0.44	Strongly agree
2	Japanese Technology	4.63	0.52	Strongly agree
3	Japanese songs and music	4.61	0.58	Strongly agree
4	Japanese fashion	4.55	0.60	Strongly agree
5	Japanese attractions	4.52	0.59	Strongly agree
6	Japanese working style	4.49	0.71	Agree
7	Japanese tradition	4.42	0.69	Agree
8	Japanese lifestyle	4.39	0.75	Agree

Thirdly, these eight topics were modified to suit with first year engineering students by giving the students vocabulary guideline and meaning, simplifying structures of language, finding pictures, and applying the contents with English reading instruction. Then, table of content specification was designed by determining the objectives, contents, topics about Japanese culture, reading skill, reading activities, and evaluation.

Lastly, the constructed table was examined to test IOC by experts and write script of lesson plans for all 8 lessons. Each lesson plan composed of learning objectives, topic and contents, reading activities consisted of Pre-reading activity, While-reading activity and Post-reading activity.

Pre-reading activity emphasized on presenting picture and answering the questions in order to lead the students to lessons and matching vocabulary with pictures.

While-reading was categorized into 5 groups: True/False; Yes/No Question; Information gap; Matching; and Sequencing events.

Post-reading activity was divided into 2 types which were Semantic map and Information table.

Lesson test consisted of multiple choice test, sequencing event, information gap and question answering.

Efficiency test

Efficiency test was used before and after English reading instruction by using Critical Technique on the topic about Japanese Culture. The test was the same set which consisted of 30 items (30 scores). Time duration for the test was 60 minutes. The researcher determined the approach of the test as 1) to study the way of constructing efficiency test on English reading instruction by using Critical Technique on the topic about Japanese Culture based on textbook, journal and related research as an outline to create the test, 2) to create table of test specification included the contents of reading skills to achieve the goals in each lesson, 3) to create one set of efficiency test in English reading followed the table of test specification. The researcher selected difficulty and discrimination of test (P-R value) derived from standard criteria which consisted of 30 items. Five experts examined corrected and improved accuracy, validity and

reliability of language and contents of the test, 4) to select the test that had the difficulty between 0.20-0.80 and rank of discrimination at 0.20 or over. The calculation of the test reliability was used K-R 20 by Kuder-Richardson (Cited Boonriang Khajonsil 2000: 165). Then, efficiency test was used to sampling of the research.

The Satisfaction Questionnaire

The researcher created satisfaction questionnaire in order to investigate satisfaction toward English reading instruction by using Critical Technique on the topic about Japanese Culture from sampling students as 1) to study the outline of constructing questionnaire both closed-end and opened-end based on Best (1986: 168-183). The questionnaire was separated into five rating scales as demonstrated by Likert (cited Best, 1986: 181). The rating scales in questionnaire were

- 5 *refers to strongly agree*
- 4 *refers to agree*
- 3 *refers to moderate*
- 2 *refers to disagree*
- 1 *refers to strongly disagree*

There were four components of satisfaction in English reading instruction by using Critical Technique on the topic about Japanese Culture which were content, instructional design, teaching-learning activities and instructor. The data from the experts was applied with formula as follows.

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

IOC replaces Index of item-Objective Congruence

R replaces Experts' opinions

N replaces Number of experts

The result of the scores under 0.5 from the

experts had to be considered and improved. The data obtained from small group experiment was analyzed to find reliability by using α -Coefficient formula stated by Cronbach (1974: 161). Coefficient of reliability was 0.80

Data Collection

The process of try out

There were three phases of the data collection process on English reading instruction by using Critical Technique on the topic about Japanese Culture for first year engineering students, Thai-Nichi Institute of Technology, Bangkok.

Phase 1

To apply with one TNI student who was not included in sample in first semester, academic year 2010. The student had to study English reading instruction by using critical reading techniques on the topic about Japanese cultures and did the 30 multiple choice test items after that. In this phase, the researcher enabled to investigate behavior, listen to the student's point of view as well as question about the problems during tryout both 8 units and the ability test. The effectiveness of lessons was presented as following table.

Table 2 scores from 8 lesson tests and ability posttest in one student

No.	Scores of each lesson								total	Percent	Posttest scores	Percent
	1	2	3	4	5	6	7	8				
Total score	10	10	10	10	10	10	10	10	80	100	30	100
1	8	7	9	8	9	7	8	8	64	80	24	80
Percent	80	70	90	80	90	70	80	80				

The result of the table found that the student who involved in tryout process of English reading instruction by using critical technique on the topic about Japanese cultures for first year engineering students, Thai-Nichi Institute of Technology, Bangkok got 64 scores out of 80 from 8 lesson tests which was equal to 80%. For the posttest, the student got 24 scores out of 30 which equal to 80%. Hence, the effectiveness of English reading instruction by using Critical Technique on the topic about Japanese Culture for first year engineering students was equivalent to 80.00/80.00. The highest scores were from lesson

3 and 5 (90%). On the other hand, the lowest scores were from lesson 2 and 6 (70 %).

Phase 2

To apply with a small group of 9 students, the students had to study English reading instruction by using Critical Technique on the topic about Japanese Culture and did the 30 multiple choice test items after that. In this phase, the researcher recorded the problems and suggestions in order to improve lessons to be more effective. The students had to do ability posttest which was the same set

Table 3 scores from 8 lesson tests and ability posttest in a small group

No.	Scores of each lesson								total	Percent	Posttest scores	Percent
	1	2	3	4	5	6	7	8				
1	8	7	8	8	7	8	7	7	60	60	21	70
2	8	9	8	7	7	7	8	9	63	63	25	83.33
3	6	8	8	7	6	7	7	8	57	57	26	86.66
4	8	8	8	8	7	5	6	8	58	58	25	83.33
5	9	8	8	9	8	7	9	7	65	65	25	83.33
6	8	8	8	7	8	7	7	8	60	60	20	66.66
7	9	9	8	7	9	8	9	8	67	67	23	76.66
8	6	9	7	7	8	6	7	8	58	58	26	86.66
9	8	7	6	8	7	8	9	8	61	61	25	83.33
Total	70	73	69	68	67	63	69	71	550		216	
Percent	77.77	81.11	76.66	75.55	74.44	70.00	76.66	78.88		76.38		79.99

of ability pretest. The scores derived from each lesson and scores from ability posttest were calculated as 76.38/79.99. The result was considered as good level presented in the following table.

It was found that these nine students were able to get 550 scores out of 720 (76.38 %) from lesson tests. For the posttest, the students got 216 scores out of 270 which equal to 79.99%. Hence, the effectiveness of English reading instruction by using Critical Technique on the topic about Japanese Culture for first year engineering students was equivalent to 76.38/79.99. The highest scores were from lesson 2 (81.11%). On the other hand, the lowest scores were from lesson 6 (70 %).

Phase 3

To apply with sampling of 30 students, the students had to study English reading instruction by using Critical Technique on the topic about Japanese Culture and did the 30 multiple choice test items after that. In this phase, the students had to do ability posttest which was the same set of ability pretest. The time duration was 60 minutes. The researcher, then, analyzed the scores to find out the lesson effectiveness.

Statistic Used in Data Analysis

1. Analysis to find out lesson effectiveness by using E1/E2 formula followed 75/75 criteria.
2. Comparison the ability in English reading of sampling students between pretest and posttest by using t-test which was conveyed by computer program.
3. Data analysis from questionnaire both single item and whole questionnaire which presented a form of rating scale. These rating scales were calculated to find out mean and standard

deviation and then translated based on criteria developed by Best (1986) as follows.

- | | | |
|---------------------|---|---|
| $1.00 \leq \bar{X}$ | < | 1.50 refers students had the lowest satisfaction |
| $1.50 \leq \bar{X}$ | < | 2.50 refers students had low satisfaction |
| $2.50 \leq \bar{X}$ | < | 3.50 refers students had moderate satisfaction |
| $3.50 \leq \bar{X}$ | < | 4.50 refers students had high satisfaction |
| $4.50 \leq \bar{X}$ | < | 5.00 refers students had the highest satisfaction |

4. Content analysis from interview the participants about needs in learning about Japanese culture including required topics constructed to be English reading instruction

Results

The results of the study on English reading instruction by using Critical Technique on the topic about Japanese Culture for first year engineering students, Thai-Nichi Institute of Technology, Bangkok and was divided into three phases as follows.

Phase 1: The result of data analysis for finding efficiency of English reading instruction by using Critical Technique on the topic about Japanese Culture in order to determined criteria by experiment with 30 samplings.

Phase 2: The result of data analysis for comparison the ability in reading English of the 30 samplings before and after learning English reading instruction by using Critical Technique on the topic about Japanese Culture.

Phase 3: The result of data analysis for satisfaction level of the 30 samplings from questionnaire to English reading instruction by using Critical Technique on the topic about Japanese Culture.

Results of the data analysis

Phase 1: The result of data analysis for finding efficiency of English reading instruction by using Critical Technique on the topic about Japanese Culture in order to determined criteria by experiment with 30 samplings. The processes of this phase were as follows:

1. The 30 samplings made lesson tests after learning of each unit in 8 units. Then, statistic used in data analysis consisted of mean (\bar{X}), standard deviation (S.D.), percentage and rank order of scores in each unit. The results presented as below table.

According to the table, it found out that lesson tests of English reading instruction by using

Critical Technique on the topic about Japanese Culture used with the 30 samplings got a high mean score which was over 75% in each unit. The highest score came from unit 8, *Japanese lifestyle* (86%). However, unit 1, *Japanese food and drink*, got the lowest score.

2. The result of data analysis to find out efficiency of English reading instruction by using Critical Technique on the topic about Japanese Culture was derived from the percentage of scores from each unit and the percentage of scores from posttest of the 30 samplings as described in following table.

Table 4 mean (\bar{X}), standard deviation (S.D), percentage and rank order of scores in each unit

Unit	Lesson name	Total score	Mean (\bar{X})	S.D.	%	Rank
1	Japanese Food and drink	10	7.90	0.81	79.0	8
2	Japanese Technology	10	8.50	0.84	85.0	2
3	Japanese songs and music	10	8.02	0.73	80.25	6
4	Japanese fashion	10	8.25	0.63	82.50	4
5	Japanese attractions	10	8.40	0.74	84.0	3
6	Japanese working style	10	7.95	0.84	79.5	7
7	Japanese tradition	10	8.20	0.79	82.0	5
8	Japanese lifestyle	10	8.60	0.77	86.0	1

Table 5 the percentage of scores from each unit and the percentage of scores from posttest of the 30 samplings

No. Score	Scores of each unit								Total score of each unit (80)	Posttest scores (30)	%
	1	2	3	4	5	6	7	8			
	10	10	10	10	10	10	10	10			
1	10	9	8	9	9	7	7	9	68	28	93.33
2	7	9	8	8	8	9	8	10	67	25	83.33
3	8	7	8	9	8	9	8	9	66	25	83.33
4	9	10	7	9	9	7	9	9	69	23	76.66
5	8	10	8	8	9	9	8	10	70	28	93.33
6	8	9	8	9	9	8	10	9	70	26	86.66
7	7	8	9	8	9	7	8	8	64	28	93.33
8	7	7	7	8	8	9	8	8	62	25	83.33
9	8	9	9	9	9	8	8	8	68	25	83.33
10	8	8	7	7	8	8	9	8	63	21	70
11	8	8	8	7	7	8	8	8	62	22	73.33
12	6	7	8	8	8	8	9	10	64	24	80
13	8	8	7	7	8	9	8	8	63	25	83.33
14	8	8	8	8	10	7	7	8	64	27	90
15	7	9	9	8	7	7	7	8	62	24	80
16	8	7	8	9	8	9	8	9	66	25	83.33
17	8	9	9	9	7	7	8	9	66	27	90
18	10	8	8	8	7	7	8	8	64	25	83.33
19	8	8	8	8	8	8	7	8	63	21	70
20	7	8	8	8	8	7	9	8	63	22	73.33
21	7	9	8	8	8	8	7	8	63	22	73.33
22	7	8	7	8	9	8	7	9	63	25	83.33
23	7	8	7	9	8	8	9	8	63	26	86.66
24	8	9	8	8	9	7	8	10	67	28	93.33
25	7	8	8	7	8	8	9	7	62	25	83.33
26	8	8	8	8	9	8	8	8	65	25	83.33
27	9	8	8	8	7	7	8	9	64	23	76.66
28	8	9	9	8	9	8	8	9	68	25	83.33
29	8	9	9	8	9	8	8	9	68	25	83.33
30	7	8	8	8	8	8	8	7	62	20	66.66
Total	234	250	240	244	248	236	242	256	1950	740	
%	78.00	83.33	80.00	81.33	82.66	78.66	80.66	85.33	81.25	82.22	

According to the table, it indicated that total score of each unit from English reading instruction by using Critical Technique on the topic about Japanese Culture used with the 30 samplings was 1950 (81.25%) and the total score of posttest was 740 (82.22%). Therefore, the efficiency of English reading instruction by using Critical Technique on the topic about Japanese Culture in this experiment was 81.25/82.22 which was higher than determined criteria (75/75). It was demonstrated that English reading instruction by using Critical Technique on the topic about Japanese Culture for the first year engineering students, Thai-Nichi Institute of Technology, Bangkok presented very high effectiveness-that followed hypothesis 1.

Phase 2: The result of data analysis for comparison the ability in reading English of the 30 samplings before and after learning English reading instruction by using Critical Technique on the topic about Japanese Culture.

The 30 samplings had to make the ability test before and after learning English reading instruction by using Critical Technique on the topic about Japanese Culture. These two tests were the same set which consisted of 30 items (30 scores). Then, the difference of score from posttest and pretest was calculated in order to compare the 30 samplings' ability in English reading instruction by using Critical Technique on the topic about Japanese Culture. The results presented as below table.

Table 6 score from ability tests (pretest and posttest) and its difference

No.	Score (30)		(D)	No.	Score (30)		(D)
	Pretest	Posttest			Pretest	Posttest	
1	14	28	14	16	18	25	7
2	12	25	13	17	13	27	14
3	12	25	13	18	10	25	15
4	15	23	8	19	12	21	9
5	12	28	16	20	12	22	10
6	15	26	11	21	9	22	11
7	17	28	11	22	17	25	8
8	18	25	7	23	16	26	10
9	16	25	9	24	13	28	15
10	15	21	6	25	18	25	7
11	16	22	6	26	10	25	15
12	10	24	14	27	11	23	12
13	13	25	12	28	12	25	13
14	12	27	15	29	17	25	8
15	14	24	10	30	10	20	10

This table illustrated that there was a higher ability in English reading of each sampling after learning English reading instruction by using Critical Technique on the topic about Japanese Culture. The highest difference of pretest and posttest scores was 16 and the lowest difference scores was 6 out of 30.

deviation (S.D.) were applied in translating data analysis as shown in the following table.

According to the last table, it showed that the mean scores of all eight units was 4.49 (S.D. = 0.60). Consequently, it was summarized that the highest mean score was on unit 4 (\bar{X} = 4.62, S.D. = 0.65). The second highest mean score was on unit

Table 7 score comparison between pretest and posttest, standard deviation, difference and t-test of the 30 samplings

Test	Total score	(\bar{X})	S.D	(\bar{D})	$\frac{S.D.}{(D)}$	t	Sig
Pretest	30	13.47	2.58	11.15	2.85	25.640*	0.000
Posttest	30	24.62	2.19				

* Statistical significance at 0.05 level

This table highlighted that the posttest scores were higher than pretest scores at Statistical significance at 0.05 level (Sig = 0.000 < 0.05). The mean score of posttest equaled to 24.62 which was higher than pretest score (13.47 out of 30). The difference score between pretest and posttest was 11.15 and t-test was 25.640. It indicated that the ability in English reading after learning English reading instruction by using Critical Technique on the topic about Japanese Culture was more effective than before learning which followed hypothesis 2.

Phase 3: The result of data analysis for satisfaction level of the 30 samplings from questionnaire to English reading instruction by using Critical Technique on the topic about Japanese Culture.

The 30 samplings made questionnaire after learning English reading instruction by using Critical Technique on the topic about Japanese Culture in each unit. Then, mean (\bar{X}) and standard

2 (\bar{X} = 4.59, S.D. = 0.63). The lowest mean score was on unit 5 (\bar{X} = 4.37, S.D. = 0.68). Further, the study of samplings' point of view toward English reading instruction by using Critical Technique on the topic about Japanese Culture in four aspects: in instructional design; in content; in teaching-learning activity; and in instructor could be concluded as

1. Instructional design

Overall, it presented a high satisfaction toward instructional design (\bar{X} = 4.46, S.D. = 0.60). The highest statement was Font size and letters are easy to read (\bar{X} = 4.58, S.D. = 0.56) and the lowest one was on the statement of There are varieties of lesson activities (\bar{X} = 4.42, S.D. = 0.63).

2. Content

The overall of this aspect was ranked as a high satisfaction (\bar{X} = 4.46, S.D. = 0.61). The statement of The instructions are clear and understandable was ranked as the highest one (\bar{X} = 4.49, S.D. = 0.59) and the lowest statement was on The sequence of content and exercises in each unit are appropriate

(\bar{x} = 4.45, S.D. = 0.61).

3. Teaching-learning activity

The overall of this aspect was excellent (\bar{x} = 4.51, S.D. = 0.60). The highest mean score was on the statement of Post-reading activity supports students to revise the knowledge of reading skill and be able to apply the skill (\bar{x} = 4.58, S.D. = 0.56) and the lowest mean score was on the statement of While-reading activity enables students to reach the objective reading (\bar{x} = 4.44, S.D. = 0.61).

4. Instructors

The overall of the last aspect was also ranked excellent (\bar{x} = 4.45, S.D. = 0.58). The highest mean score was on the statement of The instructors facilitate the students to do activities on their own (\bar{x} = 4.58, S.D. = 0.57) and the lowest mean score was on the statement of The instructors give a chance to ask questions in the class (\bar{x} = 4.49, S.D. = 0.59). In conclusion, the overall mean score of eight units was 4.49 (S.D.= 0.60). It meant that the point of view of the samplings toward English reading instruction by using Critical Technique on the topic about Japanese Culture was ranked as a high satisfaction which followed hypothesis 3.

Conclusion

According to the study and data analysis, the results of this study were concluded as follows.

1. The efficiency of English reading instruction by using Critical Technique on the topic about Japanese Culture in this experiment was 82.28/82.08 which was higher than determined criteria (75/75). It was demonstrated that English reading instruction by using Critical Technique on the topic about Japanese Culture for the first year engineering students, Thai-Nichi Institute of Technology, Bangkok presented very high effectiveness-that followed

hypothesis 1.

2. The ability in English reading after learning English reading instruction by using Critical Technique on the topic about Japanese Culture was more effective than before learning at statistical significance at 0.05 level which followed hypothesis 2.

3. The point of view of the samplings toward English reading instruction by using Critical Technique on the topic about Japanese Culture was ranked as a high satisfaction which followed hypothesis 3.

Further, the study of samplings' point of view toward English reading instruction by using Critical Technique on the topic about Japanese Culture in four aspects: in instructional design; in content; in teaching- learning activity; and in instructor showed that the mean scores of all eight units was 4.49 (S.D. =0.60).

Discussions

According to the study and data analysis, the results of this study could be discussed as follows.

1. The result of hypothesis 1 presented the efficiency of English reading instruction by using Critical Technique on the topic about Japanese Culture was higher than the determined criteria. In this way, it might concern with reasons as follows.

- 1.1 The contents of English reading instruction by using Critical Technique on the topic about Japanese Culture in 8 units consisted of contents about Japanese culture which the TNI students was be able to analyze the critical view of knowledge and culture including its background knowledge to understand the contents. This is moreover advocated by Banks (2008) who stated

that the critical view of knowledge and culture are necessary for the learner to generate transformative knowledge. In addition, the TNI students were familiar with Japanese culture because they had background knowledge about it which might cause them to be easy to understand (Goodman, 1994; Bosley, 2008).

1.2 The teaching-learning activity in each unit constructed according to English reading theory from the view of the experts such as, Williams (1994); Harris and Sipay (1979); Luke (2000) who anticipated that teaching-learning activity consisted of opening the chance of the learners to study from easy activity to difficult activity in pre-reading activity and asking the question in while-reading activity to checking understanding of the learners. Furthermore, in post-reading stage, the researcher created semantic maps and information chart to help the learners in filling information in the correct way. Moreover, the learner used critical reading to analyze the Japanese culture and differences with Thai culture. In this stage, the learners, therefore, were able to practice to analyze the text critically. This is supported by Luke (2000) and Zhang (2009) who pointed out that Critical reading practices increase resources as a text analyst and critic.

1.3 Instructional design and development of English reading instruction by using Critical Technique on the topic about Japanese Culture conducted in order to experts' views by determined objective learning and pre-reading, while-reading and post-reading activity and the contents about Japanese culture. The learners were able to use a critical reading strategy in learning because learning was a deeply cultural process (Bruner, 1996). Furthermore, learning style in instructional design based on cultural surroundings influence the ways in

which a person thinks and learns (Matsumoto, 2000; Vygotsky, 1987; Berkeley et al., 2010)

2. The result of hypothesis 2 presented the ability in English reading after learning English reading instruction by using Critical Technique on the topic about Japanese Culture was more effective than before learning at statistical significance at 0.05 level which might concern with satisfaction of the learners in learning about interesting topics and required contents. English reading instruction by using Critical Technique on the topic about Japanese Culture integrated teaching English reading with culture which supported the learners to apply both cultural knowledge and critical reading skill in their daily life. This is, however, related with the suggestion of Yamazaki (2005) and Yen (2011) who advocated that learning and learning style were associated with critical ability and critical development.

3. The point of view of the first year TNI engineering students toward English reading instruction by using Critical Technique on the topic about Japanese Culture was ranked as a high satisfaction which followed hypothesis 3. The samplings had a high satisfaction toward English reading instruction because they understood how to use reading strategies. This was also caused a high reading ability in learning English reading instruction which related with the statement of the educational theorist, Honsefeld (1977), who reported that a high reading ability tended to keep the meaning of the passage in mind, read in broad phrases, skip words, and posses a positive self-concept.

Recommendation

According to the study, the useful suggestions for further development and improvement were demonstrated as follows.

1. The results of the study presented that the efficiency of English reading instruction by using Critical Technique on the topic about Japanese Culture was higher than the determined criteria. The content about Japanese culture might be changed depending on generations and period of time. The content about other culture such as, Lao culture, Vietnamese culture, Korean culture, Thai culture, and western culture should be created in English reading instruction for varieties of learning language and cultures.

2. In the further research, the research should study about comparison learning ability and satisfaction in learning English Reading Instruction.

3. The researcher should study about comparison Computer Assisted Language Learning (CALL) and learning by instructor's teaching.

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