CHAPTER 3

METHODOLOGY AND RESULTS

The purpose of this study was to investigate the developing of reading methods of all the second year undergraduate Industrial Education students in the field of Applied Arts, majoring in English and enrolling the course of "Reading 2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL). Furthermore, this study was also designed to investigate whether all the students either with different genders: male and female; or different English reading abilities: high, mid, and low; have a significant influence on the use of reading strategies or not.

This chapter is divided into two main sections. The first section is methodology and the second section is results. The methodology section is consisted of four main parts. The first is population and sample. The second is the instrument of this study. The third is validity and reliability of the questionnaire and the fourth is data analysis and statistical procedures. The second section, the results, presents the research findings of the two main questions: (1) What are the developing reading methods of Industrial Education students at King Mongkut's Institute of Technology Ladkrabang? (2) What are the reading strategies used by the students with different reading abilities while reading an English text? (3) What are the reading strategies used by male and female subjects while reading the text?

3.1 Methodology

3.1.1 Population and Sample

3.1.1.1 Population

The population of this study is the second year undergraduate Industrial Education students studying during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL).

3.1.1.2 Sample

The sample is all 60 second year undergraduate Industrial Education students in the field of Applied Arts, majoring in English and enrolling the course of "Reading 2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL).

3.1.2 Instrument

3.1.2.1 The Questionnaire

The research instrument was the questionnaire. It consisted of two sections. The first section was students' demographic information that included students' gender and reading abilities: high, mid, low. The second section consisted of the developing of reading methods questionnaire adapted from the classification of reading strategies given by O'Malley and Chamot (1990). Since this framework was currently widespread used by various educators for understanding the English reading process and gained information about students' background and how to develop reading methods, in this study, therefore, it was used to interpret the students' developing reading methods when they study "Reading 2" during the first semester of 2015 academic year. The adapted questionnaire consists of 14 statements which include metacognitive strategies, cognitive strategies, and social/affective strategies.

According to these three categories concerned with the developing of reading methods: metacognitive, cognitive and social and affective reading strategies (O'Malley and Chamot, 1990). Of all these three categories, there were 14 statements all together, the first three statements were categorized as metacognitive reading strategies. Statements 4 – Statement 11 were categorized as cognitive reading strategies. The last three statements were categorized as social and affective reading strategies As a result, each statement described particular type of reading methods the students' used when they studied English reading texts.

Furthermore, all students were asked to respond to each statement quickly, without thinking too much about the statements, and they were asked not to change their responses after they marked them.

Last but not least, before answering the questionnaire, the students were emphasized to mark each statement that was best applied to identify their developing reading methods when reading English texts on the basis of a 5-point Likert scale. The scale was ranging from the greatest to the least, as indicated in Table 3.1:

Table 3.1: A 5-point Likert Scale

A 5-point Likert Scale	
Scale	Point
The Greatest	5
Great	4
Moderate	3
Little	2
The least	1

3.1.2.2 Criteria for Interpreting the mean scores

The mean scores derived from the 5-point Likert Scale in the questionnaires were interpreted on the following range based on Jamieson (Jamieson, 2004). The details were as follow:

Table 3.2: Criteria for Interpreting the mean scores

Score	Mean	Levels
5	4.50-5.00	The greatest
4	3.50-4.49	Great
3	2.50-3.49	Average
2	1.50-2.49	Little
1	1.00-1.49	The least

3.1.2.3 Validity and Reliability of the Questionnaire

Every enterprise was used to evaluate the validity of the research instrument to derive the effectual information. For example, questionnaire's construction and development were not only based on the literature review and related research, but also were submitted to three scholars for reexamining instrument's validity and reliability before handing out for pilot project.

3.1.3 Data Analysis and Statistical Procedures

This research was a descriptive research using the questionnaires. All data were analyzed through computer program to find all the results. To answer all the research questions: research question number one to research question number three, statistical

procedures: arithmetic mean and standard deviation were employed. The arithmetic mean also provided average levels of all the students' English developing reading methods.

3.2 Results

The second section, the results, indicates the research the findings of the three main questions: (1) What are the developing reading methods of Industrial Education students at King Mongkut's Institute of Technology Ladkrabang? (2) What are the developing reading strategies used by students with different reading abilities while reading an English text? (3) What are the developing reading strategies used by male and female subjects while reading the text?

The data were analyzed by comparing the values of arithmetic mean, and standard deviation of students' developing reading methods. The findings of the study were presented according to the students' demographic background, and the results of the three research questions mentioned, as follows:

3.2.1 Students' Demographic Background

Table 3.3: The Students' Demographic Background

Students' Demographic Background	N=60	Percent
Gender		
Male	16	26.7
Female	44	73.3
Total	60	100

Reading Ability levels		
High	21	35
Mid	39	65
Low	-	0.00
Total	60	100

Table 3.3 showed the students' demographic background by genders and their reading ability levels. All 60 second year undergraduate Industrial Education Students in the field of Applied Arts, majoring in English and enrolling the course of "Reading2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL) were 16 male students (26.7%) and 44 female students (73.3%). Interestingly, it showed that there were 21 students having high reading ability level (35%) and 39 students having mid reading ability levels (65%). No students having low reading ability level.

3.2 Result of Research Question One: What are the developing reading methods of Industrial Education students at King Mongkut's Institute of Technology Ladkrabang?

To answer the research question one, the data were shown in Table 3.4:

Table 3.4: Students Developing Reading Methods (N=60)

Items	SD.	Means of the subjects' scores	Level	Total means of each reading method	Level
Item 1	0.86	2.90	Moderate	3.15 (Metacognitive Reading Methods)	Moderate
Item 2	1.01	3.15	Moderate		
Item 3	1.15	3.40	Moderate		
Item 4	1.01	3.28	Moderate	3.20 (Cognitive Reading Methods)	Moderate
Item 5	0.76	3.35	Moderate		
Item 6	1.01	3.28	Moderate		
Item 7	0.79	3.45	Moderate		
Item 8	0.88	3.25	Moderate		
Item 9	0.77	3.52	Great		
Item 10	0.89	2.70	Moderate		
Item 11	1.15	2.80	Moderate		
Item 12	0.60	2.67	Moderate	2.89 (Social/Affective Reading Methods)	Moderate
Item 13	0.83	2.87	Moderate		
Item 14	1.02	3.15	Moderate		
Total means				3.13	Moderate

Table 3.4 indicated that the overall developing reading methods of all 60 second year undergraduate Industrial Education students in the field of Applied Arts, majoring in English and enrolling the course of "Reading 2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL) were in moderate level (mean=3.13). However, if considering each item: item1 to item 14, item 9: "I reread the complicated or important sentences many times when reading an English article." was used in at great level (mean=3.45 and 3.52 respectively).

3.3 Result of Research Question Two: What are the developing reading strategies used by students with different reading abilities while reading an English text?

To answer the research question two, the data were shown in Table 3.5 to Table 3.6:

Table 3.5: Students Developing Reading Methods

Classified by High Reading Ability (N=21)

Items	Means of the HRA	Level	Total means of HRA for each reading method	Level
Item 1	3.76	Great	4.22 (Metacognitive Reading Methods)	Great (Metacognitive Reading Methods)
Item 2	4.33	Great		
Item 3	4.57	Great		
Item 4	4.43	Great	3.89 (Cognitive Reading Methods)	Great (Cognitive Reading Methods)
Item 5	3.67	Great		
Item 6	4.33	Great		
Item 7	3.24	Great		
Item 8	4.14	Great		
Item 9	3.90	Great		
Item 10	3.52	Great		
Item 11	3.90	Great		
Item 12	2.81	Moderate	3.07 (Social/Affective Reading Methods)	Moderate (Social/Affective Reading Methods)
Item 13	2.10	little		
Item 14	4.29	Great		
Total means	3.79			Great

Remarks: HRA = High Reading Ability

Table 3.5 indicated the developing reading methods of all 60 second year undergraduate Industrial Education students in the field of Applied Arts, majoring in English

and enrolling the course of "Reading 2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL), classified by reading ability: high and mid. The results identified that the overall developing reading methods of high reading ability students (N=21), were in great levels (mean=3.79). Interestingly, if considering each item: item1 to item 14, most items were used in great level as well.

Table 3.6: Students Developing Reading Methods

Classified by Mid Reading Ability (N=39)

Items	Means of the MRA	Level	Total means of MRA for each reading method	Level
Item 1	2.44	Little	2.54 (Metacognitive Reading Methods)	Moderate
Item 2	2.51	Moderate		
Item 3	2.67	Moderate		
Item 4	2.67	Moderate	2.84 (Cognitive Reading Methods)	Moderate
Item 5	3.18	Moderate		
Item 6	2.72	Moderate		
Item 7	**3.56**	**Great**		
Item 8	2.77	Moderate		
Item 9	3.31	Moderate		
Item 10	2.26	Little		
Item 11	2.21	Little		
Item 12	2.59	Moderate	2.80 (Social/Affective Reading Methods)	Moderate
Item 13	3.28	Moderate		
Item 14	2.54	Moderate		
Total means	2.78			Moderate

Remarks: MRA = Mid Reading Ability

Table 3.6 indicated the developing reading methods of all 60 second year undergraduate Industrial Education students in the field of Applied Arts, majoring in English and enrolling the course of "Reading 2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL), classified by reading ability: high and mid. The results identified that the overall developing reading methods of mid reading ability students (N=39), were in moderate level (mean=2.78). Interestingly, if considering each item: item1 to item 14, item 7: "I translate the complicated English sentences into Thai when reading English." was used in great level.

3.4 Result of Research Question Three: What are the developing reading strategies used by male and female subjects while reading the text?

To answer the research question three, the data were shown in Table 3.7-Table 3.8:

Table 3.7: Students Developing Reading Methods

Classified by Gender (N=60): Male (N=16)

Items	Means of the Male's Scores	Level	Total means of Male in each reading method	Level
Item 1	3.38	Moderate	3.84 (Metacognitive Reading Methods)	Great
Item 2	3.75	Great		
Item 3	4.38	Great		
Item 4	3.75	Great	3.50 (Cognitive Reading Methods)	Great
Item 5	3.81	Great		
Item 6	3.88	Great		
Item 7	3.51	Great		
Item 8	3.63	Great		
Item 9	4.00	Great		
Item 10	2.94	Moderate		
Item 11	3.38	Moderate		

Item 12	2.50	Moderate	3.23 (Social/Affective Reading Methods)	Moderate
Item 13	2.44	little		
Item 14	3.75	**Great**		
Total means	**3.51**		**Great**	

Table 3.7 illustrated the developing reading methods of all 60 second year undergraduate Industrial Education students in the field of Applied Arts, majoring in English and enrolling the course of "Reading 2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL), classified by gender: male and female. The results showed that the overall developing reading methods of male students (N=16), were in great level (mean=3.51). Interestingly, if considering each item: item1 to item 14, it was found that more than half of the items were used in great level as well.

Table 3.8: Students Developing Reading Methods

Classified by Gender (N=60): Female (N=44)

Items	Means of the Female's Scores	Level	Total means of Female in each reading method	Level
Item 1	2.73	Moderate	2.90 (Metacognitive Reading Methods)	Moderate
Item 2	2.93	Moderate		
Item 3	3.05	Moderate		
Item 4	3.11	Moderate	3.02 (Cognitive Reading Methods)	Moderate
Item 5	3.18	Moderate		
Item 6	3.07	Moderate		
Item 7	3.43	Moderate		
Item 8	3.11	Moderate		
Item 9	3.34	Moderate		

Item 10	2.61	Moderate		
Item 11	2.59	Moderate		
Item 12	2.73	Moderate	2.99 (Social/Affective Reading Methods)	Moderate
Item 13	3.02	Moderate		
Item 14	2.93	Moderate		
Total means	2.99		Moderate	

Table 3.8 illustrated the developing reading methods of all 60 second year undergraduate Industrial Education students in the field of Applied Arts, majoring in English and enrolling the course of "Reading 2" during the first semester of 2015 academic year at King Mongkut's Institute of Technology Ladkrabang (KMITL), classified by gender: male and female. It was found that their developing reading methods were in moderate level (mean=2.99).