



Development of Learner-Centered Instructional Model in the English for ASEAN Course for Business English Majors of Buriram Rajabhat University

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Abstract

The research objectives were 1) to develop learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University and 2) to investigate the satisfaction towards the model. The sample group included 59 fourth-year Business English students enrolled in the course in the first semester of academic year 2016. They were selected by using a purposive sampling method. The tools used in data collection consisted of 1) the learner-centered instructional model, 2) model evaluation form, 3) pretest and posttest, and 4) satisfaction assessment questionnaire. Statistics used in data analysis were percentage, mean, standard deviation, t-test, and content analysis.

The results showed that most of the samples were females (93.21%) from group 1 (50.84%). The developed model consisted of 13 lesson plans. The model focused on the instruction of Task Based Learning Instruction, pair-work/group-work, autonomous learning by using technologies, Blended Learning Instruction, rewarding, the use of scoring rubric, and the use of portfolio in authentic assessment, etc. The model had the content validity of 0.84 and Effective Index of 0.50. The samples' satisfaction towards the model in terms of the content was overall at a high level (3.70); the instruction was overall at the highest level (4.66), followed by the teacher aspect that was at the highest level (4.64), and measurement and evaluation in overall at the highest level (4.58), respectively. Suggestion was that the teachers who are interested in the model including schools and educational institutes can apply the model with their courses in the future.

Keywords: Development, Instructional Model, Learner-Centered, English for ASEAN Course



Introduction

At present, many schools and institutes have developed their instructions to be in line with the National Education Act of B.E. 2542 which consisted of 9 chapters and 78 items. The important items in this Act regarding National Education Guidelines included item number 22, 23, and 26 which can be concluded that the main focus in providing education to all learners either through formal, non-formal, and informal approaches shall be based on the idea that the learners are capable of learning and self-development. The teaching and learning process shall aim at enabling the learners to develop themselves at their own pace and to the best of their potentiality or hereinafter called learner-centered instructions. Knowledge, morality, and learning process must be emphasized in an integrated manner depending on the appropriateness of each level of education. Moreover, the learners' performance must be assessed through observation of their development, personal conduct, learning behavior, participation in activities, and results of the tests accompanying the teaching and learning process (Wongyai, 2001). In addition, the teachers should place their emphasis on developing the instructions by organizing various types of instructions based on the needs of the learners. This will draw the learners' attentions to the instructions and also facilitate the learners in self-development and in life-long learning (National Education Commission, 2001). Therefore, in organizing teaching and learning process in higher education, the learners must be able to search for knowledge and self-taught by having the teachers as the facilitators in providing activities that support the learners in participating and learning both inside and outside classroom until the learners can develop themselves at their own pace and to the best of their potentiality.

Business English Curriculum (Amendment of B.E. 2555) is the amended curriculum of Bachelor of Arts in Business English of Buriram Rajabhat University. This curriculum aimed at developing graduates to be in line with the National Education Act of B.E. 2542 as well as the academic and international standards and to be knowledgeable persons in terms of Business English who can adapt themselves with the changes in their region and in the world. So, they can compete with other people from the neighboring countries and countries in the world. This tertiary curriculum also aimed at producing the graduates with desired characteristics. Therefore, the learner-centered instructions that are conforming to the National Education Act of B.E. 2542 and the university's policies are performed. English for ASEAN course is one of the subjects that were added to this amended curriculum in order to conform to the changes of ASEAN and the world (Business English, 2012). Business English program has organized English for ASEAN course as a free elective course in academic year 2015 in the first and the second semester and in academic year 2016 in



the first semester as well. However, from the interviews with the lecturers who have taught in the course during academic year 2015-2016: Dr. Saowarot Ruengpaisarn and Ms. Purisa Watcharenwong, together with some of the students who had enrolled in the course to find out about the research problem, it was found that this course was quite new. Handouts were mostly used in the course. And there was no concrete model for teaching and learning process in the course. Moreover, the needs of the learners for the instruction including contents, patterns/activities used in the instruction as well as measurement and evaluation where the learner-centered instruction was focused have not been investigated (Watcharenwong, 2016).

Therefore, needs analysis was conducted. The results of the research on needs analysis for learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University showed that most of the samples were females (93.21) from group 1 (50.84). They needed the model in terms of measurement and evaluation in overall at a moderate level (3.30), followed by instruction aspect that was overall at a moderate level (3.28), and the content aspect which was overall at moderate level (2.91), respectively. In the group discussion, the participants needed to learn about cultures and traditions of the ASEAN countries the most; they would like to study in a relaxing atmosphere, do group activities, have technology utilization in the instruction, have evaluation of authentic works, have formative assessments in collecting scores from works, quizzes, proper uniforms, and punctuality, etc.

As the teacher who would teach in the course in the academic year 2016 in the second semester, the researcher has found the needs for developing the learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University and the needs for investigating the satisfaction of the learners towards the developed model. The results from the study will be useful for teaching and learning process of the course that is conforming to the university policy, the curriculum, and the National Act. This will offer the most benefits to the learners.

Research Objectives

The research objectives were: 1) to develop learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University and 2) to investigate the satisfaction towards the model.

Research Methodology

1. Samples

The research objectives were: 1) to develop learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University and 2) to investigate the satisfaction towards the model.

2. Research Instruments

The tools used in data collection consisted of 1) the learner-centered instructional model, 2) model evaluation form, 3) pretest and posttest, and 4) satisfaction assessment questionnaire.

The learner-centered instructional model consisted of 1) principles/objectives/skills and time allocation, 2) teaching strategies and methods, 3) teaching steps and activities, and 4) measurement and evaluation. The developed model consisted of 13 lesson plans. The model focused on the instruction of Task Based Learning Instruction, pair-work/group-work, autonomous learning by using technologies, Blended Learning Instruction, rewarding, the use of scoring rubric, and the use of portfolio in authentic assessment, etc. These 13 lesson plans were examined and checked by three experts. After receiving the comments and suggestions from the experts, the model was employed in English for ASEAN class with the 59 samples. This model was developed by the researcher via the study of related documents including related research studies. The researcher analyzed and synthesized the documents in order to draw up a framework and draft the model. Three sets of the draft were sent to the three experts to examine for the appropriateness of the content, language used, and validity. And the Index of Item-Objective Congruence or IOC scores were given by the three experts. Then the overall IOC was calculated. It was in the range of 0.67-1.00 which means the model could be used. Then the model was developed according to the suggestions of the experts. Later, the model was used in a try-out with 30 third-year English major students. The results gained from the try-out were used to develop the model before using it with the sample group.

Three sets of the model evaluation form together with the 13 lesson planes were distributed to the three experts. There were 2 parts in this form. Part 1 included close-ended questions regarding the model in terms of 1) principles/objectives/skills and time allocation, 2) teaching strategies and methods, 3) teaching steps and activities, and 4) measurement and evaluation. And part 2 consisted of open-ended questions about the opinions and other suggestions of the experts on the developed model.

The pretest and the posttest were examined and checked by three experts. The pretest and posttest consisted of 30 items with 4 choices. The 59 sets of the pretest were distributed to the samples together with the answer sheets. Thirty minutes were given for taking the pretest. As for the posttest, technology called Kahoot.com was used in providing the test at the end of the course. The students could answer by choosing the choices from their mobile phone. The 30 items of questions were used randomly.

The questionnaire consisted of three parts: the first part focused on their personal information; the second part was about their opinions on satisfaction towards the learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University (30 items); and the third part was about their other suggestions. The questionnaire was developed by the researcher through the study of related documents including related research studies. The researcher analyzed and synthesized the documents in order to write up a framework and draft the questionnaire. Three sets of the draft questionnaire were sent to three experts to examine for the appropriateness of the content, language used, and validity. And the Index of Item-Objective Congruence or IOC scores were given by the experts. Then the overall IOC was calculated. It was in the range of 0.67-1.00 which means the questionnaire could be used. Then the questionnaire was developed according to the suggestions of the experts. Later, thirty sets of the questionnaire were used in a try-out with 30 third-year English major students. The results gained from the try-out were used to develop the questionnaire before using it with the sample group.

3. Data Collection

3.1 The model was employed in the English for ASEAN course during the second semester of academic year 2016.

3.2 The model evaluation forms were distributed to the three experts and collected later for improving the model.

3.3 The 59 sets of the pretest were distributed to the samples together with the answer sheets. Thirty minutes were given for taking the pretest. As for the posttest, technology called Kahoot.com was used in providing the test at the end of the course. The students could answer by choosing the choices from their mobile phone. The 30 items of questions were used randomly.

3.4 The 59 questionnaire sets on the satisfaction of the samples were distributed to the samples. The researcher collected the data by herself right after the course ended.

It was noted that these tools constructed by the researcher were examined by three experts for their content validity approvals. In addition, the Index of Item-Objective Congruence (IOC) of the tools were between 0.67 and 1.00.

4. Data Analysis

The statistics used in data analysis were percentage, mean, standard deviation, t-test, and content analysis as follows:

The comments and suggestions received from the three experts on the model were analyzed by using content analysis. The data obtained from the evaluation form were analyzed by using the content validity. As for the data collected from the pretest and the posttest, they were analyzed by using t-test. Finally, the data derived from the responses of the questionnaire part 1 and 2 were computed by using percentage, mean, and Standard Deviation, while the data obtained from the responses of the questionnaire part 3 were analyzed by using content analysis and descriptively presented.

Research Results

The research objectives were 1) to develop learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University and 2) to investigate the satisfaction towards the model. The following results are presented in line with the research objectives:

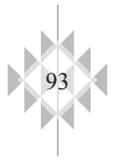
1. The content validity of the learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University

The result representing content validity of the model is shown in Table 1.

Table 1

Content validity of the learner-centered instructional model

No.	Lesson Plan	IOC	Meaning
1	Introduction to English for ASEAN course + Pretest	1.00	Usable
2	History of ASEAN, Overview of ASEAN Community, ASEAN Countries	1.00	Usable
3	ASEAN Culture: Costumes	0.67	Usable
4	Don's and Don'ts in ASEAN	0.67	Usable
5	ASEAN Culture: ASEAN Foods	1.00	Usable
6	All about ASEAN: Mind Mapping	1.00	Usable
7	Tourist Attractions in ASEAN + Itinerary	0.67	Usable
8	Selling a tour in ASEAN using handmade itinerary	1.00	Usable
9	ASEAN Languages: VDO clips	0.67	Usable



No.	Lesson Plan	IOC	Meaning
10	ASEAN QUIZ	1.00	Usable
11	ASEAN Magazine Project	1.00	Usable
12	Presentation of ASEAN Magazine Project	0.67	Usable
13	Summary of the English for ASEAN course + Posttest	0.67	Usable
	Total	0.84	

Table 1 reveals that the model of 13 lesson plans had the content validity of 0.84 which means the model could be used.

2. The academic achievement of samples received from the data gained from pretest and posttest

The result representing academic achievement of samples is shown in Table2.

Table 2

Academic achievement of the samples

Score	N	\bar{X}	S.D.	T	Sig
Pretest	59	6.14	1.34	12	0.01
Posttest	59	18.14	3.17		

*p < 0.05

Table 2 shows that the samples had the mean score from the pretest as $\bar{X} = 6.14$ and S.D. = 1.34, and they had the mean score from the posttest as $\bar{X} = 18.14$ and S.D. = 3.17. The result reveals the effectiveness of the instructional model as the pretest score of the samples was significantly higher than the posttest score at 0.01.

3. The Effective Index of the model

The result representing Effective Index of the model is shown below.

$$\text{Effective Index} = \frac{P_2 - P_1}{\text{Total} - P_1}$$

Where

- P_1 means Total scores of the pretest of every student
- P_2 means Total scores of the posttest of every student
- $Total$ means Result from number of students multiple by full

score

$$\begin{aligned}
 P_1 &= 362 \\
 P_2 &= 1,070 \\
 Total &= 59 \times 30 \\
 &= 1,770
 \end{aligned}$$

$$\text{Effective Index} = \frac{1,070 - 362}{1,770 - 362}$$

$$\text{Effective Index} = \frac{710}{1,408}$$

$$\text{Effective Index} = 0.504$$

From the effective index shown above, the model had the effective index of 0.50 or 50% which means the model could be used.

4. Personal information of the samples

The result representing personal information is shown in Table 3.

Table 3

Personal information of the samples

No.	Personal Information	Frequency (n=32)	Percentage (%)
1	Gender		
	Male	4	6.77
	Female	55	93.22
2	Group		
	1	30	50.84
	2	29	49.15

Table 3 reveals that out of 59 samples, the number of females (93.22%) was much greater than that of males (6.77%). The majority of the samples were from group 1 (50.84%).

5. Satisfaction of the samples towards the model

The result representing satisfaction of the samples towards the model in terms of content is shown in Table 4.

Table 4

Satisfaction of the samples towards the model in terms of content

No.	Satisfaction on Content	\bar{X}	S.D.
1	The content of the course is in line with number of its credit	1.15	0.38
2	The content of the course is up-to-date	5.00	0.08
3	The content of the course is suitable and in line with the needs of the learners	5.00	0.02
4	The content of the course is in line with the background knowledge of the learners	2.54	1.13
5	The content of the course is useful for future career	4.85	0.38
Total		3.70	0.39

From Table 4, it was found that the samples' satisfaction towards the model in terms of the content was overall at a high level (3.70). When considering each item, the samples were satisfied with the content because the content of the course is up-to-date at the highest level (5.00), and it is suitable and in line with the needs of the learners (5.00), followed by the content of the course is useful for future career (4.85), and the content of the course is in line with the background knowledge of the learners (2.54), respectively.

The result representing satisfaction of the samples towards the model in terms of the teacher is shown in Table 5.

Table 5
Satisfaction of the samples towards the model in terms of the teacher

No.	Satisfaction on Content	\bar{X}	S.D.
1	Learner-centered approaches were used	5.00	0.01
2	Objectives were informed and teaching plans were done with the learners to determine the activities in class	5.00	0.06
3	Proper environment for learning was organized by focusing on learners' participations	5.00	0.00
4	Activities for knowledge construction were organized	4.85	0.38
5	Feedbacks on the behaviors and learning process of the learners were given properly in timely manner	2.54	1.13
6	Challenging questions were asked	4.85	0.38
7	Finding learning strategies of each learner was supported	5.00	0.04
8	Learners were supported and encouraged in learning	4.92	0.28
TOTAL		4.64	0.28

From Table 5, it was found that the samples' satisfaction towards the model in terms of the teacher was overall at a highest level (4.64). When considering each item, the samples were satisfied with the teacher since learner-centered approaches were used, objectives were informed and teaching plans were done with the learners to determine the activities in class, proper environment for learning was organized by focusing on learners' participations, and finding learning strategies of each learner was supported at the highest level (5.00), followed by learners were supported and encouraged in learning (4.92), and challenging questions were asked (4.85), respectively.

The result representing satisfaction of the samples towards the model in terms of the instruction is shown in Table 6.

Table 6
Satisfaction of the samples towards the model in terms of the instruction

No.	Satisfaction on Content	\bar{X}	S.D.
1	Activities for knowledge sharing as group-work were done	5.00	0.01
2	Proper activities that in line with knowledge, abilities, and skills of the learners were organized	4.85	0.38
3	Activities assigning the learners to search for knowledge by themselves were organized continuously	4.85	0.38
4	Hand-on activities or situations were organized	2.54	1.13
5	Activities or situations for enhancing the learners' skills and critical thinking were organized	4.85	0.38
6	Activities providing opportunities for learners to practice their knowledge in various situations were organized	4.85	0.38
7	Activities with various learning methods were organized	5.00	0.03
8	Various learning resources that supports the learning of the learners were used	4.92	0.28
9	Medias and technology for gaining the attention of the learners in learning were employed	4.92	0.28
10	Atmospheres motivating the learners to learn were created	4.85	0.38
Total		4.66	0.36

From Table 6, it was found that the samples' satisfaction towards the model in terms of the instruction was overall at a highest level (4.66). When considering each item, the samples were satisfied with the instruction when activities for knowledge sharing as group-work were done and activities with various learning methods were organized at the highest level (5.00), followed by various learning resources that supports the learning of the learners were used and medias and technology for gaining the attention of the learners in learning were employed (4.92), and activities assigning the learners to search for knowledge by themselves were organized continuously, activities assigning the learners to search for knowledge by themselves were organized continuously, activities or situations for enhancing the learners' skills and critical thinking were organized, activities providing opportunities for learners to practice their knowledge in various situations were organized, and atmospheres motivating the learners to learn were created (4.85), respectively.

The result representing satisfaction of the samples towards the model in terms of the measurement and evaluation is shown in Table 7.

Table 7
Satisfaction of the samples towards the model in terms of the measurement and evaluation

No.	Satisfaction on Measurement and Evaluation	\bar{X}	S.D.
1	Various measurement and evaluation techniques and methods were used	5.00	0.03
2	The measurement and evaluation were done in line with the organized activities and the progress of the learners	5.00	0.01
3	Correct answers and guidelines of the answers were given	4.85	0.38
4	Scores from the measurement and evaluation were revealed	4.85	0.38
5	Feedback on measurement and evaluation were provided for self-development	2.54	1.13
6	The measurement and evaluation were done clearly and fairly	4.85	0.38
7	The measurement and evaluation were done regularly	5.00	0.00
Total		4.58	0.33

From Table 7, it was found that the samples' satisfaction towards the model in terms of the measurement and evaluation was overall at a highest level (4.58). When considering each item, the samples were satisfied with the measurement and evaluation due to various measurement and evaluation techniques and methods were used, the measurement and evaluation were done in line with the organized activities and the progress of the learners, The measurement and evaluation were done regularly at the highest level (5.00), followed by correct answers and guidelines of the answers were given, scores from the measurement and evaluation were revealed, and the measurement and evaluation were done clearly and fairly (4.85), and feedback on measurement and evaluation were provided for self-development (2.54), respectively.

Discussion

The following points based on the research results are discussed:

1. The developed model consisted of 13 lesson plans: 1) Introduction to English for ASEAN course + Pretest, 2) History of ASEAN, Overview of ASEAN Community, ASEAN Countries, 3) ASEAN Culture: Costumes, 4) Don's and Don'ts in ASEAN, 5) ASEAN Culture: ASEAN Foods, 6) All about ASEAN: Mind Mapping, 7) Tourist Attractions in ASEAN + Itinerary, 8) Selling a tour in ASEAN using handmade itinerary, 9) ASEAN Languages: VDO clips, 10) ASEAN QUIZ, 11) ASEAN Magazine Project, 12) Presentation of ASEAN Magazine Project, and 13) Summary of the English for ASEAN course + Posttest. The model focused on the instruction of Task Based Learning Instruction, pair-work/group-work, autonomous learning by using technologies, Blended Learning Instruction, rewarding, the use of scoring rubric, and the use of portfolio in authentic assessment, etc. The approaches for learner-centered instruction are various; the teachers can select the approaches that are in accordance with the nature of the course. This is in line with Preedeekul (2015). She conducted a research on developing the instructional model by using Teach Less,

Learn More (TLLM) to enhance the use of English in communication in ASEAN of first year students. And this is also conforming to the study of Sahatsathatsana et al (2014) that they had developed the problem based instructional model for English language training for youth guides to prepare for being ASEAN community members. It can be seen that the approaches in teaching such as TLLM or problem based approach were used in the above studies. However, in the current research, blended learning and task based approaches were utilized. So, the learners can learn both inside and outside the classroom. The students' works were collected and kept in their portfolios for authentic assessment throughout the semester. When the tasks were focused, the learners could create their tasks or works by using their knowledge such as selling tour to customers by using brochures they have made and activities for producing ASEAN magazines. This is in line with authentic assessment that expected the high level outcomes such as production by using the knowledge the learners gained to create the works or do the tasks (Maneesi and Maneesi, 2003). The authentic evaluation is the evaluation by considering many aspects of the learners informally both inside and outside classroom. It can be done all the time by using various methods (Khammoon, 2001).

2. The satisfaction towards the model in terms of the instruction was overall at the highest level since the instructional model was developed by using the needs of the learners. This is in line with Srisa-ard (2003) that in organizing learner-centered instruction, there are many approaches: when considering in content aspect, the learners can study 100% according to their needs or they can choose most of the lessons, or the lessons were set but they can choose the activities they need. When considering in learners aspect, the learners can study and search for the knowledge 100% by themselves, or they can self-study most of the lessons, or they can study from the provided media. However, learning activities were done mostly by the learners. In this current research study, the samples viewed that learning atmosphere was relaxing and fun. Since Task Based Learning Instruction, pair-work/group-work, autonomous learning by using technologies, Blended Learning Instruction, rewarding, the use of scoring rubric, and the use of portfolio in authentic assessment, especially the technologies such as games, were utilized in this instruction. This is in line with 1 event from 9 events of instruction of Gagné (Gagné, R. M., Briggs, L. J., and Wager, W. W., 1992): gaining attention of the learners. When learners paid attention to the study, the learners will study very well. Therefore, in teaching and learning process, there must be activities or methods for gaining attention of the learners. This also conforms to the new paradigm in teaching and learning in the 21st century that learning which responses to the needs of the learners as individuals: the learners are



the center of the learning by focusing on individual program, self- learning through the knowledge search process or self-discovery emphasizing on how to study, so the learners will think, create, and learn joyfully and also have a chance in receiving the rewards (Dechakup and Yindeesook, 2015).

Conclusion

This research focused on developing the learner-centered instructional model in English for ASEAN course for Business English majors of Buriram Rajabhat University and the satisfaction of the students towards the model. It can be concluded that most of the samples were females (93.21%) from group 1 (50.84%). The model that was developed consisted of 13 lesson plans with the content validity of 0.84 and Effective Index of 0.50. The model focused on the instruction of Task Based Learning Instruction, pair-work/group-work, autonomous learning by using technologies, Blended Learning Instruction, rewarding, the use of scoring rubric, and the use of portfolio in authentic assessment, etc. The samples' satisfaction towards the model in terms of the content was overall at a high level (3.70); the instruction was overall at the highest level (4.66), followed by the teacher aspect that was at the highest level (4.64), and measurement and evaluation in overall at the highest level (4.58), respectively. It was suggested that the teachers who are interested in the model including schools and educational institutes can apply the model with their courses in the future.

Recommendations

The following are some recommendations based on the research results:

1. Teachers who are interested in the model including schools and educational institutes can apply the model with their courses in the future.
2. The results from the study can be utilized with other groups with the same nature in organizing English for ASEAN course.
3. Further studies regarding the development of learner-centered instructional model in other courses should be conducted.
4. Further studies regarding the development of learner-centered instructional model in other courses that are in line with the students' needs with other teaching methods should be conducted.
5. Further studies for comparing learner-centered instructional models should be done to analyze which models have more effectiveness on the students.
6. Further studies on learner-centered instructional model for different groups of students should be conducted, and the focus-group discussion and observation should also be applied in the research methodology.

References:

- Business English. (2012). *Business English Curriculum (Amendment of B.E.2555)*. Buriram: Buriram Rajabhat University.
- Dechakup, P. and Yindeesook, P. (2015). *The 21st Century Learning Management*. Bangkok: Chulalongkorn University Press.
- Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of Instructional Design (4th ed.)*. Forth Worth, TX: Harcourt Brace Jovanovich College Publishers.
- Khammoon, S. (2001). *Portfolio*. Bangkok: Parbpim Press.
- Maneesi, K. and Maneesi K. (2003). *Portfolio: New Era Assessment*. Bangkok: ThunkamolPress.
- National Education Commission. (2001). *Guidelines for Higher Education Reform according to National Education Act B.E. 2542*. Bangkok: VTC Communication.
- Preedeekul, A. (2015). Development of Instructional Model Based on Teach Less Learn More Principles to Enhance English Communicative Competence in ASEAN Community for Higher Education Students. *Social Sciences Research and Academic Journal*. July 2015: Vol. 10, special issue (Faculty of Education): 1-18.
- Sahatsathatsana, S. et al. (2014). *The Development of English Instruction through the Use of Problem-Based Learning for English Training to the Youth Guides for Being Ready for the ASEAN Community*. Kalasin: Rajamangala University of Technology Isan (Kalasin Campus).
- Srisa-ard, B. (2003). *Research for Teachers*. Bangkok: Suweeriyasarn.
- Watcharenwong, P. (2016, October). English program teacher. Interview.
- Wongyai, W. (2001). Classroom Research Guidelines for Learning Development: Student Centered. *Teachers' Roles and Classroom Research*. Bangkok: Office of National Education Commission.

