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The Development of Literature Learning Activities on the Topic of Rachathirat for Saming Pha Ram Arsa by Matthayomsuksa 1 Students Using the **KWL Plus Technique with Cooperative** Learning

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Abstract

This research aimed 1) to compare literature learning achievement on the topic of Rachathirat for Saming Pha Ram Arsa by Matthayomsuksa 1 students using the KWL Plus technique with cooperative learning, before and after learning, and 2) to study the level of satisfaction with the literature learning activities on the topic of Rachathirat for Saming Pha Ram Arsa by Matthayomsuksa 1 students using the KWL Plus technique with cooperative learning, before and after learning. Samples included 42 Matthayomsuksa 1 students from Satriwithaya School during semester 1 in academic year 2022. The simple random sampling technique was used to select the samples. The research instruments were a literature learning achievement test and a satisfaction survey. The statistics used for analysis comprised arithmetic mean (M), standard deviation (SD), and dependent t-test. The results of this research were as follows: 1) the literature learning achievement on the topic of Rachathirat for Saming Pha Ram Arsa by Matthayomsuksa 1 students after learning using the KWL Plus technique with cooperative learning was significantly higher than before learning at .05, and 2) overall satisfaction was found to be at the highest level. Keywords: Development of Literature Learning, KWL Plus Technique, Cooperative Learning

Thai literature is considered precious cultural heritage of Thailand, created from remarkable talent. It is a tool showing civilization of the country and several mirrors that reflect society and culture in each era, enabling people in the country to learn about stories in the past and how ancestors lived in ancient times and to learn how to apply points of consideration obtained from literature to meet current environment and social conditions. Thus, teaching and learning literature is crucial because it encourages students to know and realize the value of good books, heightens the mind of readers, and instill a reading habit in students as well (Ruangpeungrungroj, 2020).

The Basic Education Core Curriculum B.E. 2551 (2008) requires students to learn literature and literary works by synthesis so as to investigate data, concepts and values of literature and to serve enjoyment. Thought, values, customs and traditions, stories of society in the past, and the beauty of language have been passed down, generating impression and pride in ancestors who collected and carried on them until they still exist today. Besides, the Basic Education Core Curriculum prescribes learning strands and standards including indicators of Thai language in the strand 5: literature and literary works, standard T5.1: understanding and expressing opinions; criticism of Thai literature and literary works through appreciative approach; and application in real life (Ministry of Education, 2009).

Though the Basic Education Core Curriculum gives importance to literature teaching and learning, many problems are found in literature teaching and learning condition, which can be noticed from learning behavior of Matthayomsuksa 1 students from Satriwithaya School as it was found that students were unable to analyze a story in literature and they also had a problem related to finding the main idea in stories, making their literature learning outcomes quite low. The main causes of the problem are problems related to teachers and problems related to students. With regard to problems related to teachers, traditional teaching methods were used; teachers gave a lecture while interesting instructional media were not available and there were no activities encouraging students to pay attention to lessons. In relation to problems related to students, the topic of Rachathirat for Saming Phra Ram Arsa was composed in the form of an essay throughout the episode; there are some difficult words that students did not understand, making them sleepy. Some students paid attention to technologies instead, i.e. smartphone, computer, electronic media, etc. This is consistent with a research study conducted by Khamting (2021) saying that students do not see the importance and benefits of learning literature; therefore, they are not interested in learning literature, causing student literature learning achievement was low because students did not have systematic thinking skills and problem solving skills. Another significant cause of the problems is teaching and learning management. Emphasis was placed on lecture-based teaching without a variety of instructional media while teaching and learning activities were not interesting, causing a lack of motivation in learning. Consequently, the researcher was interested in developing literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students to have higher efficiency. According to the study on teaching and learning management that will help develop literature learning activities, there are a lot of methods. The researcher studied the effect of learning management using KWL Plus technique

and found it can develop student learning ability in literature. KWL Plus technique was developed by Eileen Carr and Donna Olge (1987) describing that 1) K means Know; it is the procedure that students need to examine how much knowledge and experience they have with a topic. It prepares students to learn new content by integrating between knowledge and existing experience, connecting new knowledge with prior knowledge. Students' experiences are important for managing pre-reading activities, 2) W means Want to know; it is the procedure that students need to ask themselves what they would like to know about what they are going to read. It is a way to set a goal and expectation for reading, 3) L means Learned; it is the procedure that students have to explore what they learned. Students have to find answers to the questions they raised in the W process and they need to take notes what they learned and 4) Plus means the procedure of creating a mind map and writing a conclusion after reading. There are two goals of learning management using KWL Plus technique (Suksabai, 2019). The first one is to enable teachers to learn about students' prior knowledge by using a workpiece to evaluate students' development and to be feedback. The second one is to help students improve reading skills and promote analytical thinking; students are promoted to practice how to set an objective and raise questions during reading or after reading, to practice brainstorming, how to systemize data, how to create a mind map and summarize what they read including evaluating understanding from reading. This is consistent with a research study conducted by Suttiwet (2018) saying that learning management using KWL Plus technique provides activities in every procedure to students to practice; students are able to develop reading skills and learn the process of working in groups, enabling students to achieve learning and enjoyment from learning while they are interested in learning by themselves in what they would like to know, they shall explore an issue systematically and have an apparent sequence of working process and study planning before practicing as planned. In this regard, reading for main idea achievement of Matthayomsuksa 3 students after receiving learning management using KWL Plus technique was higher than before receiving the learning management with the statistical significance level of 0.05.

In addition, the researcher conducted a study on learning management using cooperative learning and found that it is able to develop students' ability in learning literature. Cooperative learning is learning that focuses on group work to help students learn about how to build a body of knowledge by themselves through team's learning skills managed to achieve outcomes (Kagan, 1994) and concept of group interaction skills. Learning process is developed by building positive relationship among members with self-responsibility and responsibility shared with other members. Teachers play their role in observing and giving pieces of advice regularly (Johnson, Johnson and Stanne, 2012). Cooperative learning is a student-centered learning approach. Students are promoted to have thinking skills, to become problem solvers, enquirers and effective collaborators based on working as a team. Students perform real-life practice and bring knowledge obtained to analyze and solve problems accordingly. Teachers provide coaching and consulting in learning activities. Learning obtained enables students to have memorization skills and can apply continuously throughout their lives (Srisuk, 2019). A research study conducted by Kleamongkol (2017) stating that cooperative learning is a method that encourages students to have participation in learning, enabling them to receive experiences related to their real lives, practice knowledge searching skills, knowledge management skills, thinking skills, skills in creating new knowledge, and teamwork skills. It is considered a learning method that can be applied appropriately to quality teaching and learning. Therefore, it is a proper method for current teaching and learning activities to ensure that students' learning is efficient and effective.

The researcher brought the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning to teaching and learning activities. The researcher extremely hopes that after students learning through the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning, they shall have a learning management guideline using KWL Plus technique with cooperative learning to manage literature learning activities on the topic of Rachatirat for Saming Phra Ram Arsa accordingly.



Figure 1 Research Conceptual Framework

Objectives

- 1. To compare literature learning achievement on the topic of Rachathirat for Saming Phra Ram Arsa episode of Matthayomsuksa 1 students before and after learning using KWL Plus technique with cooperative learning, before and after learning.
- To study the level of satisfaction with the literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning.

RESEARCH METHODOLOGY RESEARCH METHODOLOGY

The research on the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning was conducted on the basis of experimental research design.

Population and Sample

Population was 156 Matthayomsuksa 1 students from 4 classrooms of Satriwithaya School, the 2nd semester of the academic year 2022.; 2.2 The sample consisted of 42 Matthayomsuksa 1 students from 1 classroom of Satriwithaya School, the 2nd semester of the academic year 2022, selected by simple random sampling method (Wongwanich, 2015). The classroom was used as a sampling unit, selected by draw lot method.

Research Instruments

Five literature learning management plans on the topic of Rachathirat for Saming Phra Ram Arsa using KWK Plus technique with cooperative learning, 2 hours/plan for 10 hours teaching. A test was performed 1 hour before learning and 1 hour after learning, 12 hours in total. Content validity was measured by 3 experts in literature content, learning management, and measurement & evaluation. Congruence between objectives, content, and learning activities (Item-Objective Congruency: IOC) (Rovinelli & Hambleton, 1977) was measured and the IOC value ranged between 0.67 to 1.00.

A literature learning achievement pretest and posttest on the topic of Rachathirat for Saming Phra Ram Arsa in the form of 4 multiple choice questions, 60 items. Content validity was measured by 3 experts in content in literature, learning management, and measurement & evaluation. Item-Objective Congruency (IOC) (Rovinelli & Hambleton, 1977) was measured and the IOC value ranged from 0.67 to 1.00. The data obtained were pretested with a group of 30 students of Matthayomsuksa 1.1 who were not the research sample. The test results were analyzed by calculating item difficulty and power of discrimination, 30 items were selected, the reliability was 0.84 and difficulty index of the tests (Puangrat Taweerat) ranged from 0.23 to 0.80 and power of discrimination ranged from 0.21 to 0.80. The improved literature learning achievement pretest and posttest were used with the sample accordingly.

A satisfaction survey of Matthayomsuksa 1 with the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa using KWL Plus technique with cooperative learning, consisting of 4 aspects, i.e. learning atmosphere, learning activities management, group activities, and anticipated benefits. A 16-point rating scale questionnaire was developed and measured content validity by 3 experts. Item-Objective Congruency (IOC) (Rovinelli & Hambleton, 1977) was measured and the value ranged from 0.67-1.00.

Data Collection

A pre-test using the literature learning achievement test on the topic of Rachathirat for Saming Phra Ram Arsa was conducted with the sample, 30 items for 1 hours.

Literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa using KWL

Plus with cooperative learning were performed with the sample for 10 hours, 2 hours per week, 5 weeks in total. The teaching was performed according to the lesson plan as follow:

K procedure is What we know – students were assigned to divide into groups and work cooperatively to find answers from illustrations given by the teacher. Each group of students mutually recorded the answers in a KWL Plus chart. This procedure enables students to realize how much they have prior knowledge or experience about Rachathirat.

W procedure is What we want to know – students in each group mutually raised questions about what they would like to know and work cooperatively to find out methods to obtain answers. It is the procedure that trains students to know how to set a goal in learning.

L procedure is What we have learned – students in each group explore themselves/their group what knowledge they obtain from the topic of Rachathirat for Saming Phra Ram Arsa. Next, students took a note what they learned in a mind map.

Plus procedure is students in each group worked cooperatively to summarize the topic of Rachathirat for Saming Phra Ram Arsa in the form of a mind map and presented in front of the class according to the sequence number of a group.

A post-test using the literature learning achievement test on the topic of Rachathirat for Saming Phra Ram Arsa, 30 items for 1 hours was conducted. Students were assigned to answer the satisfaction survey developed by the researcher. Completeness and accuracy were measured before analyzed statistical data.

The scores obtained from the literature learning achievement test on the topic of Rachathirat for Saming Phra Ram Arsa and results of the student satisfaction survey were used to validate completeness and accuracy before analyzing statistical data.

The results of students' satisfaction levels with the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning were analyzed for reporting in the next step.

Data Analysis

Learning achievement of Matthayomsuksa 1 students before and after learning literature on the topic of Rachathirat for Saming Phra Ram Arsa using KWL Plus technique with cooperative learning was analyzed using dependent sample t-test. Levels of Matthayomsuska 1 students' satisfaction were analyzed using mean and standard deviation. The mean score criteria were compared to Likert scale.

Findings

Analysis and comparison results of the pretest and posttest literature leaning achievement on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning revealed that the pretest mean score was 11.57 and the posttest mean score was 17.31. The comparison between the pretest mean score and posttest mean score found the posttest mean score was higher than the pretest score with the statistical significance level of 0.05 (Table 1).

 Table 1 Analysis and Comparison Results of the Pretest and Posttest Literature Learning

 Achievement on the Topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa

 1 Students using KWL Plus Technique with Cooperative Learning

		-		-		0
EXPERIMENTAL GROUP	N	М	SD	Т	DF	SIG.
PRETEST	42	11.57	2.90	22.49	41	.000*
POSTTEST	42	17.31	3.22			
Note: $* n < 05$						

Note: * p < .05

Study results of Matthayomsuksa 1 students' satisfaction levels with the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning found their overall satisfaction and satisfaction towards each aspect were at the highest level. The aspect with the highest mean score was learning activities management (M = 4.80, SD = 0.68), followed by learning atmosphere (M = 4.79, SD = 0.71). The aspect with the lowest mean score was group activities (M = 4.75, SD = 0.74) (Table 2).

Table 2 Study Results of Matthayomsuksa 1 Students' Satisfaction Levels with the Development of Literature Learning Activities on the Topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 Students using KWL Plus Technique with Cooperative Learning

LIST	М	SD	LEVEL
LEARNING ATMOSPHERE	4.79	0.71	HIGHEST
LEARNING ACTIVITIES MANAGEMENT	4.80	0.68	HIGHEST
GROUP ACTIVITIES.	4.75	0.74	HIGHEST
ANTICIPATED BENEFITS	4.78	0.89	HIGHEST
TOTAL	4.78	0.75	HIGHEST

Conclusion

The literature learning achievement on the topic of Rachathirat for Saming Pha Ram Arsa by Matthayomsuksa 1 students after learning using the KWL Plus technique with cooperative learning was significantly higher than before learning at .05.

The results of Matthayomsuksa 1 students' satisfaction levels with the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning found their overall satisfaction and

satisfaction towards each aspect were at the highest level. The aspect with the highest mean score was learning activities management, followed by learning atmosphere. The aspect with the lowest mean score was group activities.

Discussion

The study results of the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning can be discussed as follow:

The posttest literature learning achievement on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students was higher than the pretest literature learning achievement with the statistical significance level of 0.5 because the literature learning management using KWL Plus technique with cooperative learning is the teaching process that focuses on reading skills, thinking skills, and teamwork skills. Students were able to practice and learn how to listen to other people's opinions. They learned from language composition they did by themselves based on their understanding. KWL Plus provides apparent process and procedures. Learning management procedures include 1) K (What we Know) - it is the procedure of activities before learning. Students need to combine their prior knowledge in the activities. Prior knowledge or experience is an important thing that allows students to achieve a literature learning process on the topic of Rachathirat for Saming Phra Ram Arsa in a better way. Students felt enthusiastic and tried to employ their prior knowledge and experience, contributing to more efficient learning, 2) W (What we want to Know) - it is the procedure of activities in learning. It is the procedure that students express their demands through questioning. It is a way to encourage students to have motivation in finding information, making students assertive. Every student participates in group work. They have responsibility in what they have been assigned. In this regard, students were able to summarize the topic of Rachathirat for Saming Phra Ram Arsa in an efficient manner, 3) L (What we have learned) - it is the procedure of activities after learning. Students learned from what they questioned and mutually find out answers. This procedure helps students know learning objectives, practice concentration skills, and summarize the main idea from the topic of Rachathirat for Saming Phra Ram Arsa, 4) Plus is the procedure for creating a mind map (Mapping). It helps collect and manage students' thinking system from what they have learned, namely, before learning, during learning, and after learning, to increase understanding from learning. Students viewed more details of the story. The important thing is they were able to separate stories systematically. Besides, cooperative learning enables students to learn in a group and have a

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learning procedure different from usual. Students had opportunities to talk with friends. They mutually made a plan and design compliant with their roles and duties while they were trained to have responsibility for group work. They worked cooperatively to offer ideas, practice teamwork skills, how to explore things, including searching for knowledge by themselves about the topic of Rachathirat for Saming Phra Ram Arsa. That is why their posttest literature learning achievement was higher than their pretest literature learning achievement with the statistical significance level of 0.05, consistent with a research study conducted by Thadang (2021) on management of reading comprehension with the KWL Plus technique in combination with a mind map of Matthayomsuksa 2 students. The study results indicated that reading comprehension achievement of Matthayomsuksa 2 students after learning was higher than before learning with the statistical significance level of 0.05 because learning activity management using KWL Plus technique enabled students to learn what they should learn. It is the procedure that teachers need to raise questions about the topic so as to prepare students' basic knowledge before reading and finding out the main idea accordingly. A research study conducted by Suksabai (2019) on developing of Thai analytical reading ability through the KWL Plus technique of Matthayomsuksa 6 students indicated that students learned with learning management using KWL Plus technique had higher Thai analytical reading ability after learning than before learning with the statistical significance level of 0.01, compliant with the determined hypothesis. It shows that learning management using KWL Plus technique produces reliable effects and efficient learning management. A research study conducted by Areeworawitkul (2011) on science learning achievement and critical thinking abilities of Matthayomsuksa 1 students through integrated instruction and cooperative learning. The study results revealed that Matthayomsuksa 1 students given cooperative learning management had higher critical thinking abilities after learning than before learning with the statistical significance level of 0.05. A research study conducted by Sornsilp (2013) on the model of cooperative learning to enhance English reading skill in foreign language substance for Matthayomsuksa 3 students found that the sample had higher English learning achievement after learning was higher than before learning with the statistical significance level of 0.05.

Students' satisfaction with the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning was at the highest level, the mean was 4.80 and standard deviation was 0.68. Literature learning on the topic of Rachathirat for Saming Phra Ram Arsa using KWL Plus technique with cooperative learning provides explicit and easy to understand procedures. Students' prior knowledge and experience are built upon and combined with students' new knowledge. Students are encouraged to learn through questions raised by students, enabling them to understand the literature increasingly. The process of cooperative working is available and students are able to exchange knowledge and points of view with their friends. They are able to develop further their knowledge through mind mapping. Students in each group help each other to create a mind map of knowledge obtained from studying the literature from the first procedure to the last one before presenting their own work. Students enjoy learning and working processes as they practice on their own, they have a chance to exchange their opinions with their friends, making them enthusiastic at all times. Therefore, overall students' satisfaction with the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa for Matthayomsuksa 1 students using KWL Plus technique with cooperative learning was at the highest level. A research study conducted by Suttiwet (2018) on the development of the reading comprehension achievement using learning management with KWL Plus technique for Matthayomsuksa 3 students found overall students' opinion towards the learning management using KWL Plus was at the highest level, the mean was 4.61 and standard deviation was 0.12. A research study conducted by Teerawongsanurak (2019) on using KWL-Plus technique to develop creative thinking skills and English reading comprehension abilities of grade 10 students at Maesaiprasitsart School, Maesai district, Chiang Rai province revealed that overall students' satisfaction with the teaching and learning management using KWL Plus technique was at the highest level, the mean was 4.70 and standard deviation was 0.38. A research study conducted by Kleamongkol (2017) on the development of online social media by using cooperative learning activities on basic of graphic design program with the ability to design for Matthayomsuksa 2 students at Sarasas Pracha U-Tid Pittayakarn School indicated that overall students' satisfaction with online social media by using cooperative learning activities was at the highest level, the mean was 4.63 and standard deviation was 0.45. A research study conducted by Lahtam (2021) on the effects of learning management through the 21st century collaborative teaching series on learning achievement about the production of herbal drinks for Matthayomsuksa 3 students indicated that overall students' satisfaction with the learning management using cooperative learning was at the highest level, the mean was 4.75 and standard deviation was 0.24.

Based on the discussion mentioned above, it can be concluded that the development of literature learning activities on the topic of Ratchathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning enables students to have higher learning achievement. The learning activities promote students' language abilities, reading comprehension skills, cooperative working skills, and systematic thinking skills. Therefore, students understand better what they are reading and learn how to organize language based on their understanding.

SUGGESTION

Implications of the Study

Some students may not catch up with reading and thinking during and after literature learning activities since each student has different prior knowledge. Some students may not support their friends while thinking and other students may unable to read and write fluently as they used to learn with international therefore, curriculum; reading their Thai comprehension is quite low. Teachers are required to take care of and give consultation to students by training them to use the process of thinking, reading, decision-making, and problem solving, including teamwork skills to ensure learning activities will achieve the highest efficiency.

Suggestion for Future Research

According to the study results, the posttest learning achievement of the development of literature learning activities on the topic of Rachathirat for Saming Phra Ram Arsa of Matthayomsuksa 1 students using KWL Plus technique with cooperative learning was higher than the pretest learning achievement with the statistical significance level of 0.05. Thus, KWL Plus technique with cooperative learning should be used in learning other stories of literature. A study should be conducted to compare efficiency and effectiveness of KWL Plus technique with cooperative learning towards different learning abilities of students.

References

- Carr, E., & Ogle, D. (1987). K-W-L Plus: A strategy for comprehension and summarization. *Journal of Reading*, 30(7), pp. 626-631.
- Johnson, D. W., Johnson, R. T., & Stanne, M. B. (2012). Cooperative Learning Methods: A Meta-Analysis.
- Kagan, M. (1994). *Learning to Cooperate, Cooperative to Learn*. Kagan Publishing.
- Jatupan, K. (2017). A study of coorperative learning classroom in health system subject among of phamacy technique students at Sirindhorn college of public health Khon Kaen. 8th Hat Yai National and International Academic Conference, 524-533.
- Lahtam, P. (2021). The effects of learning management through the 21st century collaborative teaching series on learning achievement about the production of herbal drinks for Mathayomsuksa 3 students. *Journal of Science and Technology Songkhla Rajabhat University*, 2(2), 1-13.
- Suttiwet, M. (2019). The development of the reading comprehension achievement using learning management with KWL PLUS technique for mathayomsuksa 3 students. *Journal of MCU Buddhapanya Review*, 4(2), 99-114.
- Suksabai, M. (2019). Developing of Thai Reading Ability through the KWL Plus of Mattayomsuksa 6 Students. Rajabhat Maha Sarakham University.

- Ministry of Education. (2008). *Basic Education Core Curriculum 2008*. Cooperative Assembly Printing House.
- Office of Academic and Educational Standards. (2016). *Successful Media and Methods for Teaching Thai Language*. Police Printing House National Police Agency.
- Teeravongsanurak, P. (2019). Using KWL-Plus Technique to Develop of Creative Thinking Skills and English Reading Comprehension Ability of Grade 10 Students at Maesaiprasitsart School, Maesai District, Chiang Rai Province. University of Phayao.
- Taweerat, P. (2000). *Research Methods in Behavioral and Social Sciences*. Srinakharinwirot University.
- Srisuk, R. (2019). Application of cooperative learning theory in teaching and learning design. *The Journal of Boromarjonani College of Nursing Suphanburi*, 2(1), 5-16.
- Rovinelli, R. J., & Hambleton, R. K. (1977). On the use of content specialists in the assessment of criterion-referenced test item validity. *Dutch Journal of Educational Research*, 2, 49-60.
- Areeworawitkul, S. (2011). A Study on Science Learning Achievement and Critical Thinking Ability through Integrated Instruction and Instruction and Cooperative Learning Matthayomsuksa 1 Student. Srinakharinwirot University.
- Thadaeng, S. (2021). Instructional management on reading comprehension using KWL plus technique with mind mapping based on brainbased concepts for mathayomsuksa 2 students. *Journal of Curriculum and Instruction Sakon Nakhon Rajabhat University*, 13(37), 183-191.
- Sornsilp, S. (2014). The model of cooperative learning to enhance english reading skill in foreign language substance for Mathayomsuksa 3 students. *Narkbhutparitat Journal*, 6(1), 75-85.
- Roungphaengrungroj, S. (2021). Development of Thai literature learning model applying constructivism and cooperative learning to enhance the 21st century skills of Matthayomsuksa 6 students. *Journal of*

SaengKhomKham Buddhist Studies. 6(1), 48-68. Khamting, T. (2021). Literature learning outcomes

of rachathirat inpisode of saming butcomes arsa in creativity – based learning of grade 7 students at Banlatkhae school. *RBRU Journal*

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of Humanities and Social Sciences, 2(1), 65-76. Wongwanich, S. (2015). Needs Assessment Research. Bangkok: Chulalongkorn University Printing House.