รูปแบบการจัดการเรียนรู้จากการปฏิบัติสำหรับรายวิชาระเบียบวิธีวิจัยทางสังคมศาสตร์
ACTIVE LEARNING MANAGEMENT MODEL FOR SOCIAL SCIENCE RESEARCH METHODOLOGY COURSES

จันทร์แรม เรือนแป้น[1]

Chanram Ruanpan

บทความวิจัย

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์ เพื่อ 1) ศึกษาจุดอ่อนของการจัดการเรียนรู้รายวิชาด้านการวิจัยทางสังคมศาสตร์ในระดับบัณฑิตศึกษา 2) ศึกษาความคิดเห็นต่อการนำวิธีจัดการเรียนรู้จากการปฏิบัติมาใช้เพื่อแก้ไขจุดอ่อนของการจัดการเรียนรู้รายวิชาด้านการวิจัยทางสังคมศาสตร์ในระดับบัณฑิตศึกษา และ 3) พัฒนารูปแบบการจัดการเรียนรู้รายวิชาด้านการวิจัยทางสังคมศาสตร์ด้วยการเรียนรู้จากการปฏิบัติ ประชากรเป้าหมาย คือ อาจารย์ที่มีประสบการณ์สอนรายวิชาด้านการวิจัยทางสังคมศาสตร์ระดับบัณฑิตศึกษาของมหาวิทยาลัยสวนดุสิต จำนวน 9 คน เครื่องมือวิจัย คือ แนวการสนทนากลุ่ม วิธีวิเคราะห์ข้อมูล ใช้การวิเคราะห์เนื้อหาและการเปรียบเทียบข้อมูล

ผลการวิจัย พบว่า

1. จุดอ่อนของการจัดการเรียนรู้รายวิชาด้านการวิจัยทางสังคมศาสตร์ในระดับบัณฑิตศึกษา คือ การสอนที่เน้นทฤษฎีขาดการปฏิบัติจริง ขาดการอภิปรายและการแบ่งปันประสบการณ์ ส่งผลให้ผู้เรียนไม่สามารถนำความรู้จากการเรียนไปใช้ในการทำวิทยานิพนธ์ได้อย่างมีประสิทธิภาพเท่าที่ควรเป็น

2. ตามความเห็นของผู้ร่วมสนทนากลุ่ม วิธีจัดการเรียนรู้จากการปฏิบัติ มีความเหมาะสมกับเนื้อหารายวิชาด้านการวิจัยทางสังคมศาสตร์ในระดับบัณฑิตศึกษา และสามารถแก้ไขจุดอ่อนของการจัดการเรียนรู้รายวิชาที่เป็นอยู่ในปัจจุบันได้

3. ในการวิจัยครั้งนี้ ได้พัฒนารูปแบบการจัดการเรียนรู้จากการปฏิบัติสำหรับรายวิชาด้านการวิจัยทางสังคมศาสตร์ในระดับบัณฑิตศึกษาขึ้น โดยให้รายละเอียดใน 4 เรื่อง ได้แก่ 1) หลักการและแนวคิดของรูปแบบ 2) วัตถุประสงค์ของรูปแบบ 3) กระบวนการเรียนรู้ของรูปแบบ 4) ผลที่ผู้เรียนจะได้รับจากการเรียนรู้ตามรูปแบบ

คำสำคัญ: รูปแบบการจัดการเรียนรู้, การเรียนรู้จากการปฏิบัติ, รายวิชาระเบียบวิธีวิจัยทางสังคมศาสตร์ในระดับบัณฑิตศึกษา

[1] รองศาสตราจารย์ ดร. สังกัดบัณฑิตวิทยาลัย มหาวิทยาลัยสวนดุสิต; Associate Professor, Dr., Graduate School, Suan Dusit University

E-mail: chanram6892@gmail.com

Abstract

The objectives of this research were: 1) to study the weaknesses of learning management in social science research methodology course at graduate level 2) to study opinions on the use of active learning to improve the quality of learning management in social science research methodology course, 3) to develop an active learning management model for social science research methodology course at graduate level. The target population was 9 instructors with experience in teaching the research methodology course for graduate education at Suan Dusit University, Thailand. The research tool was a group discussion guideline. Data analysis was analyzed by content analysis and constant comparison method.

The research results revealed that

1. The weakness of learning management in social science research methodology course at graduate level was the theory-based approach, the absence of practical skills, and the lack of discussion and sharing experiences. As a result, the students were unable to apply knowledge gained from their studies to their thesis as effectively as they should be.

2. According to the opinions of the target population, active learning was appropriate for content subject and able to improve the quality of learning management in social science research methodology course.

3. In this research, the active learning model in social science research methodology course was conducted and explained in detail in 4 topics: 1) Principles and concepts of the model, 2) Purposes of the model, 3) Learning process of the model, 4) Student learning outcomes after applying the model.

Keywords: learning management model, active learning, social science research methodology course at graduate level

Introduction

Education is an important process in developing high-quality people to reinforce the progression of the nation. Graduate education aims to encourage students to develop their knowledge and skills for academic excellence, be able to create new knowledge, and apply it for the benefit of society. To achieve that goal, the student development process should be carried out through learning and research systematically. Research is; therefore, at the heart of graduate education which acts as a tool for cultivating graduates with desirable attributes that meet the society's expectations.

Although research at the graduate level is important, several research findings have identified problems that obstruct graduate education of some universities unable to produce high quality research. For example, the results of research are incapable to create any new knowledge, to be utilized, to have any value added, or to be published in national or international journals effectively (Pradit Meesuk and Songtham Theerakul, 2008). The aforementioned problems are caused by many factors. The solution; therefore, requires a management process, starting from the development of learners to have a clear understanding of research methodology in social science until enabling them to apply the knowledge to conduct a thesis effectively. In this research, Suan Dusit University, Thailand is designated as the target university to improve the weakness of learning management in social science research methodology course at the graduate level.

Objectives

1. To study the weaknesses of learning management in social science research methodology courses at the graduate level of Suan Dusit University.

2. To study opinions on the use of active learning to improve the weakness of learning management in social science research methodology course.

3. To develop an active learning management model for social science research methodology courses at the graduate level.

Literature Reviewed

Active Learning is derived from "Learning by doing", a term that is used to refer to a learning process that allows students to participate in every step of the learning activities. In this process, students are the center of learning management to motivate them to perform various activities and behave to express shared responsibility. The organized learning process emphasizes the use of an advanced thinking process to solve problems systematically and creatively. Using interactions among students and between students and instructors to exchange experiences until the students can create new knowledge from the activities and achieve the desired learning outcomes (Warinporn Funfuengfu, 2019). In Thai literature, the word active learning is translated using different terms such as enthusiastic learning (Suchada Kaewpikul, 2012), curiosity learning (Priyanuch Phromphasith, 2016), proactive learning (Uthai Dulyakasem, 2017), etc. Although these words are different, all of them are the same in purpose to reflect the opposite thing of

"passive learning," in which the students are supposed to obtain knowledge without engaging themselves in learning activities.

The concept of active learning originated from a learning theory "Constructivism" that emphasizes the learning process rather than the subject contents to help learners connect their previous knowledge and create new knowledge on their own through media or learning activities. In this process, Instructors must change their role to be a facilitator to motivate, facilitate, and enable the learners to learn by using higher-order thinking skills such as analysis, synthesis, and evaluation to obtain meaningful knowledge and be able to apply it effectively (Sataporn Pruitthikul, 2012). When the concept is developed into an active learning approach, its focus is on student choice to determine what they want to learn or to do until they obtain knowledge and understanding of that topic in depth. It is "learner- focused", an important characteristic to create maximum potential in terms of creativity, self-confidence, and taking actions by talking, writing, reading, reflective thinking, sorting out questions, etc. Teaching and learning that takes place is, therefore, active and vibrant whether students work individually, work in groups or learn together in a large classroom. It can change the typical ways of learning into a learning experience that is integrated and not falling apart at any level (Mahmood, Tariq and Javed, 2011).

Active learning that occurs in the context of higher education is a learning process that focuses on student engagement and interaction with learning activities through a variety of practices, such as analysis, synthesis, brainstorming, opinions sharing, case studies, etc. The activities enabled students to develop critical thinking skills, deliberative skills, communication, and presentation. In such activities, the students have to interact with the teacher and with other learners. The teacher has to change his/her role from imparting knowledge as a way of lecturer to a facilitator who motivates students to be enthusiastic in doing various activities and provides a suitable learning environment. The teacher will act as a coach or mentor who inspires, advises, and seeks techniques or learning methods and resources to enable meaningful learning.

Since active learning can stimulate students to develop advanced thinking processes, the students are not just listeners. Instead, they have to read, write, ask questions, and discuss. Taking the previous knowledge and learning need of the students into account, will enable the students to change their role from knowledge recipients to participants in knowledge creation.

Active learning as mentioned above brings benefits to both learners and instructors in many ways (Rasmi Srinon, et al, 2018)

1. Encourage learners to have freedom of thought and action. Have the opportunity to practice and use judgment in thinking and making decisions in the implementation of such activities; learners can determine their learning direction and find their learning style, leading to the idea of self-determination

2. Promote effective cooperation by collaborating in group operations, leading to common success

3. Motivate learners to devote themselves to their studies and demonstrate their knowledge and ability

4. Contribute positive development of both learners and instructors. Learners are allowed to utilize their skills, interest, and capability which is the individual difference to express themselves and their potential. On the other hand, the role of the instructor is changed by seeking a variety of methods and activities to enhance the potential of each learner. In this way, the instructor will develop his teaching skill and his learner's potential at the same time.

However, there is some awareness in active learning management: organized activities that focus solely on behavioral activities, regardless of the cognitively active of the learners can reduce learning efficiency. When the teacher's role changed into a facilitator, it may sometimes lead to a state of haphazard learning and experience sharing among learners. In addition, the development of the cognitive domain of learning by allowing learners to do activities by themselves is suitable to use in comprehension, application, or analysis level rather than knowledge level because it will waste time and not be as effective as it should be (Office of the Basic Education Commission, Ministry of Education, 2019).

Several research in higher education pointed out that the implementation of active learning had a positive effect on students' achievement. According to Akınoğlu and Özkardeş Tandoğan (2006), the application of a problem-based active learning model affects students' conceptual development positively and keeps their misconceptions at the lowest level. Chan, et al. (2021) mentioned that significant improvements were observed in critical thinking, creative thinking, problem-solving and communication skills with the implementation of active learning. Significant changes were also observed in the knowledge of cognition and regulation of cognition in the metacognitive awareness scales. Moreover, Demirci and Düzenli (2017) identified that Think-Pair-Share (TPS) activities employed in classrooms provide an opportunity for students to revise, practice, and reproduce previously learned knowledge. The strategy can promote active learning and conduct formative assessments in a time-efficient way. The assessment results successfully indicated that the learning points are revisited, and the results of the questionnaire supported the assessments of the teacher. Most of the students revealed that they were satisfied and willing to do the activity again in the future. In the research of Killian and Bastas (2015), the implementation of Team-Based Learning (TBL), one of the active-learning strategies, is to create an engaging introductory class. Its results are opposed to students in lecture-based learning (LBL) classes. Students in TBL classes have much more positive attitudes toward the discipline while demonstrating equivalent performances. Although the research has limitations, the findings indicate that instructors of introductory classes can employ active learning strategies to improve the public face of their discipline while ensuring student learning. In research results of Abu Bakar and Ismail (2020) show that active learning with high motivation and deep learning will encourage students to plan, monitor and evaluate the learning process and manage thought activities. This metacognitive regulation ability will strengthen the student's understanding. Interacting skills, self-regulation skills, and excitement will increase and produce active experiences that positively impact the student's focus and actions during the learning process. Gleason, et al. (2011) found that when engaging pharmacy students in the learning process of active learning, they are better able to apply the knowledge they gain. The use of active learning strategies in pharmacy education also offers strategies for implementing active learning in pharmacy curricula in the classroom and during pharmacy practice experiences.
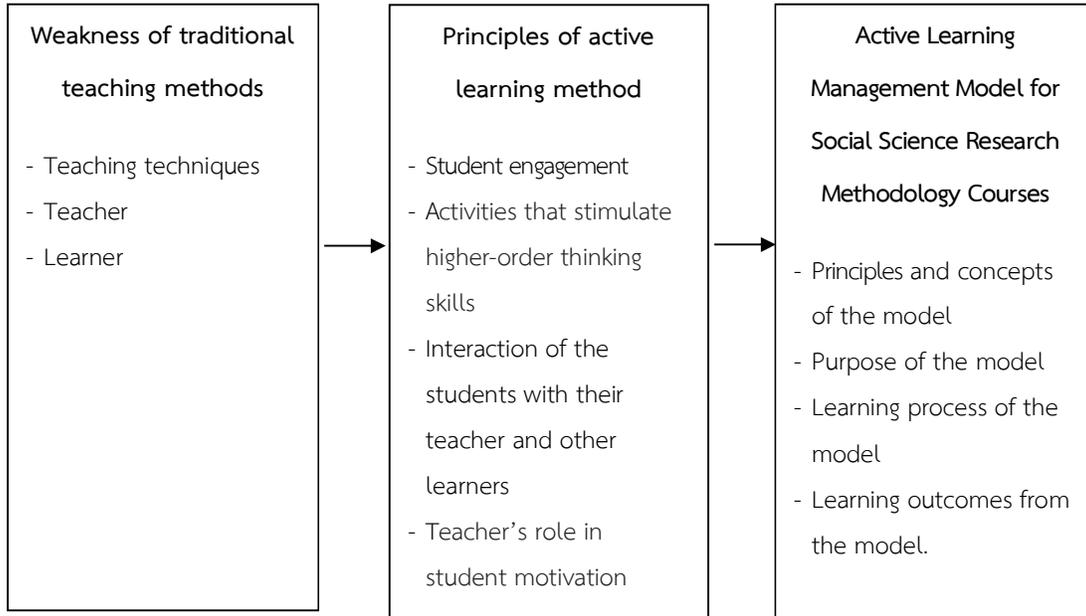
In Jardine and Friedman's (2017) opinion, the course achieved its goals of providing facilitators with effective teaching techniques and reinforcing content knowledge. It created a forum for the facilitators to provide feedback to each other and to the course instructor. Furthermore, the course catalyzed the development of professional skills, enhanced metacognitive abilities, reinforced the benefits of active learning, and exposed facilitators to educational literature.

Although active learning requires more time and energy to learn a particular content, the learning outcomes are worth it when compared to "passive learning" in which the instructor gives unilaterally lecture and ignores learners' feedback or their expression of recognition and understanding. Even in a scientific class letting students perform an experiment following the written steps in the manual. If the students do not realize what question to answer, why the experiment be designed, etc., it is just a scientific practice by instruction in which learners neither use their ideas nor create meaning for what they have learned. In a classroom with active instructors but passive learners, learning achievement is pretty low. In this circumstance, the ones who succeed are often those who have good basic knowledge and high responsibility. This type of learner is able to study well, gets high scores, and achieves required learning outcomes no matter what kind of teaching style. But for the average learner, unilaterally lecture does not help to acknowledge and understand as much as they should be. Most students feel that it seems not taught even though there is teaching. So, attending the class is only for attendance records, sitting and listening without hearing, and being unable to create any knowledge or meaning. Since this method has been used for a long time, there are many learners and instructors who are familiar with it and think it works, because many people are able to graduate with this teaching style both at school and in the university (Wichan Kongtham, 2021).

According to Wichan Kongtham (2021), many instructors believe that teaching at the higher education level cannot involve students in the learning process other than listening and taking notes due to the high volume of the content and several students. Besides, the active learning process requires learner participation in which the instructor can individually check their progression and identify misunderstandings immediately. When there are too many students in the class, the instructor cannot do this easily. In higher education, changing the learning process from "Passive Learning" to "Active Learning" needs encouragement from the university such as: giving an orientation to make instructors and students realize the benefits of active learning and its impacts on students' success; supporting instructors to adapt their teaching style, and organize learning process with various activities and student participation; enabling instructors to practice a process of learner analysis and in-depth assessment effectively for improvement continually. This kind of learning process can make the instructor and the students feel frustrated, annoyed, or exhausted because they have to devote more physical and mental energy than before. Therefore, the university cannot expect this change for the sake of teacher ethical conduct. More intense motivation such as an appreciation for the instructor's dedication, financial or nonfinancial reward, performance appraisal, etc. should be used to drive the desirable changes.

Conceptual Framework

Based on the theoretical concept and related research mentioned above, the conceptual framework of this research can be presented as follows:

Weakness of traditional teaching methods	Principles of active learning method	Active Learning Management Model for Social Science Research Methodology Courses
- Teaching techniques - Teacher - Learner	- Student engagement - Activities that stimulate higher-order thinking skills - Interaction of the students with their teacher and other learners - Teacher's role in student motivation	- Principles and concepts of the model - Purpose of the model - Learning process of the model - Learning outcomes from the model.

Research Methodology

Target Population

This research was conducted by the qualitative method. The target population was 9 instructors, who are experts with experience in teaching research courses in social science at the graduate level of Suan Dusit University.

Research Instrument

The research instrument was a group discussion guideline with 2 components: 1) Reviewing previous experiences of the participants while studying research courses and doing a graduate thesis from their previous institutions. 2) Exchanging the current experiences of the participants regarding their roles as research course instructors and thesis advisors and finding ways to manage all elements of research learning management in an active learning approach.

Data Collection

Group discussions were organized, and all conversation data were recorded and transcribed in written form.

Data Analysis

All collected data were analyzed by the method of content analysis and constant comparison technique. The analytical table was prepared to categorize the information classified by the components of learning management and used them to create a learning management model and approach.

Research Results

When reviewing the past experiences of group discussion participants on their research courses and thesis work, it was found that the factors that satisfy them as a learner were: 1) Advisors with knowledge and ability, 2) Instructors and their learning management that is able to fulfill students' knowledge and their ability to use the knowledge for thesis practices, 3) Sufficient learning materials and facilities for research, and 4) Extra activities during learning and thesis process. However, the problematic factors found in some cases were: 1) Conflict between the student and the thesis advisor, and 2) Student's problems especially poor time management and lack of research capabilities. In the participants' opinion, the best ways to promote research learning and thesis practice effectively were: 1) building academic networks to support student research, 2) having co-advisors to provide additional support and advice on specific aspects of the thesis, 3) encouraging students to read a large number of research papers with additional discussions in order to understand the principles and practices from the research papers read.

From the discussion of the current experiences of the participants regarding their roles as research course instructors and thesis advisors, it was found that the satisfying factors for them were: 1) An intention of the students in both studying the course and doing the thesis, 2) An ability of the students in utilizing knowledge gained from the course in their thesis practice, and 3) An ability of the students in producing the qualified thesis work. However, the problematic factors were: 1) Problems of part-time study for students who are studying together with working; if the students lack attention, they hardly complete their thesis work on time, 2) Problems of "Block Course" class (Studying one subject at a time continuously until the completion as specified in the curriculum). In this case, each subject will be completed in a short amount of time. Due to time constraints, the learning process took place; therefore, solely focused on theory-based teaching, lack of practice and discussion 3) Problems of counseling after class because of time mismatch between students and thesis advisors and 4) Problems with students' ability in time management, learning responsibility, and thesis practice.

According to the participants' brainstorming, it was found that key principles of active learning were able to solve the problems of the traditional method of teaching mentioned above. In participants' opinion, guidelines for improvement include: 1) Encouraging the students to identify the topic and research design of their thesis from the beginning of the course, 2) Developing the students' necessary skills for thesis practice, 3) Organizing a "Thesis Clinic" to solve problems the students faced during thesis practice 4) Updating digital tools and methods for research information accessibility 5) Organizing a research forum to enhance the student's knowledge in research methodology and practice and 6) Recruiting the qualified advisors

Table 1 Comparative analysis of the main principles of action learning with the conclusions obtained from the group discussions.

Elements of learning management	Key Principles of active learning	Conclusion from the group discussion	Learning management model
Course Content	-	- Provide theoretical knowledge on research methodology - Put knowledge into practice in real-world setting	- Mainly adhere to the course descriptions - Classify content into subtopics - Determine appropriate learning activities which integrate both theory and practice
Learning Activities	- Focus on student engagement and interaction with learning activities - Focus on learning activities to stimulate higher-order thinking skills, develop communication and presentation skills, including the skills to use information technology appropriately - Focus on the interaction between learners and instructor - Focus on the interaction among learners	- Knowledge sharing between students and instructor - Discussion to develop students' thinking skills - Allowing the students to choose research topic based on their own interests and use it as a learning and practicing base in each step of the research process - Criticizing student research work by organizing a discussion forum consist of professors, experts, and classmates to point out the strengths and the weaknesses of each research work - Organize short course training to improve knowledge and skills for	- Organize learning activities both in class, outside of class, and self-study - Classroom activities focus on knowledge sharing, discussion, finding conclusions and connecting them to theories - Activities outside of class focus on exploring the research area, formulating research problems together with people in the community, and developing research proposal to solve the problems - Self-study focus on using various kinds of media to help the students learn relevant principles, theories, and research reports/articles needed by themselves - Organize a discussion

Elements of learning management	Key Principles of active learning	Conclusion from the group discussion	Learning management model
		research conduct according to the student needs	forum for students to present their work progression and get feedback from the experts
Instructor Roles	- Prepare learning environment, give advice, encourage the students, find techniques and resources for effective learning	- Facilitate student learning - Reduce lectures, increase giving ideas and advices - Make knowledge summary and link them to theories	- Prepare learning activities according to the course description - Clarify the learning process to the students - Use information technology to create communication channels to provide ideas, advice, and coordination - Be a facilitator for classroom activities. - Coordinate with networks inside and outside the university for activities outside of class. - Coordinate with the network for support student activities outside of class
Student Roles	- Read, think, write, ask questions, discussion	- Self learning from practicing, analytical thinking, observing, drawing conclusions, and conceptualization	- Make understanding on learning process and activities - Participate in learning activities in class, outside of class and self-study - Apply knowledge for personal work both documentation and presentation

Elements of learning management	Key Principles of active learning	Conclusion from the group discussion	Learning management model
Learning Resources/Media	- Provide learning environment and learning resources	- Sufficient amount of research reports and theses (both full texts and research articles) according to the student field of interest - Online academic database	- Self-learning media - Print and electronic resources - Online database - Learning resources in the community
Measurement and Evaluation	-	- Assessment of the students' work both documentation and presentation - Discussion of the classmates on the students' work - Feedbacks from instructors and/or experts on the students' work - Other methods such as behavioral observation, testing, question answering, peer review, self-assessment, etc. - Use appropriate assessment methods to cover intellectual and practical abilities of the students - Focus on formative feedbacks to improve the weaknesses of the students	- Measurement and evaluation during the learning process to check the students' progression - Measurement and evaluation at the end of the learning process to check the students' learning achievement
Instructor Recruitment and	-	- Build a team of multiple instructors with various	- Focus on teachers' qualifications according to

Elements of learning management	Key Principles of active learning	Conclusion from the group discussion	Learning management model
Selection		expertise to suit the students' interests - Focus on characteristics of a profession instructor such as patient and approachable, enthusiastic, strong communication skill, etc.	standard criteria - Teaching team preparation - separation of duties according to team member capabilities

When comparing the key principles of active learning with the participants' opinions, it was found that the key principles could respond to the instructors' requirement in almost all aspects, except the course content. This is because each subject has unique characteristics that the teacher must assess and decide by himself whether the active learning is suitable for that course or not. The comparison led to the "Active Learning Management Model for Social Science Research Methodology Course" construction. The model is detailed in 4 topics including principles and concepts, objectives, learning process, and learning outcomes as follows:

Active Learning Management Model for

Social Science Research Methodology Courses

Principles and Concepts:

The active learning management model was developed to solve the problem of the traditional teaching methods that emphasize theory, but lack practice and discussion. As a result, students are unable to apply the knowledge that they have learned in their thesis work as effectively as they should. The 5 key principles of active learning utilized to develop this learning management model were: 1) Focus on student engagement and interaction with learning activities, 2) Focus on learning activities to stimulate higher-order thinking skills, develop communication and presentation skills, including the skills to use information technology appropriately, 3) Focus on the interaction between learners and instructor, and among learners, 4) Focus on the role of an instructor in motivating learners, providing an appropriate learning environment, consulting, encouraging, finding learning management techniques with a variety of learning resources, and 5) Focus on the role of learners in reading, thinking, writing, asking questions, and discussing together as a way to solve problems of the traditional teaching.

Objective:

To develop the student's knowledge and understanding of the process of social science research methodology and can effectively apply them for thesis practice.

Learning Process:

Preparation Stage:

1. Teacher: Teachers are very important in learning management. Teachers have to change their roles from teaching to providing learning environments, giving advice, encouraging, and finding various ways of managing learning techniques and resources. Therefore, the preparation plans for teachers are as follows:

1.1 Teacher Recruitment:

1.1.1 Have qualifications according to standard criteria of the graduate program of the country

1.1.2 Be proficient and expert in conducting research that is directly related to the student's field of study

1.1.3 Be able to give advice and encouragement to students

1.1.4 Have networks or be able to create networks both inside and outside the university for the benefit of learning activities

The quality mentioned may not exist in anyone entirely; therefore, a teaching team should be organized and utilized individual talents to complement a team of fully qualified instructors.

1.2 Teaching Team Preparation: This includes the shared understanding of the learning management model and approach, separation of duties according to their capabilities, and creation of communication and coordination channels for tracking progression in a participatory manner.

2. Learning Field: The field for research learning and practice is an important tool to overcome the weaknesses of traditional theory-based teaching methods. Before adopting the learning management model and approach in practice, the university or the faculty has to prepare a learning field for out-of-class activities. In addition, the appropriate person in the field should be recruited and prepared as a local facilitator to support the learning process in the field

3. Media for Self-Learning: Since the model aims to reduce the number of lectures in class. Students should be allowed to learn in real situations, take action to build knowledge; and apply knowledge on their own. To ensure that students will gain complete theoretical knowledge of basic research methodology as specified in the course description. Important content must be prepared in the form of documents or electronic media for self-learning.

4. Lesson Plan: The lesson plan for the courses at the higher education level must be prepared in the form of "Course Specification" and used as a guideline for learning management in accordance with the objectives of the curriculum. In the preparation of course specification details, the key concepts of active learning must be considered. The operation is carried out step by step as follows:

4.1 Study the curriculum documents to understand its objectives and educational management methods.

4.2 Use the course descriptions and expected learning outcomes specified in the curriculum documents as a learning management framework.

4.3 Instructional design to complete total hours and sessions of learning.

4.3.1 Set up the topic of each session of learning and define the learning objectives and outcomes of each topic.

4.3.2 Determine each learning activity focusing on key concepts and principles of active learning. Select appropriate learning methods and techniques to achieve the intended learning objectives and outcomes. Balance the proportions between in-class, non-classroom, and self-study.

4.3.3 Set up learning media to cover in-class, non-classroom, and self-study by using the advantages of information and communication technology.

4.3.4 Determine appropriate measurement and evaluation methods under the key principles of active learning which can clearly state the achievement of expected learning outcomes.

4.4 Provide clear instructions on how to use the learning methods and techniques of the course to create a clear understanding for learners before starting the learning activities. The details in the instructions include clarification of the teaching schedule, instructors' role, learners' role in making learning activities successful, basic rules and guidelines for group etiquette, methods for measuring and evaluating the learning outcomes, learning support, and communication channels between learners and the team of instructors.

Learning Management Stage:

The teaching team will work together to manage learning activities for students by using the details of the course specification prepared in the preparation process as a guideline for organizing activities.

Learning Strategy Evaluation Stage:

At the end of each step of the learning process, the effectiveness of the approach should be assessed by appropriate tools, such as assessing the responsibilities of assignments, practical observation, participation in discussions, presentations, peer review, taking short quizzes, comparing the results before and after classes, asking students' opinions on how activities are classified as contributing to their learning, etc.

Learning outcomes:

The model aims to enable students to practice various activities by themselves until they gain knowledge and understanding as well as various skills that are developed along the process. The outcomes that learners will obtain include participation in the learning process, self-organization of the learning system and knowledge building, developing the potential of the brain in thinking, problem-solving, and applying knowledge, interacting among learners in collaboration, co-responsibility, discipline at work, and creating incentives for learners to devote themselves in learning to represent their knowledge and abilities.

Discussion

According to this research results, the weakness of learning management for social science research methodology courses at the graduate level that appeared in the past and still can be found today is the theory-based teaching that lack practicality, discussion and experience sharing. As a result, students are unable to apply the knowledge gained in their thesis work as effectively as they should. The research, therefore, aims to find a solution for the problems by seeking a learning management model that can change the situations in which the learners are unilateral recipients to active learners who participate in every step of the learning process until able to create knowledge and apply it on their own. (Warinporn Funfuengfu, 2019).

This developed model is an application of the key concepts and principles of active learning in learning management for social science research methodology courses at the graduate level. According to this model, the situation changes required systematic management to drive every element of education in a harmonious direction. This research is only a preliminary step to design and plan operations in advance until being confident in its ability to manage active learning in the specified course effectively. Taking the learning management model into practice are still many things to prepare, such as self-study media development to reduce lecture content in class. Building a field for research learning and practice out the university where the faculty members are continually working on research and the students can participate in learning and doing research with their instructors. And, the model testing operation to find out its efficiency and effectiveness before implementation. This research will be the beginning of a change that allows a given course learning to take place in a real space outside of the classroom. The classroom will only be an area for knowledge sharing and connecting experiences to theory. The classroom layout will be less important than classroom activities. Application of information and communication technology appropriately will make classroom activities happen anywhere, anytime whether there is a "Classroom" or not.

Recommendations

1. Reporting research results and guidelines for the model utilization to Suan Dusit University to obtain policy support.

2. Organizing a seminar to disseminate research findings to stakeholders and interested persons. Building network and cooperation for learning improvement at the graduate level.

3. Implementing the model in research courses to examine its effectiveness and efficiency.

4. Operating research projects to develop necessary supportive resources for the model implementation such as online-based media for self-learning, and social laboratory for research learning and practice.

References

Abu Bakar, M. A., and Ismail, N. (2020). Mathematical instructional: A conceptual of redesign of active learning with metacognitive regulation strategy. *International Journal of Instruction, 13*(3), 633-648.

Akınoğlu, O. and Özkardeş Tandoğan, R. (2006). The effects of problem-based active learning in science education on students' academic achievement, attitude and concept learning. *Eurasia Journal of Mathematics, Science & Technology Education, 3*(1), 71-81.

Chan, C., et al. (2021). Enhancing generic capabilities and metacognitive awareness of first-year nursing students using active learning strategy. *BMC Nurse, 20*(81). from https://doi.org/10.1186/s12912-021-00601-7

Demirci, C. and Düzenli, H. (2017). Formative value of an active learning strategy: Technology based think-pair-share in an EFL writing classroom. *World Journal of Education, 7*(6), 63-74.

Gleason, B.L., et al. (2011). An active-learning strategies primer for achieving ability-based educational outcomes. *American Journal of Pharmaceutical Education, 75*(9)*,* 1-12.

Jardine, H. and Friedman, L. (2017). Using undergraduate facilitators for active learning in organic chemistry: A preparation course and outcomes of the experience. *Journal of Chemical Education, 94,* 703–709.

Killian, M. and Bastas, H. (2015). The effects of an active learning strategy on students' attitudes and students' performances in introductory sociology classes. *Journal of the Scholarship of Teaching and Learning, 15*(3), 53-67.

Mahmood, M.A., Tariq, M., Javed, S. (2011). Strategies for active learning: An alternative to passive learning. *Academic Research International*, *1*(3), 193-198.

Office of the Basic Education Commission, Ministry of Education. (2019). *Supervision guidelines to develop and promote active learning according to the policy: Reduce Time to Study-Increase Time to Know.* https://www.sobkroo.com/articledetail.asp?id=615

Pradit Meesuk and Songtham Theerakul. (2008). *The crisis in the quality of graduate education and the role of universities.* In Thaksin University, the solution of the national crisis (Collection of articles on Thaksin's academic conference) 16-19 August 2008, Thaksin University, Songkhla Campus, 119-143.

Priyanuch Phromphasith. (2016). *Active Learning Management Manual for Hu.So. at KPRU.* Faculty of Humanities and Social Sciences, Kamphaeng Phet Rajabhat University.

Rasmi Srinon, et al. (2018). Proactive learning management in the age of Thailand 4.0. *Journal of Educational Administration, Silpakorn University, 9*(2)*,* 331-343.

Sataporn Pruitthikul. (2012). The quality of learners arises from the learning process. *Journal of Educational Administration Burapha University, 6*(2)*,* 1-13.

Suchada Kaewpikul. (2012). *Mathematic Activities Development using Active Learning by Focusing on Think-Pair-Share technique to Promote Mathematic Learning Achievement and Learning happiness of Mathayomsuksa 2 Students with Low Mathematics Achievement.* [Master's Thesis]. Srinakharinwirot University.

Uthai Dulyakasem. (2017). *Conceptual Framework for Lifelong Education in 4.0 Era of Thai Society.* Nakhon Pathom: Department of Lifelong Education, Faculty of Education, Silpakorn University.

Warinporn Funfuengfu. (2019). Successful active learning management. *Valayalongkorn Review Journal (Humanities and Social Sciences), 9*(1), 135-145.

Wichan Kongtham. (2021). *The Different of Active Learning and Passive Learning.* Faculty of Science, Maejo University.