ASEAN Journal of Education

Journal homepage: https://so01.tci-thaijo.org/index.php/AJE

Development of Learning Achievement with CIPPA Model Teaching Techniques: The Integration of Lecture and Online Teaching

Pennapa Webb*

School of Law and Politics, Suan Dusit University, Bangkok, 10300 Thailand

A r t i c l e   i n f o

A b s t r a c t

This research objective was to compare the learning achievement of students enrolled in an ASEAN political course between pre-study and post-study, who studied using the CIPPA Model teaching technique. Purposive samples of 44 students in the third year and were studying in the course of Political Science and Governance in Southeast Asia. Research tools used in the study consisted of 1) a lesson plan in the Southeast Asian Politics and Governance course, and 2) an analytical learning achievement test. The results are discussed using descriptive statistics. The pre-study and post-study test scores were compared using the t-test formula and statistics to prove the hypothesis.

The research results showed that from the comparison of pre and post test scores, it was found that the t-test statistic had a Sig. (2-tailed) value of .000, which was less than the statistical significance level of .05. It could explain that when students are taught with CIPPA Model teaching techniques that combine lecture-style teaching with online teaching, retention improves. In addition, there was a statistically significant increase in the post-test score at .05. The hypothesis was accepted, that is, students who were taught with CIPPA Model teaching techniques that combined lecture-based teaching with online teaching have higher academic achievement.

Introduction

New characteristics of learning development is very important in the post-modernization. In accordance with the Higher Education Qualifications Framework of 2015, graduates' characteristics are based on a new 5 prospect areas namely; 1) morality and ethics, 2) knowledge, 3) intellectual skills, 4) interpersonal skills, and responsibility, 5) thinking skills, numerical analysis, communication and use of information technology.

Therefore, the use of appropriate teaching techniques is an important factor in the development of learners to gain knowledge according to the subject matter. This means engaging learners in the class to develop knowledge, thinking skills on their own, and in class interaction with others. The CIPPA Model offers teaching techniques that focuses on learners. It is the center for students to participate in teaching and learning as well as giving students the opportunity to participate in various

activities. That teachers and students work together in the classroom, physically, socially, emotionally, and intellectually, enabling learners to learn well and effectively emphasize on students' knowledge, thinking and systematic decision making. This enables students to build on their knowledge and ability to discover new knowledge by oneself and apply it to daily life (Webb, 2012). This is in line with the key concepts of education management in the 21st century, an active learning model that is student-centered. (Student-Center) (Office of Higher Secondary Education Administration, 2015).

The situation of the Covid-19 epidemic caused a dramatic change in every sphere of the world and also in the sphere of Thai education, according to the Ministry of Public Health's campaign section during the Covid-19 outbreak. Teaching requires great adaptation. After this, the traditional teacher-centered instructional management system using a lecture method may not be sufficient for the learners anymore. Teaching and learning management is necessary to change the perspective from the traditional paradigm to the new paradigm. It is a learning that goes beyond the simple acquisition of knowledge to the current focus on developing skills and attitudes, thinking skills, problem solving skills, organizational skills, positive attitudes, self-respect, innovation, creativity communication skills, technology skills and values (Webb, 2018). Currently, technology and information influences the daily lives of people of all ages. All professions must inevitably adapt, especially for the future of the nation. This entails that education at all ages must be prepared to grow along with the changes in the work environment, which is important for the further development of the nation. Therefore, during the period of study, learning must be developed that can promote diverse knowledge skills that are up-to-date in accordance with the modern world, combined with teaching and learning management in the form of online teaching by combining information technology with lecture-style teaching which learners can study and acquire knowledge for themselves. Generally, the learning atmosphere takes place at any time.

The advantage of teaching online is that it focuses on learner-centered learning which offers students the opportunity to participate in teaching and learning. It also helps to enhance the efficiency of teaching for students without limitations since they can learn at any time because there is no limitation of learning restricted only to the classroom or any one place.

Learners develop learning techniques through seeking, searching information manually and can learn anytime, anywhere, and at any time. Therefore, teaching management suitable for learners in the 21st century requires the introduction of modern information technology to enhance learning skills for learners to study and be open to new things and to combine this type of learning with lecture-only teaching. Duangjit (2021). states that learning management by applying information technology is a powerful tool for effective teaching and learning. Noting that well designed online teaching can add more beneficial activities for the learners.

Based on the above information, the researcher is interested in applying the CIPPA Model teaching technique as a guideline for teaching and learning management in order to develop student learning achievement. This is achieved by combining lecture-based teaching with online teaching in the course Politics and Governance in Southeast Asia.

Objective

The objective of this research is to compare learning achievements in ASEAN political content between pre-study and post-study of the 3rd year students in the Bachelor program of Political Science with the CIPPA Model teaching technique that combines lecture-based teaching with online teaching.

Literature review

CIPPA Model teaching concept

CIPPA Model is a teaching technique that teachers can be used as the main model of teaching and learning which offers various learning activities for students. The methods for organizing teaching and learning processes according to CIPPA Model can implement a variety of methods and processes in the classroom, which may be organized in many formats for teachers.

In accordance with the Ministry of Education and Sports of Lao PDR's guidelines, the Teacher Training College of Lao PDR is improving the teaching/learning curriculum and teaching methods to ensure they are suitable for the modern era in order to upgrade the college to become a development institution and a center of effective learning. Knowledge of teaching has been used, and new teaching methods are being researched and tested to be employed in the teaching/learning process in order to improve Laos' education system step by step.

Definition of CIPPA Model teaching techniques

Teaching management using CIPPA Model based on the concept of Khamanee (1999) who described CIPPA as a principle that can be used in organizing various learning activities for learners. Organizing the teaching and learning process according to the "CIPPA" principle can use a variety of methods and processes and can be organized in many forms.

Khammanee (2013 referenced in Buarikan, 2016) noted that CIPPA Model of teaching and learning management is derived from 5 main concepts, which are basic concepts in educational management as follows:

1) Knowledge Creation Concept (Constructivism), 2) Concept of Group Process and Cooperative Learning, 3) Concept of Learning Readiness, 4) Concept of process learning, and 5) Concept Transfer of Learning.

Learning Activities according to the concept of the CIPPA Model

In organizing learning activities using the concept of the CIPPA Model according to Khamanee format (2013, referred to in Buarikan, 2016). The steps for organizing learning activities are as follows.

Step 1 Review of previous knowledge: This step is to extract learners' prior knowledge on the subject to be studied. To help learners be ready to connect new knowledge with their previous knowledge.

Step 2 Seeking New Knowledge: This step is seeking new information from learners from sources or sources of knowledge which teachers may provide to learners or provide advice on various resources.

Step 3 Study to understand new information/ knowledge and link new knowledge with previous knowledge: This is the stage where learners study and understand the information/knowledge acquired. Learners create meanings of new information/experiences using different processes on their own.

Step 4 Sharing knowledge with the group: This is the stage where students use the group as a tool to check their understanding and broaden their understanding. This will help learners to share their knowledge with others.

Step 5 Summarizing and Organizing Knowledge: This stage is the finalization of all acquired knowledge, both old knowledge and new knowledge, and organize the things learned into an orderly system so that learners can easily remember what they learn.

Step 6 Practice and/or Performance: This step gives learners the opportunity to showcase their knowledge building work to others. This allows students to reinforce or verify their understanding. and help encourage students to use their ideas.

Step 7 Applied Knowledge: This step encourages learners to practice applying their knowledge in a variety of situations. After applying the knowledge, the results of the application may be presented again, or the work may not be presented in the 6th step, but the summaries are included. It can also be displayed at the end of the application step.

Steps 1-6 are the process of creating knowledge (Construction of Knowledge). Step 7 is a step that helps learners to apply knowledge (Application). This format of steps acknowledges fully qualified according to CIPPA Model.

From the above concept, the researcher applied the CIPPA Model teaching technique in the research process to develop the student's achievement under this research.

Learning achievement concepts

Achievement it is the characteristics, knowledge, and abilities of learners as a result of acknowledging knowledge from all experiences gained from learning activities. Learning activities encourage learners to develop skills, knowledge, and abilities enabling the learner to change behavior for increase self-development in various fields.

Panyadee (2010) deemed that learning achievement refers to knowledge or skills that have been learned. That results of the learning given by the teachers' lessons may be considered by test scores or grades.

Wangpanich (2010) stated that learning achievement refers to the knowledge and ability of a person resulting from participating in learning. It is a change in behavior and experience. The learning can be through training or taking exams.

Thikatti (2007) summarized the meaning of learning achievement as knowledge or skill which is developed by working together and requires effort in both the intellectual component and non-intellectual components manifested in the form of success that can be measured by using a test or the grades given by the teacher.

Taranet (2017) summarized learning achievement, meaning the result of learners' success in knowledge, skills and thought processes that enable learners to be effective in learning or self-acquiring knowledge that can be measured with an achievement test.

Mehran (1976 cited in Chuchuay, 2008) defined learning achievement as the knowledge, skills and

abilities of learners in different areas of the brain for each subject study, which can be measured from an achievement test.

Chupinit (1997 cited in Webb, 2018) defined learning achievement as the success in trying to access knowledge. This is caused by work that requires effort, both the intelligence-related and the non-intelligence components expressed in the form of scores or cumulative grade point average This can be observed from general measurements or tests.

In conclusion, the learning achievement refers to skills, knowledge, and abilities of learners that results in learners developing knowledge and increased thinking skills. Learning achievement is measured after participating in learning assignments from a test.

Lecture concepts

Lecture teaching is a teaching method in which the teacher has the main role in determining the activities that occur and creates learning materials in the form of textbooks. It is a teaching style in which the student is only the recipient.

The descriptive teaching method is learning management. The teacher is in charge of preparing the subject to be taught from various learning sources and conveys it to the students by lecturing, storytelling, and using accompanying media. Students are encouraged to discuss and ask questions.

Lecture-based teaching is a typical classroom teaching method in which the teacher lectures or explains the subject matter in sequence according to the teaching action plan. Along with relevant examples, key topics are written on the board, reviewed, asked questions, and practiced exercises to test comprehension and attract learners' attention. Learners take part in asking and answering questions. Learners are responsible for obtaining knowledge. (Tiamsereewong, 2015). This teaching method focus is the transfer of knowledge from the teacher to the learner. Teachers will have to change from being a knowledge transferor to being an advocate that allows learners to turn information into knowledge and bring knowledge as a tool to practice and make it useful. It is learning to build knowledge and there must be a culture of browsing (Create a culture of inquiry).

Chaisri (1992) noted the meaning of teaching in that normal teaching is a teaching style that focuses mainly on lectures and teaching is based on the manual of the Department of Academic Affairs.

Department of Academic Affairs as cited in Piromkham (2003) defined the meaning of normal

teaching that refers to learning management for students to learn by the teacher who prepares educational material, describes the content, knowledge and understanding of the subject matter to be taught from the textbook as well as prepare textbooks or reference books and collect all the stories to convey to students by lecturing, storytelling, using teaching aids. It includes teachers and students discussing and asking questions as well as helping to summarize the story of what has been learned by the teaching process as follows:

(1) Introduction to the lesson is a review of prior knowledge. Inform learning objectives and draw learners to new content by using a variety of methods such as games, roleplaying, fairy tales, songs, etc.

(2) Instructional activity stage consists of presenting learning content to learners by having students use methods such as discussions, questions, oral answers, practice exercises. Doing activities according to worksheets or working in groups together with the use of real teaching materials, pictures, worksheets, or teaching aids.

(3) Lesson summary involves teachers and students participating together to summarize the principles and content.

(4) Measurement and evaluation consists of an examination to determine whether a student has achieved the set learning objectives. If students are not able to achieve the objectives, they will be given a remedial exam before continuing the course. By observing the behavior of students during activities, answering questions, doing exercises, and examination of the test.

In conclusion lecture is a teaching and learning management in which the teacher is primarily responsible for lectures that use the media from the textbooks. Through lectures, storytelling, the use of teaching media, teaching management activities are mostly interactive with questioning and assignments. Students will attend class on time. In this type of lecture-style teaching methods, students and teachers have a close relationship through learning activities. Teachers can explain and answer questions when students have doubts throughout the course.

Online teaching concepts

Online teaching management or web-based learning management has a different teaching style than normal classroom teaching. The traditional teaching and learning management in most classrooms is characterized by an emphasis on the teacher as the input of knowledge to the learner, thus the learner is not eager to seek

additional knowledge. Web-based learning management is learning management with different learning conditions from the original format. The online teaching relies on the potential and capabilities of the Internet network which contains the teaching materials and is a technology to help support teaching and learning through data retrieval. The network connection enables learners to study anywhere and at any time. Teaching and learning in this manner has many names such as Web-based Instruction, Web-based Training, World Wide Web (www-based Instruction), teaching through electronic medias, etc.

Sikkhaman (2011) explained that online teaching is an instructional model with a systematic teaching and learning design. The objectives or goals of teaching and learning management are clearly defined. Teaching and learning according to educational theory knowledge transfer involves usage of information and communication technology as a tool with the current focus on the use of the Internet network. Thus, learners can access and learn without limitation of place and time. Learners can interact with lessons and teachers. The method of online teaching depends on teachers selection of teaching materials such as text, still images, moving images, audio, VDO, multimedia, MOOC and others to stimulate students' interest. The use of such media will help learners to increase their understanding of the content. In addition, the teacher and students in the class can communicate, consult, exchange ideas similar to studying in general classes but through online social network systems such as E-mail, Chat, Line, Facebook WBSC-LAM, Microsoft Team, Zoom, etc. The online social networks allows for communication, learning at all times between the teacher and the learner. For this reason, online learning is suitable for everyone. The important characteristics of online learning is learners can be anywhere. Students can choose to study at any time, depending on the convenience of the learners because online learning is available for service all the time. Learners can choose subjects according to their needs on the linked website, widening the scope of learning and to understand the content more deeply.

From what the author has presented above, it can be concluded that online teaching is a teaching method that brings modern technology media to participate in teaching and learning. It is a teaching method that attracts learners to study and research as well as search and learn by themselves with the opportunity to learn at any time and not limited to learning only within the classroom.

Conceptual framework

From reviewing related concepts, the researcher created a conceptual framework for research with the CIPPA Model instructional management concept that combines lecture-based teaching with online teaching as shown in Figure 1.

Figure 1 Conceptual framework

Research methodology

Population and samples

Population and sample selection

The population consisted of students enrolled in the Bachelor program of Political Science at the School of Law and Politics, Suan Dusit University. In semester 1/2020, a total of 44 students were enrolled in a course on Politics and Governance in Southeast Asia.

Sample

The researcher selected all enrolled students in the course on Politics and Governance in Southeast Asia as the study sample with a total of 44 students.

Research Instrument

The experiment was conducted as follows:

(1) Lesson plan with CIPPA Model teaching technique that combines lecture-style teaching with online teaching.

(2) Achievement test for ASEAN political content before course was conducted and after course was conducted of the 3rd year Bachelor of Political Science students. The course was taught with the CIPPA MODEL teaching technique that combined lecture-style teaching with online teaching.

The researcher examined the reliability of the learning achievement test on ASEAN political content. The content validity was considered by the Index of item objective Congruence (IOC) Validation was based on the test and learning objectives such as the consistency with the learning objectives. The acceptable consistency index must be at a value of 0.50 or higher (Kayawan, 2007, cited in Bindulem, 2019). The researcher had 3 experts to examine the test.

From the consideration of experts, it was found that the IOC of the ASEAN Political Achievement Test

was between 0.67-1.00 for all items, meaning that all items of the test could be used to measure student achievement development.

Schemes used in research

The study was conducted during weeks 4 to 7 and totaled 12 hours. The researcher applied a conceptual framework for learning in the 21st century that requires learners to have 3 skills, namely: 1) learning and innovation skills 2) Information and media technology skills and 3) life skills and careers (Kengkanrua, 2017). Below a guideline for planning teaching and learning in the course is presented.

Before class

Instructors planned and designed a learning management plan that combined lecture-style teaching with online teaching by analyzing and selecting the course content to be used in the experimental study. From studying expected learning outcomes and learning content (Learning Outcome: LO) of the Bachelor of Political Science program 2020 Update Program (Bachelor of Political Science Program) From the selection, the content of the topic "ASEAN Politics" was part of the course of Politics and Governance in Southeast Asia. Based on the concept of Khamanee (2013) which is the basic concept of educational management, which are:

(1) Knowledge Creation Concept (Constructivism),

(2) Concept of Group Process and Cooperative Learning,

(3) The concept of learning readiness (Learning readiness), 4) Concept of learning process (Process learning).

From all 5 concepts, there are 7 steps in the teaching and learning management process, which the researcher used as a guideline for designing a learning management plan to develop learning achievements of 3rd year students of the Bachelor program of Political Science. CIPPA Model teaching technique that combines lecture-style teaching with online teaching are as follows:

Step 1 Reviewing previous knowledge is to extract the students' prior knowledge in the subject to be studied. To help learners be ready to connect new knowledge with their previous knowledge. In which teachers may use a variety of different methods.

Step 2 Seeking New Knowledge is the pursuit of new information of learners from the source or sources of knowledge which teachers may provide to learners or provide advice on various resources for learners to seek new knowledge.

Step 3 Introduction of the course content. The teacher explains and introduces the course content on ASEAN Politics and teaching management with CIPPA Model teaching techniques that combine lecture-style teaching with online teaching. The teacher explains how to manage teaching and the objectives of learning activities during class as well as the evaluation with the criteria of measuring learning outcomes for instruction during the 4th to the 7th Week, (12 hours).

Step 4: Learning management that combines lecture-style teaching with online teaching. The teacher gives instruction on the subject matter of ASEAN Politics with a CIPPA Model teaching technique that combines lecture - style teaching with online teaching. Conduct an experimental teaching of the content according to the lesson plan in Weeks 4 - Week 7, totaling 12 hours. A combined course of lectures on ASEAN Political content combined with online teaching.

During class

In the 4 th - 7 th week, teaching is conducted using the CIPPA Model teaching technique that combines lecture teaching with online teaching.

Step 5 Training for learners to seek knowledge on their own. During the course of teaching the content of ASEAN Politics the instructors will organize activities during the course to promote and encourage students to seek additional knowledge from outside the classroom by searching for information and seeking knowledge and information from various sources that can be used to answer questions or answer questions from the assigned tasks. The instructor introduced knowledge about research approach and data retrieval from various sources such as from libraries or information technology searches according to different websites.

Step 6 Discussion, Exchange/ Summary of Content. Learners can apply the knowledge gained from their studies for discussion and present the results of research studies to exchange in class together with the teacher explaining and inserting additional content to enhance the learner's understanding. Teachers and learners summarize the content together.

After class

At this stage, after the students have completed the content with the CIPPA Model teaching techniques, a summary of information obtained is discussed. The discussion takes place as a whole with teachers and learners exchanging knowledge together and highlighting common ideas in the class. Then the teacher will summarize the area that will be discussed with the

students again for learners to increase their understanding of the content. Then students took the Post-Test with the same set of exams through Platform Microsoft Teams (Platform Microsoft Teams: Ms Teams)

Step 7 Applying Knowledge; After completing all 4 weeks of studying content on ASEAN politics with CIPPA Model teaching techniques that combine lecture-style teaching with online teaching. Learners gained knowledge and understanding of the content. All knowledge can be applied for their life and their future.

The steps for data collection for academic achievement is discussed below.

1. This research is a quasi-experimental research (Pre-Experimental Design). A single-group experimental model with pre-experimental testing and One Group Pretest-Post-test Design with the following experimental characteristics (Saiyot & Saiyot, 1995) details are shown in Figure 2.

Pre-test	Treatment	Post-test
T1	X	T2

Figure 2 One Group Pretest-Post-test Design

Symbolic Meaning
T1 Instead of pre-testing
T2 Instead of the post-test
X   Instead of giving an experiment (treatment), the CIPPA Model teaching technique combines lecture-based teaching with online teaching.

2. Method for conducting the experiment

2.1 Review previous knowledge and understand the teaching, purpose, duration of teaching and learning and 2 hours of learning assessment and evaluation

2.2 Take the pre-test before studying, The pre-test takes 1 hour using a 20-item multiple choice test with a full score of 10 to measure knowledge of ASEAN political content.

2.3 Take the post-test which takes 1 hour after finishing the class and understanding the content with the multiple-choice questionnaire with the same test set.

2.4 The researcher conducted the planned experiment with the experimental group by himself. according to the learning plan that was prepared. It took a total of 12 hours of experimental teaching, details are shown in Table 1.

Table 1 Summarizes the experimental operation of the research

Week	Proceed test
Week 4	Review previous knowledge and discuss teacher and student roles and measurement and evaluation (2 hours total). Take the pre- test before class - ASEAN Political Abilities Test - a multiple-choice test of 20 questions, a full score of 10, to test student's knowledge of ASEAN politics before studying (Pre-Test) via the Microsoft Teams Platform (Ms Teams) (1 hour total).
Week 5	Teach the content of ASEAN politics and sub-topics on Fundamentals of Southeast Asian Countries with CIPPA Model teaching technique that combines lecture-style teaching with online teaching (3 hours total).
Week 6	Teaching content on ASEAN politics (continued) sub-topic "ASEAN RELATIONSHIP" with CIPPA Model teaching technique that combines lecture- style teaching with online teaching (3 hours total).
Week 7	Teaching content on ASEAN politics (continued) sub-topic "Case study on current ASEAN political issues" with CIPPA Model teaching technique and students presenting a summary of ASEAN political content. Then the teacher summarizes the content with the students (total 2 hours) and a total of 1 hour post-study test, which is the original multiple-choice test, 20 items, full score of 10, to test student's knowledge of ASEAN politics after teaching (Post- Test) via the Microsoft Teams Platform (Platform Microsoft Teams: Ms Teams)) (total 1 hour) Summary of teaching experiments with CIPPA Model teaching techniques that combine lecture-style teaching with online teaching.

Data preparation and data analysis

This research data analysis and descriptive statistics were used and conducted with a packaged program for social science research. The details are as follows:

1. Check the knowledge test. Save the scores into a software program for social science research.

2. Comparative analysis of scores by frequency, mean, percentage, standard deviation, and compare test scores with t-test statistic, which is a mean test of one sample group (One-sample test on means). Statistics used in the study compared test scores by using the t-test (Dependent samples) (Srisaat, 2002). After the data was analyzed and processed, the research findings and recommendations were summarized and would be useful for improving teaching methods or techniques for better learning management.

Results

The results of a comparative analysis of the academic achievement in ASEAN politics of Bachelor of Political Science, 3rd year students, are shown in Table 3 as follows:

Table 2 shows the t-test dependent statistic in comparison of pre-study and post-study achievement of 3rd year Bachelor of Political Science students who were taught by CIPPA Model teaching technique that combines descriptive teaching together with online teaching.

Table 2 The t-test dependent statistic was shown in the comparison of pre- and post-study achievement

Learning achievement	n	Test score			
		Test before class Pre-Test	Test after class Post-Test	Difference Post-Test	Sig. (2-tailed)
Average ($\bar{X}$)	44	8.16	14.64	6.48	.000*
Standard Deviation (SD)		1.75	1.51		

* Significant at .05

From Table 2, it was found that students who were taught by CIPPA Model teaching technique had higher academic achievement than before. It was found that the average pre-study test score was equal to ($\bar{X}$= 8.16) and the post-study test score was equal to ($\bar{X}$= 14.64), respectively 6.48 ach.

From the comparison of pre-test and post-test scores, it was found that the t statistic had a Sig. (2-tailed) value of .000, which was less than the statistical significance level of .05. It can be explained that when students are taught with the CIPPA Model teaching technique that combines lecture-based teaching with online teaching there was a statistically significant increase in the post-test score at .05. The hypothesis was accepted, that is, students who were taught with CIPPA Model teaching techniques that combined lecture-based teaching with online teaching have higher academic achievement.

Discussion

The researcher studied under the concept of learning management With the CIPPA Model teaching that combines lecture-style teaching with online teaching. It is a guideline for teaching and learning management. The results of the study led to the following discussions:

From the comparison of test scores before and after studying, students who are taught with CIPPA Model teaching techniques have a higher academic achievement with a statistically significant level of .05. The results of this study are consistent with the studies of Trakunsom (2009), Webb (2012) and Poommarin (2013) who experimented with the concept of instructional management using the CIPPA Model teaching technique. To develop learners' academic achievement with the highest academic results. It was found that teaching with such techniques can effectively develop learners' learning achievement. This concept focuses on teaching and learning based on a student-centered approach. Which focuses on the students to create the concept of knowledge creation (Constructivism)

as well as learning through group process and cooperative learning (Group process and Cooperative learning) and considering learning readiness through learning process (Process learning). From the results of this study, it can be confirmed that using the CIPPA Model teaching technique effectively can be applied in other learning subjects as appropriate.

Conclusion

Teaching management in the modern era is imperative to develop learning for learners by combining a variety of teaching methods that are up-to-date and appropriate to the current situation. It is important for learners to participate in learning activities and are able to seek knowledge by themself with no time and place restrictions. All forms of teaching are important to learners, whether it is a lecture, exam or online tutoring. Teaching methods must be adapted to the progress and change according to the situation. Bringing advances in information technology helps in the learning development process by combining teaching and learning styles. Maximize benefits and achieve higher outcomes for learners. Therefore, the development of learning by combining lecture-based teaching with online teaching is acceptable teaching method. This research is a guideline so that students can develop their learning to their full potential and efficiency.

Suggestions

Proposal for implementing research results

1. From the study, it was found that teaching and learning management with CIPPA Model teaching technique results in the student's academic achievement in a better way. The university or educational institutions should apply the results of this study to teaching in the classroom to improve students' learning.

2. Teachers should adopt various learning management concepts. Participate in the integration of teaching management planning to have a variety of focus on learning achievements of the learners or desirable graduate qualifications.

Suggestions for further research

For those interested in CIPPA Model teaching techniques that combine lecture-style teaching with online teaching there should be further studies as follows:

1. There should be a comparative study. CIPPA Model teaching technique that combines lecture-style teaching with online teaching with teaching with other teaching methods to test learning achievements taught

with different techniques that might have different results.

2. A study should be conducted on the application of the CIPPA Model instructional management concept to teaching and learning with other subject groups and in other courses.

References

Bindulem, T. (2019). *The effect of online teaching on academic achievement of students at Diploma of the Year 1.* National and International Hat Yai Academic Conference. Songkhla: Faculty Business Administration, Hat Yai University.

Buarikan, C. (2016). *Learning management with the zippa teaching style on permutation for students in Mathayom 5.* Chonburi: Burapha University.

Chaisri, A. (1992). *Comparison of Thai language learning achievement the story of Pornvejsandorn Jatkan Kuman of 2nd year vocational certificate students learning with a group process in relation to normal teaching Phichit Technical College.* (Master of Arts thesis Department of teaching Thai language graduate school Come to Kasetsart University). Kasetsart University.

Chuchuay, P. (2008). *Causal Factors Influencing Academic Achievement of Undergraduate Students of Prince of Songkla University, Pattani Campus.* (Master of Education Thesis Measurement and Educational Research Program Prince of Songkla University). Songkhla: Songkhla University.

Duangjit, J. (2021). Application of online teaching in conjunction with learning management with learning concepts. using the phenomenon as a base. *Education Journal Burapha University, 32*(3), 1-10.

Kengkanrua, P. (2017). *Results of learning management by coaching method on number and group action Mathematics To develop 21st century learning skills in critical thinking and problem solving of Grade 3 students.* Curriculum and teaching disciplines Thepsatri Rajabhat University.

Khamanee, T. (1999). Student-Centered Instructional Management: The CIPPA Model (CIPPA MODEL). *Academic Journal, Department of Academic Affairs, 2*(5), 2-30.

Khamanee, T. (2013). Pedagogical science: knowledge for organizing an effective learning process. 17th edition. Bangkok: Chulalongkorn University.

Office of Higher Secondary Education Administration. (2015). *Guidelines for organizing learning skills in the 21st. Century that emphasize professional competency.* Bangkok: Agricultural Cooperative Community Printing House of Thailand Limited.

Panyadee, Y. (2010). *The Development of Learning Achievement with Sequential Thinking Skills. Step by step writing concepts explained with flowcharts.* Bangkok: Charansanitwong Commercial School.

Piromkham, W. (2003). *Comparison of Learning Achievement in Thai Language Learning Subject Group on Words and Functions of Thai Words. of students in Mathayom 2 who teach with an explore teaching method and a normal teaching method.* (Master's thesis of Education). Nakhon Pathom: Silpakorn University.

Poommarin, A. (2013). The Effects of CIPPA Learning Management (CIPPA MODEL) on Sequence and Series on Problem Solving Ability and Mathematical Communication Ability of Mathayomsuksa 5 Students. (Master's thesis of Education). Bangkok: Srinakharinwirot University.

Saiyot, L. & Saiyot, A. (1995). *Educational research techniques* (4th edition). Bangkok: Suwiriyasorn.

Sikkhaman, K. (2011). *A study of achievement in learning subject: Business English Communication Teaching By E-Learning.* Sripatum University.

Srisaat, B. (2002). *Preliminary research* (7th edition). Bangkok: Suwiriyasan.

Taranet, C. (2017). *Developing Learning Achievement in Mathematics on Probability by Teaching and learning management focuses on group processes for students in grade 5.* (Master of Science Program Thesis). Chonburi: Burapha University.

Thikatti, C. (2007). Comparison of learning achievement and learning responsibility. *Thai language subjects received STAD cooperative teaching (STAD) and normal teaching of students in Mathayom 3, Assumption Thonburi School.* (Master's thesis in Secondary Education). Chonburi: Srinakharinwirot University.

Tiamsereewong, S. (2015). *Comparison of the learning achievement of market research subjects of 2nd year vocational certificate students who study with group process teaching method in relation to normal teaching method.* Bangkok: Technical Vocational College of Business Administration.

Trakunsom, P. (2009). *A practical research to develop student-centred learning activities in Science, World and Change subjects by CIPPA Model, Mathayomsuksa 2, TOA Witthaya School (Tubism 1 Wat Kham Sai Thong), Muang District, Mukdahan Province.* (Master of Arts Thesis Ubon Ratchathani Rajabhat University). Ubon Ratchathani: Ubon Ratchathani Rajabhat University.

Wangpanich, P. (2010). *Learning Evaluation.* Bangkok: Roong Ruang Printing.

Webb, P. (2012). *Teaching efficiency by teaching techniques based on the CIPPA Model of Thai academics for students of Public Administration, Pattaya Center.* Bangkok: Rajabhat Suan Dusit University.

Webb, P. (2018). *A Study of the Learning Achievement in Analytical Thinking Politics and Governance in Southeast Asia by using Syndicate teaching techniques.* Bangkok: Suan Dusit University.

Webb

Development of Learning Achievement with CIPPA Model Teaching Techniques: The Integration of Lecture and Online Teaching