A COMPARISON OF LEARNING ACHIEVEMENT USING CIPPA MODEL FOR GRADE 4 STUDENTS OF DEMONSTRATION SCHOOL OF SUAN SUNANDHA RAJABHAT UNIVERSITY, BANGKOK, THAILAND.

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ABSTRACT

The purpose of this research was to compare the science achievement of Prathom Suksa 4 students studied with the CIPPA teaching model and normal teaching. The sample used in this study was students in Prathom 4, Suan Sunandha Rajabhat University Demonstration School, currently studying in Semester 1, the Academic Year 2018, consisting of 2 rooms, 30 students each, totaling 60 students, which were obtained by Cluster random sampling. The research instruments consisted of 8 CIPPA instructional management plans, and 40 learning achievement tests, data analysis by using Mean ($\overline{X}$), Standard Deviation (SD), and standardized tests by using the t-test Independent.

The results showed that the students learning through the CIPPA teaching model had higher science achievement than the students learning through normal teaching at the statistical significance of .05.

Key words: CIPPA Model Management, Learning Achievement

INTRODUCTION

Science plays a very important role in today's world society and the future, because science involves everyone's life, both in daily life and in various careers. Science helps society to develop reasoning in decision making, analytical thinking properly, as a step to help with process skills, to search for knowledge, and have skills to work systematically (Paitoon Suksri-ngam . 2003: 98-122)[5], Educational management must adhere to the principle that all learners are able to learn, and can develop themselves, considered the most important. The educational management process must encourage learners to develop naturally and to the fullest potential (Department of Curriculum and Instruction Development 1999: 21-22). The development of teaching and learning processes is the key to learners' learning and development as much as possible, according to the potential of each individual (Wichan Lertlop, 2010)[7].

At present, students of Suan Sunandha Rajabhat University Demonstration School are unable to search for knowledge and create knowledge by themselves, lack of critical thinking skills, work without system, unable to connect to other related content, and still lack of interaction in group work, resulting in students not fully learning in science, such as the students' academic performance of Prathom Suksa 4, Suan Sunandha Rajabhat University Demonstration School, the Academic Year 2018. Unit 1, Subject: Plant life, student achievement is still at a low level, less than 50 percent, in which students have learning achievement low due to the learning unit 1 , the plant life, is complex, complicated, requires science skills, so students are not able to link knowledge from their previous experience to

new knowledge, and unable to create knowledge by oneself, lack of content relations, lack of critical thinking skills, resulting in low student achievement. The CIPPA MODEL is a form of learning management, which focuses on the students to seek knowledge by themselves, as a coordination of 5 concepts to 1) the concept of knowledge creation 2) concepts of Cooperative learning 3) concepts about learning readiness, 4) concepts of learning, skills, processes, and 5) from learning concepts, it can be seen that the CIPPA learning management is a learning management that encourages learners to learn by themselves, and develop their full potential (Tissana Khemmanee 2010: 281-284)[4], as studied research reports related to learning management. In conclusion, the CIPPA learning management has resulted in students' academic achievement, and the ability to analyze, because the CIPPA Learning Management has guidelines for organizing learning activities, which develop a holistic learning process, making students complete and happy. (Akarin Seemahasan. 2002: 36)[1].

Therefore, the researcher who acts as a science teacher is interested in the principles of the teaching of the CIPPA, applied in teaching from the problems, principles, reasoning and research findings mentioned above. The researcher agreed that teaching and learning should be developed to focus on students to think, do, and solve problems, so the researcher used the CIPPA Learning Management to manage learning, which the CIPPA Learning Management has on academic achievement, the ability to think critically, to science learning of Prathom Suksa 4 students of Suan Sunandha Rajabhat University Demonstration School in order to develop learning achievement, encourage students to have analytical thinking ability to study science subjects more.

RESEARCH OBJECTIVES

To compare the science achievement of students learning by using the CIPPA teaching model and normal teaching method.

RESEARCH HYPOTHESIS

The students learned with the CIPPA Model Teaching and Learning Management had higher science achievement than the students who taught by normal teaching method.

RESEARCH METHODS

1. Sample

1. The population used in this study are students in Prathom Suksa 4, semester 1, the Academic year 2018, Suan Sunandha Rajabhat University Demonstration School, consisting of 2 rooms, 30 students each, a total of 60 people, which are obtained by Cluster Random Sampling, and draw lots in the experimental group and control group as follows: Prathom 4/1 students were experimental group, and Prathom 4/2 students were control group. .

2 Research tools

1. The learning management plan according to the CIPPA Model Teaching and Learning Management, consisting of 8 plans, learning unit 1: about the livelihood of plants for experimentation with Prathom Suksa 4 students of Suan Sunandha Rajabhat University Demonstration School, which has been considered the suitability of learning standards, indicators, learning content, learning outcomes, learning activities, media, measurement and evaluation of learning from 3 experts found that the Index of Item-Objective Congruence (IOC) is between 0.50-0.63, that is, pass the applicable criteria.

2. The Science achievement test, amount 40 items, to be used in the experiment with Prathom Suksa 4 students of Suan Sunandha Rajabhat University Demonstration School. The

non-sample group consisted of 30 people, the quality of the test was the difficulty (p) between 0.50-0.79, the discrimination (r) is between 0.20-0.60, and the reliability of the test is 0.898.

DATA COLLECTION

The process of collecting data from students, who studied with the CIPPA Model learning management plan for Prathom Suksa 4 students, Suan Sunandha Rajabhat University Demonstration School have the following steps:

1. Random primary school students 4, which were randomly selected from 2 classrooms into the experimental group, and the control group of 30 students, Prathom 4/1, was the control group and Primary 4/2 is an experimental group.

2. The researcher conducted the pre-test, both the experimental group and the control group by the science learning achievement test and the normal teaching and learning and take the exam results to score.

3. The normal teaching and learning management for the control group was Prathom 4/1 according to the learning management plan, and the experiment was conducted with the experimental group, Primary 4/2, with the following steps:

Step 1: The step to review previous knowledge, to explore previous knowledge or enhance what students do not have, or to check science skills, and to stimulate the intellect for students to use the previous knowledge.

Step 2: The process of creating new knowledge, encouraging learners to be anxious to know, trying to find answers to questions Various process skills

Step 3: It is a study step to understand new information / knowledge and connect new knowledge with previous knowledge, bringing the knowledge that the students have gathered to exchange with each other, allowing the learners to have more understanding with emphasis on allowing students to study and research from different sources of knowledge practice, train students to use different process skills in order to obtain answers such as cooperative learning, hands-on practice, and field visits.

Step 4: The process of exchanging knowledge and understanding with the group, by encouraging students to exchange knowledge within the group and between groups obtained from studies and discovering new information from various activities. By this step is to train the learners to think and express themselves, to ask questions, to prepare answers, the teacher conducting study activities, and most importantly, the students also interact with physical, emotional, society, and intelligence.

Step 5: Summarize and organize knowledge after discussions to exchange knowledge with each other. Teachers and students will help summarize the knowledge again, so that the learners understand the content more, and are durable to learn, to make fun, to relax, and to make the students organize the knowledge systematically easy to remember.

Step 6: It is the process of showing work when showing scientific work, and it is an evaluation, it is a practice to present the idea of teaching and learning to complete each time. Students will have the work of the group to show for friends from different groups.

Step 7: It is an application phase, focusing on the learners to promote their knowledge related to the subject to be used in different situations in order to solve problems as well as apply knowledge to daily life and to train students to be enthusiastic about the subject.

4. The Researcher conducted the test after the post-test of both the experimental group and the control group by science achievement test, normal teaching, and scoring the test results.

DATA ANALYSIS

Table 1: Pre-test scores of Prathom Suksa 4 students studied in the CIPPA model teaching and learning management plan and normal teaching methods.

Learning management (before learning)	N	$\overline{X}$	S.D.	t	Sig
Experimental group	30	14.73	1.14		
Control group	30	14.53	1.22	.65	.51

From the analysis in Table 1, it was found that scores of students before science learning, which received the CIPPA instruction, were not different from the scores before science learning of students who studied with normal teaching methods.

Table 2: Post-Learning Achievement of Prathom Suksa 4 students who studied according to the CIPPA model teaching and learning management plan and the normal teaching method.

Learning management (after learning)	N	$\overline{X}$	S.D.	t	Sig
Experimental group	30	26.20	1.18		
Control group	30	18.67	3.44	11.03*	.00

* Statistical significance at the level of .05

From the analysis in Table 2, it was found that students who studied with the CIPPA teaching model had higher science achievement than the students learning by the normal teaching and learning at the statistical significance of. 05.

SUMMARY OF RESEARCH RESULTS

The students learned through the CIPPA model learning and teaching had higher science achievement than the students learning by the normal teaching and learning at the statistical significance at the level of .05.

DISCUSSION

The Science achievement of students who received teaching and learning in CIPPA style, had higher science achievement after learning than the normal teaching management, because the science teaching and learning were taught by the CIPPA model is a student-centered teaching model, allowing learners to participate in the pursuit of knowledge, and research Self-knowledge, able to search for knowledge and able to build knowledge by oneself, have analytical skills, work systematically, be able to connect to other related content, have group interaction, be enthusiastic and participate in an interact with the environment or the things around us. Therefore, the CIPPA model teaching and learning management, based on the observation of the researcher, found that the students are more active in science teaching activities such as self-research, teamwork, knowledge creation by oneself, especially in the final step, organizing scientific knowledge, learners will pay special attention by sharing the knowledge of the group out into a knowledge map. In which each

group of students will help each other think, and design their own plans, which in this activity shows that the students help each other to summarize. The knowledge gained, created in the knowledge flow chart, helps students to better remember and understand the content they have learned. Teachers can apply to teach. Because it can increase academic achievement, and teaching techniques should be added so that students are not bored, and encourage students to be more interested in learning, resulting in enthusiasm consistent with Wachiraya Boonrasri (2014)[6]. This research is experimental research with the purpose of comparing the learning achievement in rock subject and the change of Prathom Suksa 6 students who received the CIPPA Model teaching and learning management and the normal learning management. The results of the study showed that the CIPPA Model teaching and learning management was statistically significantly higher than the normal learning management at the level of 0.05, and Nittaya Sottip's research (2008)[3] which studied the Comparison of academic achievement and scientific process skills that the CIPPA Model teaching and learning management and the normal learning management, the results showed that the Science Achievement of Prathom Suksa 3 Students who has been organized in the higher CIPPA Model teaching and learning management than the normal learning management, which shows that the students help each other to summarize, the knowledge they have acquired in a knowledge, allowing students to remember and understand the content studied can go better.

SUGGESTIONS

Suggestions for utilizing research findings

1. In organizing teaching and learning activities, various activities should be organized.

2. The CIPPA model teaching and learning management should be used in the teaching and learning process and include scientific process skills for better thinking and understanding.

Suggestions for conducting future research.

There should be a study of science teaching and learning based on the CIPPA model by using the questions to find academic achievement in many areas.

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