LEARNING MANAGEMENT BY CONSTRUCTIVIST THEORY WITH ONLINE MEDIA FOR STUDENTS IN GRADE 7 AT DEMONSTRATION SCHOOL OF SUAN SUNANDHA RAJABHAT UNIVERSITY

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ABSTRACT

Classroom action research report Objectives 1) to promote academic achievement using learning constructivist With online media in a new normal situation for students in grade 7 at Demonstration School of Suan Sunandha Rajabhat University 2) To compare the learning achievements of learners from constructivist learning management with online media in a new normal situation. The target group used in the research were high school students, grade 7 room 3 studying design and technology courses. Semester 2 Academic Year 2022 Demonstration School of Suan Sunandha Rajabhat University (Secondary Division), Bangkok, 30 people. Classroom-specific selections to use to promote academic achievement with simultaneous learning. constructivist tools used in research including online media about the engineering design process Design and Technology course for grade 7 students, an achievement test in engineering, design and technology courses. For students in grade 7, quality checks for straightness by the mean and standard deviation method The results showed that Achievement after learning using constructivist With online media for grade 7 students, higher than before The mean scores after and before school were equal to ($\underline{x}$ = 13.46 , S.D. = 1.33) and ($\underline{x}$ = 4.96 , S.D. = 1.77)

Keyword: constructivist , Online Learning

INTRODUCTION

Due to COVID-19 pandemic, the Teaching Methods have been inevitably changed from offline to online. Online learning system has played an important role in teaching management. This cause severe impact to both teachers and learners, especially the reduction of knowledge due to unsuitable learning environment. This research is conducted to develop and support learning achievement. To preserve learning achievement standard, the learning achievement after research is expected to not lower or higher than the situation before COVID-19 pandemic. Constructivist learning theory aims to crate knowledge from former experience to new knowledge generated by student themselves and utilize knowledge and adapt to daily life suitably.

OBJECTIVES

1) To promote academic achievement using learning constructivist with online media in a new normal situation for students in grade 7 at Demonstration School of Suan Sunandha Rajabhat University

2) To compare the learning achievements of learners from constructivist learning anagement with online media in a new normal situation.

HYPOTHESIS

1. academic achievement after using learning constructivist with online media in a new normal situation is not lower than required criteria

2. academic achievement after using learning constructivist with online media in a new normal situation is not lower than required criteria is higher than before.

METHODOLOGY

1. The Sample Group

30 students in Grade 7 Room 3 who enroll studying design and technology courses in semester 2 Academic Year 2022 at Demonstration school of Suan Sunandha Rajabhat University, Bangkok. Classroom-specific selections to use to promote academic achievement with simultaneous learning.

2. The research tools

constructivist tools used in research consisted of

2.1 Online media about the engineering design process Design and Technology course for grade 7 students,

2.2 Achievement test in engineering, design and technology courses

2.3 Lesson plan

The method to create tools and prove quality.

2.1.1 Study Thai Basic Education Core Curriculum 2008 (Adjusted 2017) and the standard in area study of science

2.1.1.1 Proceed for 3 experts to assess the quality of tools

Assessment of Achievement test in engineering, design and technology courses for experts is designed by using Rating Scale. There were 5 level of quality in each item as follow. (Pannee Likitchawat. 2012. : 128). Each level of score can be interpreted to the meaning as follows.

5 means Excellent
4 means Very Good
3 means Good
2 means Fair
1 means Poor

The opinion of experts interpreted on each level of score would be calculated by using mean to assess the quality of the tools. Each interval of score can be interpreted to the meaning as follows.

Average score	4.50 – 5.00	means Excellent
	3.50 – 4.49	means Very Good
	2.50 – 3.49	means Good
	1.50 – 2.49	means Fair
	1.00 – 1.49	means Poor

2.1.2 Analyzing the key indicators in learning area of sciences in Design and Technology course as follow.

Indicator 2: Indicate need in daily life
Indicator 2: Design solution
Indicator 4: Test for assessment and find solution
Indicator 5: Knowledge and skill

After analyzing, create research tools as follows.

2.1.2.1 Creating online media about the engineering design process, Design and Technology course for grade 7 students

2.1.2.2 Writing lesson plan and hand book for teachers to be suggestion for users to know the way to prepare learning management since these are important tool to operate activity in the classroom. The content of these consists of the concept, behavioral objective, detail of lesson, learning activities and evaluation.

2.1.3 Submitting online media and lesson plan to 3 experts for proving content validity

2.1.4 Adjusting online media and lesson plan from 3 experts' advices and calculate content validity

2.1.5 Finding language using issue and the appropriateness of learning activities and adjusting before using in the classroom.

2.1.6 Creating an achievement test in engineering, design and technology courses. There are 20 questions in the test. Each question has 4 choices. Only 1 choice is correct. All questions relate to behavioral objective, cover detail of lesson in Design and Technology course and corresponding to the key indicators. The score for correct answer is 1. The wrong for correct answer is 0.

2.1.7 Submitting an achievement test to 3 experts and finding Index of item objective congruence (IOC) from the score assessed by 3 experts. The experts' duty is prove whether the question is related to learning objectives. The meaning of score used for calculating item objective congruence (IOC) is explained as follows.

+1 means	the experts ensure that the question is related to learning objectives
0 means	the experts do not ensure that the question is related to learning objectives
-1 means	the experts ensure that the question is related to learning objectives Full score of each question is 1.00.

2.1.8 Adjusting an achievement test in engineering, design and technology courses from 3 experts' advices and calculate

2.1.9 Printing an achievement test and choosing materials and tools related to engineering, design and technology courses for data collection.

3. Data Collection

For collecting data, the researcher used Pre-test in engineering, design and technology coursesThere are 20 questions in the test. Each question has 4 choices. Only 1 choice is correct, and taught students by using designed lesson plan. After learning process is finished, using Post-test, the same set questions to measure the result.

4. Data analysis and statistic

The statistic used in this research consists of average ($\underline{x}$) and Standard Deviation Boonchom Srisaad. (2002).

RESULTS

1. Learning Acheievement after Management by constructivist With online media for students in grade 7 at Demonstration School of Suan Sunandha Rajabhat University is in pass level ($\underline{x}$ = 13.46 S.D. 1.33)

2. From post-test, average score is 13.46. Standard Deviation is equal to 1.33. Post-test average score is more than pre-test average score which is 4.96. Standard Deviation is equal to 1.77.

Table 1 Comparative of the learning achievements of learners from constructivist learning management with online media in a new normal situation for Grade 7 students in Demonstration school of Suan Sunandha Rajabhat University

Test	Number of students	Full score	mean ($\underline{x}$)	Standard Deviation (S.D.)
Pre-test	30	20	13.46	1.33
Post-test	30	20	4.96	1.77

CONCLUSION AND DISCUSSIONS

1. From promoting learning management by constructivist with online media for students, in grade 7 room 3 at Demonstration School of Suan Sunandha Rajabhat University, the researcher found that post-test average score is 13.46. Standard Deviation is equal to 1.33. Post-test average score is more than pre-test average score which is 4.96. Standard Deviation is equal to 1.77. The result shows that learning management by constructivist with online media for students, in grade 7 room 3 can promote students' score. This may because the researcher allowed student to choose interest topic and give opportunities by finding the answer in online media invented and developed by the researchers to activate student to find the data they were interested and adapted to the content. The students can use online media to get further information. This corresponds to explanation of Thissana Kaemmanee. (2007). that constructivist learning theory means process of "doing" not "discussing." Apart from inputting the knowledge to learners, processing is required to create new knowledge and activate social development. Knowledge and social skill are created parallelly time. This also corresponds to the explanation of Prapatsara Pimphan. (2010). that preparing readiness of students by reviewing old knowledge and activate learner to think of old experience related to new knowledge can be done by several methods such as simulation e.g. using game, using question to motivate studying new content and be basic for new construction. This also help learners feel fun, the researchers found that the fun of learners is very important, the study method with feel fun can attract attention of learners. (Kittitat Jaradlertwong, 2023)

2. Comparative of the learning achievements of learners from constructivist learning management with online media in a new normal situation for Grade 7 students in Demonstration school of Suan Sunandha Rajabhat University can be concluded that the average score after learning is 13.46. Standard Deviation is 1.33. The post-test average score is higher than the average pre-test score which is 4.96. Standard Deviation is 1.77. The cause may be the activities the researcher used for teaching can stimulate student because the researcher allowed student to choose interest topic and give opportunities by finding the answer in online media invented and developed by the researchers. The media can help student understand clearly. The online media provides convenience for studying since it can be retrieved from all communication tool. Students can study all the times. This corresponds to

the explanation of Patama Noparat. (2005). that e-Learning is learning method using internet or Intranet by student themselves. Students have a chance to study in their interested and ability. Moreover, image and beautifulness of media can attract student. Sounds can also interest learners. In addition, Video and animation are also attractive. The researcher's finding also corresponds to the explanation of Mathuros Mueangsuk. (2006). that Web Page designer should regard objective and expectation of web user for appropriate designing. If target group is students, preciseness and rapidity are required since this is behavior of target group.

SUGGESTION

1. In **learning management by constructivist with online media for students,** The teachers are required to give advice relating to student's interest so that students can adapt the lesson learned to their passion.
2. In **learning management by constructivist with online media for students,** the teachers are required to control study time since online discussion much more time than discussion at the school.

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