

A Study of Acceptance of Teaching and Learning toward Massive Open Online Course (MOOC)

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Abstract - The objective of the study was to study the acceptance of teaching and learning online toward Massive Open Online Course (MOOC). The samples used in the research study were the 75 members of the group named "Thai-MOOC" who interested in the teaching and learning online toward Massive Open Online Course (MOOC). The research study is survey research. The instrument used for data collection was a questionnaire. The appropriateness of the questionnaire was evaluated by five experts. The statistics used for data analysis, were mean (\bar{x}) and standard deviation (S.D.). The results of the research study were as follows. The overall acceptance of teaching and learning toward Massive Open Online Course (MOOC) was at high level ($\bar{x} = 4.37$, S.D. = 0.67). The attitude towards learning method following the MOOC model was the most accepted ($\bar{x} = 4.55$, S.D. = 0.61). There were three issues those were at high level of acceptance: (1) Perceived usefulness of learning method following MOOC model ($\bar{x} = 4.45$, S.D. = 0.59), (2) Perceived ease of use of learning ($\bar{x} = 4.33$, S.D. = 0.68), and (3) Intention behaviors toward learning method following the MOOC model ($\bar{x} = 4.14$, S.D. = 0.85).

Keywords - Massive Open Online Course, MOOC, Teaching and Learning Online, Acceptance of Teaching and Learning

I. INTRODUCTION

Currently, technology allows educational institutions to accelerate the development of teaching and learning online in order to increasingly mediate the enhancement of teaching. Those interested could learn a course on self-interest which aims to develop skills for lifelong learning. The current study focuses on with regard to learners' skills, practical skills and computer and information technology skills. Teachers need to teach or conduct research as part of the teaching and learning process in order to keep pace with technology, and to provide maximum benefits for adoption by professionals. Modern tools and methods can be beneficial to teaching and learning. In terms of the adoption of innovations or tools that are used in teaching, it is important that those involved have the necessary knowledge to benefit the related curriculum.

Massive Open Online Course (MOOC) is a form of online course which is free and can be accessed by many learners. MOOCs feature the use of modern technology and the Internet in teaching. They can create a stimulating environment that is conducive to learning

anywhere, anytime. MOOC is a new innovation in educational circles. It involves a technology that combines online learning with new methods of teaching. MOOC can be published to the entire world and can be accessed through online channels. The connections are endless and there is no set age of the student, no limit to the number of participants, the students participate in classes, can make comments and answer questions while the teachers are preparing to teach or lecture, can work together in small groups. All of this maintains the interest of the learners throughout the lecture, because of the variety in terms of the form of the classes and the students. In terms of disseminating the knowledge of the instructors, delivery is designed to be versatile and consistent with the class and the number of classes [1, 2].

Researchers are therefore interested in studying the acceptance of teaching and learning online in terms of Massive Open Online Courses (MOOC). The results would be useful for the development, promotion and support of learning methods using the MOOC model and in making them more effective and widespread.

II. OBJECTIVE OF THE STUDY

The objective of the study was to study the acceptance of teaching and learning online toward Massive Open Online Course (MOOC).

III. THEORY AND PRINCIPLES

A. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a theory that is widely accepted. It acts as a measure of success of the use of technology developed by Davis [3]. It was a further refinement of the TRA theory. The principle of TAM was that it explains the factors that influence the behavioral intention of using technology. The theory can be divided into four main factors:

- External Variables
- Perceived Usefulness (PU)

- Perceived Ease of Use (PEOU)
- Attitude toward Using

Attitudes toward using technology are influenced by the perceived benefits of the technology, and the perception that the system is easy to use. At the same time, the willingness to show active behavior is influenced by attitudes towards its use and a recognition of the benefits of the technology. This results in the adoption of the technology in practical terms.

B. Massive Open Online Course (MOOC)

Laisakul (2014) [4] defined an Massive Open Online Course (MOOC) as a style of online learning course that is free and available through the Web, with regard to which there are many learners. It involves a forum for students to talk to each other, interactive classes, and there is homework. Students can consult with peers, professors and teaching assistants. The linchpin of MOOC is its accessibility, interactive element and freedom.

Kerdvibulvech (2013) [5] referred to the interest of MOOC in that the creation of such a system encourages teachers and students in that they can communicate and interact with each other more. MOOC involves a computer system that allows teachers to maintain student interest and ensure retention. There is more interaction between instructors and students than in traditional courses, even though they are far apart.

In summary, in terms of the ability of the MOOC, it supports students and other learners a great deal. Without affecting the computer server. It also provides online interaction as part of the teaching and learning process. MOOC is Open Course which means that students can study for free. It also supports a student-centered teaching and learning approach. Students have the right to choose the subjects they want to learn and to retain as much as they want.

IV. RESEARCH METHODOLOGY

A. Population and Sample

The population used in the research study were the 189 members of the online group entitled “Thai-MOOC” who were interested in the teaching and learning online in terms of a Massive Open Online Course (MOOC). Of these, 75 made up the sample that was used in this research. The survey was carried out between December 2557 and October 2558.

B. The Data Collection Instrument

The instrument used for data collection was a questionnaire. The questionnaires used in the research study consisted of 29 questions which were divided into two parts: Part 1 related to the participants' background, and Part 2 explored the participants' acceptance of the Thai-MOOC. The questionnaire used a five level rating scale, ranging from the highest acceptance level to the lowest acceptance level in terms of the acceptance of teaching and learning online with regard to the Thai-MOOC. The part dealing with acceptance was divided into four areas: (1) perceived ease of learning, (2) perceived usefulness of the learning method following the MOOC model, (3) attitude towards the learning method following the MOOC model, and (4) intention behaviors toward the learning method following the MOOC model.

C. Data Collection

The researcher developed a questionnaire to assess the degree of acceptance of the teaching and learning online approach related to the Thai-MOOC. The following steps were followed:

1. study and documentary analysis of theories related to the adoption of technology (Technology Acceptance Model: TAM) [3],

2. creation of a draft questionnaire based on the results of step (1),

3. five experts were asked to assess the consistency of the questionnaire and its content validity, and to check the format of the questionnaire,

4. update and revision of the questionnaire following the recommendations of the experts,

5. creation of question items using Google Form,

6. questionnaires sent to a sample of respondents via the inboxes of the Thai-MOOC group,

7. data analysis and evaluation of the returned questionnaires and

8. summarization of the results.

V. RESULTS OF THE STUDY

In terms of the results of the study is that the overall acceptance of teaching and learning with regard to Thai-MOOC was high ($\bar{x} = 4.37$, S.D. = 0.67). When we consider the average score for each side it was found that:

In terms of acceptance, the attitude towards the learning method adopted by the MOOC model was that it was highest acceptable ($\bar{x} = 4.55$, S.D. = 0.61). The phrase that was accepted by most was that the MOOC approach is useful to learning ($\bar{x} = 4.76$, S.D. = 0.43). Next is the availability of English language learners is important for learning method following MOOC model ($\bar{x} = 4.63$, S.D. = 0.63). The second is the perceived usefulness of the learning method followed by the MOOC model ($\bar{x} = 4.45$, S.D. = 0.59). The most commonly accepted phrase was that MOOC can expand educational opportunities to those who are far away ($\bar{x} = 4.63$, S.D. = 0.61). Next is the perceived ease of use of learning, with acceptance at a high level ($\bar{x} = 4.33$, S.D. = 0.68). MOOC being a new style of learning that makes it interesting is also highly accepted ($\bar{x} = 4.53$, S.D. = 0.60). Finally, the intention in terms of behavior with regard to the learning method adopted by the MOOC model is highly accepted ($\bar{x} = 4.14$, S.D. = 0.85). In this field, the respondents highly agreed with encouraging the use of the MOOC model in higher education in Thailand

($\bar{x} = 4.44$, S.D. = 0.64). The intention to study using the MOOC format as a means of integration with the instruction to achieve maximum efficiency was highly accepted ($\bar{x} = 4.35$, S.D. = 0.80). The adoption was minimal is to which the respondents have the intention to create their own courses or courses through the MOOC model ($\bar{x} = 3.64$, S.D. = 1.41) as shown in Table I.

**TABLE I
RESULTS WITH REGARD TO THE ACCEPTANCE
OF ONLINE TEACHING AND LEARNING IN TERMS OF THE MOOC.**

Descriptions	\bar{x}	S.D.	Level
1. Perceived ease of learning	4.33	0.68	High level
1.1 MOOC is online learning.	4.52	0.58	Highest level
1.2 Knowing how to learn using MOOC.	4.09	0.76	High level
1.3 MOOC is a new style of learning that is interesting.	4.53	0.60	Highest level
1.4 MOOC offers unlimited right to learn.	4.31	0.68	High level
1.5 MOOC is an open course and is free.	4.27	0.79	High level
1.6 MOOC supports student-centered learning.	4.41	0.66	High level
1.7 MOOC makes learning new technology easy.	4.37	0.65	High level
1.8 Overall, MOOC makes learning easy.	4.11	0.73	High level
2. Perceived usefulness of learning method following the MOOC model	4.45	0.59	High level
2.1 MOOC is system which was built to accommodate many open courses.	4.41	0.57	High level
2.2 MOOC can accommodate a large number of students simultaneously.	4.52	0.55	Highest level
2.3 MOOC encourages teachers and students to communicate and engage in two-way interaction.	4.27	0.70	High level
2.4 MOOC can help data store of students more easily.	4.36	0.58	High level
2.5 MOOC is appropriate for teaching and learning in the 21st Century, in terms of the use of technology, media and communications.	4.57	0.50	Highest level
2.6 MOOC can expanding educational opportunities to those who are far away.	4.63	0.61	Highest level
2.7 MOOC displays well on communication devices such as notebook, computers, smart phones, tablets.	4.35	0.60	High level
2.8 MOOC can solve the limitations of e-learning and teaching others over a distance.	4.35	0.67	High level
2.9 MOOC can enhance learning.	4.60	0.52	Highest level
3. The attitude towards learning methods following the MOOC model	4.55	0.61	Highest level
3.1 The attitude that makes use of modern technology.	4.52	0.64	Highest level
3.2 The MOOC approach is needed in the education system today.	4.37	0.73	High level
3.3 MOOC gives everyone an equal educational opportunity.	4.47	0.62	High level
3.4 MOOC is useful to learning	4.76	0.43	Highest level
3.5 MOOC is an appropriate channel for increased learning.	4.57	0.57	Highest level
3.6 The availability of English language on the part of learners is important for the MOOC learning model.	4.63	0.63	Highest level
4. Intention with regard to behavior in terms of the learning methods following the MOOC model	4.14	0.85	High level
4.1 You are more interested in studying using the MOOC learning method.	4.33	0.62	High level
4.2 You intend to study using the MOOC learning method.	4.16	0.74	High level
4.3 Have you ever enrolled for a MOOC?	3.92	0.90	High level

4.4 You have the intention to create your own course or courses based on the MOOC model.	3.64	1.41	High level
4.5 You agree that we should encourage the role MOOC in higher education in Thailand.	4.44	0.64	High level
4.6 You intend to study using the MOOC format to integrate with the instructions to achieve maximum efficiency.	4.35	0.80	High level
Overall	4.37	0.67	High level

VI. CONCLUSIONS AND DISCUSSION

The study into the acceptance of online teaching and learning as part of the Thai-MOOC found that: there was a high level of overall acceptance of teaching and learning with regard to the Thai-MOOC. The highest level of acceptance was that the MOOC approach to learning was useful, and the MOOC approach could expand educational opportunities to those who were far from any educational institutions. The results showed that the respondents were interested in teaching and learning online, and recognize the importance of the benefits of this approach to teaching. In addition, the respondents recognize that it leads to an expansion of educational opportunities. There were also a positive attitude towards teaching and learning online with regard to Thai-MOOC. This was consistent with the research of Chatmaneerungcharien (2011) [6] into the acceptance of e-learning on the part of teachers and undergraduate students at the KamphaengSaen campus of Kasetsart University. The results show that teachers agree that the use of e-learning improves student learning. It is modern and has more benefits than the traditional approach. However, some may never have the opportunity to learn using the MOOC model or have the intention to create their own course or courses through the MOOC approach. Therefore, we should encourage or support new ways of teaching and learning, including the development of ideas and methods for variety in teaching to further benefit the learner.

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(Arranged in the order of citation in the same fashion as the case of Footnotes.)

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