

# Learners' Acceptance of Flipped Learning Using Social Media

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**Abstract** - At the present, social media is widely used not only for communication but also useful in education. Therefore, flipped learning using social media allows learners to study at home before doing activities together in the classroom. The research design is the experimental research. The instrument used in the study is a questionnaire. The sample group is the doctoral degree students of program of Information and Communication Technology for Education, Faculty of Technical Education, King Mongkut's University of Technology North Bangkok. The samples take the course of Instructional Design and Development of Information and Communication Technology for Education in the first semester of academic year 2007 to the first semester of academic year 2015. The findings of the study are as follows. Most respondents have one course experienced with flipped classroom learning. The overall learners' acceptance of flipped learning using social media is at a high level. The learners who use the flipped learning have positive attitude toward the learning.

**Keywords** - Flipped Learning, Flipped Classroom, Learners' Acceptance, Social Media

## I. INTRODUCTION

1. to study the acceptance of the learners using flipped learning through social media.
2. to investigate the attitude of the students toward the flipped learning.

## II. RESEARCH METHODOLOGY

The study is an Experimental Research. The proposed study is conducted as follows. The population are 67 doctoral degree students of the Information and Communication Technology for Education Division, Faculty of Technical Education, King Mongkut's University of Technology North Bangkok.

The research instrument is the questionnaire, which divided into three parts: Part 1 is closed-ended questions for learners' background, Part 2 is closed-ended questions for learners' acceptance toward flipped learning, and Part 3 is open-ended questions for the attitude of a user toward a system used. The designed questionnaire, then distributed to five experts for consistency assessment of the questionnaire (Index of Consistency: IOC). The assessment from three respondent experts was 0.91. After the editing of the questionnaire as mentioned by experts, then distribute to the sample groups. The data are collected from the simple random sampling group. The sample group are the doctoral degree students of Information and Communication Technology for Education Division, Faculty of Technical

Education, King Mongkut's University of Technology North Bangkok, who took the course 020017201 Design and Development of Information and Communication Technology for Education during semester 1 of the academic year 2007 to semester 1 of the academic year 2015. Totally eight classes of students, 63 respondents who experienced in studies using the flipped classroom. The analysis of data using statistical application including the arithmetic mean and standard deviation is used.

The scales for part 2 were classified into five levels, which are summarized the score in the form of interval scales [1, 2] as follows:

Excellent	5	points
Very good	4	points
Good	3	points
Fair	2	points
Poor	1	points

Then we calculated the average of the score and compute the significant level of user satisfaction.

$$(a) \text{ Range} = \text{Maximum point} - \text{Minimum point} \quad (1)$$

$$= 5 - 1$$

$$= 4$$

$$(b) \text{ Class interval} = \text{Range} / \text{number of intervals} \quad (2)$$

$$= 4 / 5$$

$$= 0.8$$

The average points as follows:

4.21 – 5.00 mean the users have an excellent level of satisfaction with the system.

3.41 – 4.20 mean the users have a very good level of satisfaction with the system.

2.61 – 3.40 mean the users have a good level of satisfaction with the system.

1.81 – 2.60 mean the users have a fair level of satisfaction with the system.

1.00 – 1.80 mean the users have a poor level of satisfaction with the system.

Rating scale provides an effective method for measuring the user satisfaction, which are classified into five levels from highest (5) to lowest (1). For example, 5 mean that the user has the highest satisfaction with the system.

### III. RESULTS

Most of learners are male, say 57.9%, when the rest 42.1% are female. Most of them take normal batch, say 58.1%, the rest 41.9% are special batch. Most of them take one flipped learning course, say 76.5%, follow by two courses for 15.7%, and 7.9% take more than 2 courses, as shown in table I.

TABLE I  
LEARNERS' DEMOGRAPHIC DATA

Sex		Batch		Course(s) Attend		
M	F	Full-time	Part-time	1	2	>2
57.9%	42.1%	58.1%	41.9%	76.4%	15.7%	7.9%

TABLE II  
LEARNERS' ACCEPTANCE  
OF ACADEMIC YEAR OF 2007-2015

Descriptions	$\bar{X}$	S.D.
<b>1. Perceive Ease of Use</b>	4.02	0.68
1.1 Getting start using social media is easy, just sign up on the website.	4.55	0.65
1.2 It is easy to learn and have skill for using social media.	4.32	0.73
1.3 Discussion by posting with a reference sources, is easy for collaborative learning.	4.15	0.81
1.4 Use of social media to connect with friends is simple and fast.	4.66	0.52
1.5 To propose a common interest is appropriate for their study.	4.53	0.58
1.6 Learning at home then do homework at school, according to the principle of flipped learning help them to understand the contents easily.	4.15	0.59
<b>2. Perceive Usefulness</b>	4.09	0.80
2.1 Learning by flipped learning provides Interaction, not only between the learners, but also between learner(s) and the instructor.	4.23	0.67
2.2 Learners can review the contents of the post later on.	4.67	0.61

Descriptions	$\bar{X}$	S.D.
2.3 Social media has time and date stamp. When feeding a new post, it will alert to the user(s) immediately.	4.57	0.54
2.4 Collaborative Learning through social media enable access to knowledge from various sources.	4.66	0.52
2.5 Studying at home before discussion in the classroom, may enhance the learning effectiveness.	4.47	0.62
2.6 Collaborative learning through social media in a multimedia form is easy to study the contents.	4.40	0.68
2.7 Learning through social media can support text in various formats including-Microsoft word and pdf files.	4.43	0.77
2.8 Learning and collaborating activities through social media can support learning in the classroom.	4.36	0.67
2.9 Social media is promptly used for collaborating activities and enable to respond immediately as the real time.	4.38	0.64
<b>3. Behavior Intention</b>	4.17	0.70
3.1 Intend to study with "Flipped Learning" continuously in this course.	4.02	0.67
3.2 Intend to be a heavy user of "Flipped Learning".	4.09	0.80
3.3 Intend to study with "Flipped Learning" in other courses.	4.17	0.70
<b>Overall</b>	<b>4.39</b>	<b>0.41</b>

Table II shows that, the students' acceptance toward learning using the flipped learning in overall is at a high level ( $\bar{x} = 4.39$ ,  $SD = 0.41$ ). The perceived ease of use is at a high level ( $\bar{x} = 4.02$ ,  $SD = 0.68$ ), the largest score is "Use of social media to connect with friends is simple and fast" at the highest level ( $\bar{x} = 4.66$ ,  $SD = 0.52$ ), and the smallest score is "Learning at home then do homework at school, according to the principle of flipped learning, helps them understand the contents easily" at a high level ( $\bar{x} = 4.15$ ,  $SD = 0.59$ ). The study also indicates that the students signing up and learning how to use the flipped learning is easy, convenience, and

understandable. The perceived usefulness are at high level ( $\bar{x} = 4.09$ ,  $SD = 0.80$ ). The highest scored of "Collaborative learning through social media enable access to knowledge from various sources" is at the highest level ( $\bar{x} = 4.66$ ,  $SD = 0.52$ ), and the lowest scored of "Learning by flipped learning provides interaction, not only between the learners, but also between learner(s) and the instructor" is at a high level ( $\bar{x} = 4.23$ ,  $SD = 0.67$ ). The result also indicates that the students agree that the flipped learning can enhance learning with resources in various formats and provided interaction and notification. The willingness to use is at a high level ( $\bar{x} = 4.17$ ,  $SD = 0.70$ ). The highest score of "I intended to be a heavy user of Flipped Learning" is at a high level ( $\bar{x} = 4.12$ ,  $SD = 0.70$ ), and the lowest score of "I intended to study with Flipped learning" is at a high level ( $\bar{x} = 4.02$ ,  $SD = 0.67$ ). The study indicated that the students do not only accept the learning using flipped learning for this course but also are interested to use for other courses as well.

The learners who experienced in the flipped learning have positive attitude with the learning system. They comment that flipped learning enable them to have more time to do activities in the classroom. They prefer instructor to provide them some effective learning media, and study guide before self-study. Furthermore, learning on their own and collaboration with friends by online system take more time than in the classroom. Therefore, any courses with the flipped learning method may have the problems of spending more time for the study. Educators should conduct flipped learning with other courses and also consider the appropriate number of courses and contents.

#### IV. CONCLUSIONS

The learners who use the flipped learning have positive attitude with the learning. They comment that, learning by the flipped learning enable them to have more time to do activities in the classroom. They prefer educators to provide them some effective learning media,

and study guide before self-study. Furthermore, educators should conduct flipped learning with other courses and also consider the appropriate number of courses and contents. The problem may arise by the Internet speed. Pros and cons, including privacy and ethics of social media usage, should be concerned.

## **V. ACKNOWLEDGMENT**

I would like to express my heartfelt thanks to Rajamangala University of Technology Suvarnabhumi and King Mongkut's University of Technology North Bangkok for their support. Finally, yet importantly, I would like to thank my beloved parents for their blessings and spiritual support.

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

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