EFL LEARNERS’ PERCEPTIONS OF USING LMS

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ABSTRACT
The purpose of this study is to present the views, attitudes, and perspectives of undergraduate students using Learning Management System (LMS) along with traditional face-to-face learning. It attempts to understand the factors that influence the adoption of LMS based on users' own experience. The samples were 198 undergraduate students enrolled in Fundamental English course at Bangkok University. The instrument in this study was a questionnaire. The results of the study show that the levels of attitudes toward using the Internet as a learning tool and perceptions of using LMS in general were moderate. There were no statistically significant differences at .05 level found in students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS as classified by gender, computer ownership, and monthly allowance. As hypothesised, there was a positive relationship between students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS at .01 level. Students with high attitudes toward using the Internet as a learning tool expressed more positive perceptions of using LMS than those with low attitudes.

KEYWORDS: LMS, e-learning, attitude, perception, EFL students

INTRODUCTION AND THEORETICAL FRAMEWORK
LMS or Learning Management System is a software application or web-based technology which has become a powerful tool for conducting an e-learning environment. The software application provides a delivery infrastructure that enables e-learning to be effective. It can be used to manage curriculum, training materials, and evaluation tools. It can also be extended with modules for tracking learning activities and results such as assignments, quizzes, grading. LMS is showing its potential as a very viable tool in learning inside and outside a classroom. It can either create online courses or support face-to-face teaching and learning in an engaging manner. Typical LMS features include the following (The eLeaP LMS system, 2013).
- create courses
- group courses by category
- set course deadlines, reminder emails, feedback form, white board forum
- set course availability options
- set automatic re-assignment options (great for annual trainings)
- set course-not-completed notification email
- upload attachment files
- upload SCORM files
- upload/embed video files
- upload/embed flash files
- embed external content
- preview/print course
- collaborate with others on course creation
- create and deploy certificates based on rules
- create and deploy quizzes - multiple question formats and retry options
- customize certificates with image background files using custom certificate builder
- advanced course settings to set minimum read time and also pre-set navigation or progressive access
- create course glossary, frequently asked questions and feedback forms
- course duplicator
- course assignment to users and user groups

LMS for learning purposes is growing. It is constantly used in a variety of ways such as commercial products (e.g. WebCT, Blackboard), free open source products (e.g. moodle, claroline), customized software systems that serve the instructional purposes of particular organizations (Kalinga, Burchard & Trojer, 2008). TLTTeam (2011) points out that a learning management system has five advantages for educational institutes.
1. Centralized learning
   All types of content are available to individuals 24/7 from any location with web access. Multiple users can access the LMS at any given point in time.
2. Tracking and reporting for enhanced performance
   The LMS allows organizational users to view a required learning path, track progress against the
   learning path, review records of success, and register for additional courses.

3. Immediate capabilities evaluation
   The LMS allows users to be evaluated prior to taking a course, while participating in the course, and
   upon course completion. Students can review their performance based on the tests and quizzes
   conducted by the professors.

4. Easy upgradation of content, product information to maintain the flow of E-learning
   The LMS provides a central point for organizations to change product descriptions, specifications,
   requirements, forms, and to allow easy uploading of new product or service information. In institutions,
   professors can keep upgrading new content on the LMS, for students to read, understand and proceed
   while learning.

5. LMS – simplifying learning processes
   LMS is easy to use and is instructed very well, a new user is able to use it easily. LMS accommodates
   various features- documentation and administration, recording and tracking events and programs,
   classroom learning, to name a few.

There are various aspects to be considered when adopting LMS to introduce e-learning in a traditional course.
According to Nanaykkara (2007), e-learning adoption may be framed around three key factors: individual,
system, and organization; each key factor subsumes other intertwined sub-factors. Sun, Tsai, Finger, Chen, and
Yeh (2008) used six dimensions to assess the adoption’s factors, including student dimension, instructor
dimension, course dimension, technology dimension, design dimension, and environment dimension.

Nasser, Cherif, and Romanowski (2011) explored the factors that impact student use of the LMS K-Net in Qatari
independent schools. The samples were 1,376 students in 37 schools. The instrument in this study was a
questionnaire. Semi-structured interviews were used to collect qualitative data that helped to confirm the results
of the quantitative data and to provide additional insight on students’ perspectives regarding the use of the LMS.
The results point to a strong relation between ICT knowledge and LMS usage. They suggest that the more ICT
knowledge students have, the less prone they are to using the LMS.

Hirata and Hirata (2012) examined Japanese undergraduate students’ perceptions of using LMS in different
educational settings and found out the benefits and drawbacks of LMS for students’ language studies. The results
suggested that the students’ perceived benefits and drawbacks with LMS are different depending on individual
students’ ideas of and attitudes towards education.

In Bangkok University, we use LMS to support face-to-face English courses. We can easily administer, track,
search for and add content to our courses. The advantage of having an LMS system is that it gives teachers the
ability to process knowledge easier and better. Nevertheless, the knowledge on how students think about using
LMS as a learning tool is not very much known. Although students may have contact with the Internet and
computers, it doesn’t mean that they are really aware of the impact of LMS used to improving their learning
performance. Therefore, understanding of users’ perceptions of LMS will increase assurance towards its
utilization.

PURPOSES OF THE STUDY
- To study students’ attitudes toward using the Internet as a learning tool and their perceptions of
  using LMS.
- To compare students’ attitudes toward using the Internet as a learning tool and their perceptions of
  using LMS with their background.
- To investigate the relationship between students’ attitudes toward using the Internet as a learning
  tool and perceptions of using LMS.

RESEARCH METHODOLOGY
Population and Samples
The participants included in this study were undergraduate students enrolled in Fundamental English course at
Bangkok University. These students have studied English as a foreign language. The samples were selected by the
use of stratified random sampling technique. As a result, 198 students were participated in the data collection.

Research Instrument
In order to identify students’ attitudes toward using the Internet as a learning tool and their perceptions of using
LMS, a questionnaire was used to collect the data. The first part gathered personal information from the
respondents who were asked to answer the questions on gender, computer ownership, monthly allowance. The second part was a survey of students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS. The questionnaire was prepared for rating in a form of five-rating scale.

Data Analysis
The acceptable statistical significance level was set at alpha (α) < .05. After the receipt of the completed questionnaires, the data were statistically analyzed by using SPSS/Window 12 through the following steps:

- The data of personal information were brought to calculate for average means.
- The data of students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS were brought to calculate for average means and standard deviation.
- The means of students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS were divided into three levels and interpreted in the form of range based on the criterion of \( \bar{X} \pm .5SD \).

- The average mean of attitude toward using the Internet as a learning tool was 4.32 and standard deviation was .62.
  \[
  4.32 \pm (.5)(.62) \rightarrow 4.32 \pm 0.31
  \]

<table>
<thead>
<tr>
<th>Computer Aptitude</th>
<th>Mean Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>4.64 – 5.00</td>
</tr>
<tr>
<td>moderate</td>
<td>4.01 – 4.63</td>
</tr>
<tr>
<td>low</td>
<td>1.00 – 4.00</td>
</tr>
</tbody>
</table>

- The average mean of perception of using LMS was 3.66 and standard deviation was .54.
  \[
  3.66 \pm (.5)(.54) \rightarrow 3.66 \pm 0.27
  \]

<table>
<thead>
<tr>
<th>Attitude toward WebEx</th>
<th>Mean Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>3.94 – 5.00</td>
</tr>
<tr>
<td>moderate</td>
<td>3.39 – 3.93</td>
</tr>
<tr>
<td>low</td>
<td>1.00 – 3.38</td>
</tr>
</tbody>
</table>

- The independent-samples t-test was used to test the mean scores of two groups of subjects concerning students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS.
- The One-Way Analysis of Variance (ANOVA) test was used to compare mean scores of three and more groups concerning students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS.
- The Pearson product-moment correlation coefficient test was used to investigate the relationship between students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS.

RESULTS
1. Results of Fundamental Analysis
1.1 Level of attitudes toward using the Internet as a learning tool
The study revealed that the level of students’ attitude toward using the Internet as a learning tool in general was moderate (\( \bar{X} = 4.32 \)). Among four items of attitudes toward using the Internet as a learning tool, the third highest means of attitudes were items no. 3, 4, and 1 respectively (\( \bar{X} = 4.39, 4.37, 4.31 \)). The lowest mean was item no. 2 (\( \bar{X} = 4.21 \)). The results were presented in Table 1.

<table>
<thead>
<tr>
<th>Attitudes toward using the Internet as a learning tool</th>
<th>X</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The use of the Internet makes learning English more convenient.</td>
<td>4.31</td>
<td>.72</td>
<td>moderate</td>
</tr>
<tr>
<td>2. Using the Internet as a learning tool is acceptable now.</td>
<td>4.21</td>
<td>.83</td>
<td>moderate</td>
</tr>
<tr>
<td>3. The use of the Internet helps learners get information and news from around the world.</td>
<td>4.39</td>
<td>.79</td>
<td>moderate</td>
</tr>
<tr>
<td>4. The use of the Internet makes communication more accessible and convenient</td>
<td>4.37</td>
<td>.81</td>
<td>moderate</td>
</tr>
</tbody>
</table>
5. Using the Internet as a tool for communication is better than using former methods like sending letters, faxing and making calls. 4.30 .87 moderate

| Total | 4.32 .62 moderate |

1.2 Level of perceptions of using LMS

The study revealed that the level of students’ perception of using LMS in general was moderate ( $\bar{X} = 3.66$). Among twelve items of perceptions of using LMS, the third highest means of opinions were items no. 8, 7 and 6 respectively ( $\bar{X} = 4.21, 3.91, 3.90$). These items were at a high level. The two lowest means which were items no. 11 and 3 ( $\bar{X} = 3.17, 3.22$) were at a low level. The results were presented in Table 2.

<table>
<thead>
<tr>
<th>Perceptions of Using LMS</th>
<th>$\bar{X}$</th>
<th>S.D.</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LMS requires teachers and students to be more proficient in information technology (IT).</td>
<td>3.88</td>
<td>.80</td>
<td>moderate</td>
</tr>
<tr>
<td>2. I am interested in using LMS for an online English class.</td>
<td>3.53</td>
<td>.90</td>
<td>moderate</td>
</tr>
<tr>
<td>3. Learning English through LMS is more difficult than learning in a traditional class.</td>
<td>3.22</td>
<td>1.03</td>
<td>low</td>
</tr>
<tr>
<td>4. Learning through LMS is acceptable now.</td>
<td>3.50</td>
<td>.83</td>
<td>moderate</td>
</tr>
<tr>
<td>5. LMS is becoming more popular in Thailand.</td>
<td>3.39</td>
<td>.88</td>
<td>moderate</td>
</tr>
<tr>
<td>6. Learning through LMS makes you realize that you can learn from anywhere in the world.</td>
<td>3.90</td>
<td>1.04</td>
<td>moderate</td>
</tr>
<tr>
<td>7. LMS makes it easier for teachers and students to make communication.</td>
<td>3.91</td>
<td>.90</td>
<td>moderate</td>
</tr>
<tr>
<td>8. LMS makes it convenient for you to download and upload your classwork and homework files.</td>
<td>4.21</td>
<td>.84</td>
<td>high</td>
</tr>
<tr>
<td>9. You don’t need to go to the library because LMS helps you find the information you want.</td>
<td>3.86</td>
<td>.84</td>
<td>moderate</td>
</tr>
<tr>
<td>10. LMS is useful for learning English.</td>
<td>3.67</td>
<td>.81</td>
<td>moderate</td>
</tr>
<tr>
<td>11. Learning English through LMS is more useful than learning in a traditional class.</td>
<td>3.17</td>
<td>.97</td>
<td>low</td>
</tr>
<tr>
<td>Total</td>
<td>3.66</td>
<td>.54</td>
<td>moderate</td>
</tr>
</tbody>
</table>

2. Results of Hypothesis Testing

2.1 Hypothesis 1 compared students’ attitudes toward using the Internet as a learning tool with different background

Hypothesis 1 was not accepted because none of the variables related to students’ background affected their attitude toward using the Internet as a learning tool. There were no statistically significant differences at .05 level found in students’ attitude toward using the Internet as a learning tool as classified by gender, computer ownership, and monthly allowance.

The overall mean score of female students’ attitude toward using the Internet as a learning tool ( $\bar{X} = 4.40$) was higher than that of male students ( $\bar{X} = 4.21$). Both groups had students’ attitude toward using the Internet as a learning tool at a moderate level. Due to the results obtained from the application of the t-test, it was found that there was no statistically significant difference found in students’ overall attitude toward using the Internet as a learning tool between two groups (male and female) at level of .05. This means that male and female students were not different in having attitude toward using the Internet as a learning tool.

The overall mean score of attitude toward using the Internet as a learning tool among students who owned a computer was higher than that of students who didn’t own a computer ( $\bar{X} = 4.33, 4.16$). Both groups had attitude toward using the Internet as a learning tool at a moderate level. The t-test was employed to examine the significant difference between students who owned a computer and those who didn’t own a computer on their attitude toward using the Internet as a learning tool. It was found that there was no statistically significant difference found in students’ attitude toward using the Internet as a learning tool between two groups at level of .05. This means students who owned a computer and those who didn’t own a computer were not different in having attitude toward using the Internet as a learning tool.
The results obtained from applying the ANOVA revealed that no difference in overall attitude toward using the Internet as a learning tool among three groups of monthly allowance (less than 3,500 baht; 3,501-5,000 baht; and more than 5,000 baht) was found statistically significant at .05 level. This means that allowance received from parents per month had no impact on students’ attitude toward using the Internet as a learning tool.

2.2 Hypothesis 2 compared students’ perception of using LMS with different background
Hypothesis 2 was not accepted because none of the variables related to students’ background affected their perception of using LMS. There were no statistically significant differences at .05 level found in students’ perception of using LMS as classified by gender, computer ownership, monthly allowance.

The overall mean score of female students’ perception of using LMS ($\bar{X} = 3.67$) was higher than that of male students ($\bar{X} = 3.65$). Both groups had students’ perception of using LMS at a moderate level. Due to the results obtained from the application of the t-test, it was found that there was no statistically significant difference found in students’ overall perception of using LMS between two groups (male and female) at level of .05. This means that male and female students were not different in having students’ perception of using LMS.

The overall mean score of perception of using LMS among students who didn’t own a computer was higher than that of students who owned a computer ($\bar{X} = 3.71, 3.66$). Both groups had students’ perception of using LMS at a moderate level. The t-test was employed to examine the significant difference between students who owned a computer and those who didn’t own a computer on their perception of using LMS. It was found that there was no statistically significant difference found in students’ perception of using LMS between two groups at level of .05. This means students who owned a computer and those who didn’t own a computer were not different in having students’ perception of using LMS.

The results obtained from applying the ANOVA revealed that no difference in overall perception of using LMS among three groups of monthly allowance (less than 3,500 baht; 3,501-5,000 baht; and more than 5,000 baht) was found statistically significant at .05 level. This means that allowance received from parents per month had no impact on students’ perception of using LMS.

2.3 Hypothesis 3 investigated the relationship between students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS
The Pearson product-moment correlation coefficient test was used to find out whether there was a statistically significant relationship between attitudes toward using the Internet as a learning tool and their perceptions of using LMS. This hypothesis was accepted. Table 3 shows that there was a positive relationship between students’ attitudes toward using the Internet as a learning tool and their perceptions of using LMS at .01 level. In other words, students with high attitudes toward using the Internet as a learning tool expressed more positive students’ perceptions of using LMS than those with low attitudes.

Table 3: Correlate Results for the Respondents’ Attitudes toward Using the Internet as a Learning Tool and Their Perceptions of Using LMS

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>Attitudes toward using the Internet as a learning tool</th>
<th>Perceptions of Using LMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes toward using the Internet as a learning tool</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Perceptions of Using LMS</td>
<td>0.42**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

** P < .01

DISCUSSION AND CONCLUSIONS
The results of the research have shown the attitudes and perceptions of Bangkok University students toward using Learning Management System (LMS) along with traditional face-to-face learning. This study provides teachers and institutions with useful information when developing distance learning with LMS.

According to Tables 1 and 2, the students agree that the Internet is useful for receiving news and communicating with people. They seem to understand that the Internet can make English learning more convenient, but they do not totally agree that it has been accepted as a learning tool. They also think that LMS is a useful device that can support their English learning in many ways, but they still resist that traditional face-to-face instruction is more useful. In addition, the results of hypotheses 1 and 2 indicate that gender, computer ownership, and monthly allowance do not affect students’ attitudes toward using the Internet and their perceptions of using LMS. Thus, it
is important for institutions that will adopt e-learning to study about other factors that may have the influence on students’ perceptions of LMS such as teacher performance, teaching material and technology readiness.

Hypothesis 3 shows that students with high attitudes toward using the Internet as a learning tool express more positive students’ perceptions of using LMS than those with low attitudes. However, the levels of attitudes toward using the Internet as a learning tool and their perceptions of using LMS in general are moderate. This can be assumed that the students do not like to use the Internet and LMS to support their English learning as much as we had expected. Therefore, teachers should encourage students to figure out the advantages of using the Internet as a learning tool. Both teachers and students should make the most of LMS applications.

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REFERENCES