

# The Perception of Electronic Learning System Among Students in the College Poly-Tech Mara Batu Pahat

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**Abstract:** *The Electronic Learning System (OLES) is seen as a main medium in the development of 21st century education. Students need to be fully involved in their learning process to produce excellent and effective quality of learning that is transformed through the implementation of electronic learning systems (OLES). Therefore, this study was conducted to identify the perception of students in College Poly-Tech MARA Batu Pahat on the level of student readiness in terms of knowledge, usage and motivation in electronic learning system. The design of the research selected study is a survey research which uses quantitative approach and using questionnaire as a research instrument. The respondents in this study were 258 students from College Poly-Tech MARA Batu Pahat comprises of various fields. The study found that the level of student knowledge of the electronic learning system was moderate to a mean score of 2.73. While the level of student use of the electronic learning system is moderate, the mean score is 2.17. The level of student motivation towards the use of the electronic learning system is also at a moderate level with a mean score of 2.97. Correlation analysis also shows that there is a significant positive relationship between knowledge, use and motivation towards the use of electronic learning systems. Some improvements must be made to preserve the use of electronic learning systems to ensure excellence in education results can be achieved.*

**Keywords:** *OLES, knowledge, usage, motivation and electronic learning system.*

## I. INTRODUCTION

In today's competitive world economy, the success of a country depends on the knowledge, skills and competencies of the people. Therefore, Malaysia needs to ensure that the development of existing educational methods is able to create a creative and innovative society and able to produce an efficient workforce. There is no denying that the process of implementing education transformation requires new approaches and strategies for every student to acquire and master the skills needed in the 21st century (Razak, 2013).

To meet the goals of education and student demand, the

development of electronic learning systems is a catalyst for educational institutions today (Alsabsy et al., 2013 & Docimini & Palumbo, 2013). Electronic learning systems have a positive effect on teachers and students especially in terms of their attention span, learning and perseverance training, as well as their attitude towards cooperation and interaction (Ozdamli & Uzunboylu, 2014; Chen & Tseng, 2012). Previous study (Chen and Tseng, 2012) has shown that learning can save time and access to information and techniques that can be implemented easily and quickly by using the electronic learning system. According to Kratochvíl (2013), all individuals who have used the electronic learning system prefer to use it for the purpose of learning because of its easy access to information and a flexible impact on time, space and online collaboration.

The use of electronic learning system in higher education institutions have been synonymous with the development of education in Malaysia. It could be argued that today's electronic learning system is the key to driving education progress that can transcend the world of globalisation without boundaries. In fact, learning activities are also becoming more effective and efficient. According to Mohamed Amin Embi (2010), if students and lecturer do not use the electronic learning system provided by the institution, then all programs will be run by the ministry involving the latest technology will not be effective enabled.

A study conducted by Kamarul Ariffin (2010) revealed that awareness of the effectiveness of electronic learning systems is still low among lecturers. This result is in line with a study conducted by Ahmad et al. (2010) where the use of electronic learning among lecturers in teaching is still low and students also show moderate levels. Although students' knowledge is high, students' attitude and motivation towards the electronic learning system is modest. It is clear here that in order to improve student readiness for the use of the electronic learning system, they must strive to change their attitudes and motivate them not to miss out on the current age of student-centered learning or Outcome Base Education. Yahaya & Ning (2011) in a study at Universiti Teknologi Malaysia (UTM) found that students' motivation towards using electronic learning system was modest. The findings show that students have mastered the knowledge of the use of electronic learning systems and the need to be positive during their study at the University of Technology Malaysia.

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Shy students can interact with lecturers through the forums of electronic learning system forums compared to conventional methods of face-to-face and in the age of globalisation (Kassim & Ahmad, 2010).

The study of Jamil @ Amat & Retas (2011) found that aspects of students' attitude and motivation towards using the electronic learning system were modest. This shows that students are aware of the use of electronic learning systems but students need to change their attitudes and motivate themselves in using the electronic learning system. Barriers such as inadequate internet facilities in the Polytechnic, access to slow electronic learning systems and frequent interruptions of the internet have adversely affected students' readiness to use the electronic learning system. The students also agreed that the encouragement from the lecturers convinced them to use it according to a study conducted by Mohd Nihra et al. (2007) which states that the role of lecturers is very important in improving the effectiveness of the use of electronic learning systems.

The use of electronic learning systems is not uncommon among educators and students at present. However, looking at previous studies, it is found that the use of electronic learning systems among students has not reached the maximum level for their learning purpose. There are several factors that have been identified that make the use of electronic learning systems low such as student knowledge of the importance of using electronic learning systems in the learning process, low levels of motivation among students due to various factors, problems related to the use of electronic learning system among students due to lack of technological preparation and lack of encouragement from lecturers in the study. In line with the national education reforms, electronic learning systems are an important medium for making learning more effective. Therefore, the purpose of this study was to identify whether the problems encountered by other researchers in the study were similar to those that to be conducted. The main focus of this study is to look at the knowledge level, usage level and level of motivation among KPTM Batu Pahat students in electronic learning system.

## II. METHODOLOGY

This study is a quantitative study and the research method is descriptive using non-experimental design. This study is divided into two phases. The first phase is to obtain the total population of KPTM Batu Pahat students from various fields. The second phase involved distributing the questionnaire to the students involved using the questionnaire that had been approved by the expert.

### A. Population and Sample

The population of this study comprises 750 students of College Poly-Tech MARA Batu Pahat from various fields namely Diploma in Computer Graphic Design, Diploma in Information Technology, Diploma in Computer System & Networking and Diploma In Business Information Technology. The student group is also involved in the use of electronic learning systems implemented at KPTM. The sample size for this study was set to 258 which is based on the Krejcie and Morgan (1970) table, where the population

(N) is 750, estimated sample size (S) is 250 people..

### B. Instrument

The questionnaire has three sections consisting of sections A, B, C and D. Part A of the questionnaire is demographic information while section B measures the level of student knowledge of the electronic learning system. The research instrument for section B contains 14 items. Part C of this survey contains 14 items that measure the level of student use of the electronic learning system. Part D consists of 12 items that address questions related to students' motivation for using the electronic learning system. The total number of items that fit the questionnaire was 30 question items (Chua, 2011).

The validity of the instrument was determined by the validity of the face, the validity of the content and the validity of the construct by which the questionnaire items were obtained from three experts, including lecturers from the University Tun Hussein Onn's Faculty of Vocational Technical Education Department, to confirm the face and content of the instrument to be developed. The reliability of the instrument was conducted by conducting a pilot study in which 30 students were sampled. The pilot study sample consists of students from the Diploma in Human Resource field where the group of students has never used the electronic learning system. The pilot study showed that the questionnaire was constructed with high reliability with Cronbach alpha 0.965.

### C. Data Analysis

The information obtained from the questionnaire was coded and all data were processed and analysed using (SPSS 21.0). In this study, the data obtained from section A of the demographic questionnaire were analysed by obtaining the frequency and percentage of the data involved. To answer the questions of study one, two, three and four in this study, the data obtained from questionnaire B, C and D are knowledge level, usage level and motivation level for electronic learning system among students of College Poly-Tech MARA Batu Pahat, the researcher used the mean score method and standard deviation for each item based on Likert Scale. To answer the question of the fourth study, the relationship between knowledge level, level of use and motivation level, the data form for analysis is to use the Pearson correlation test where the test is to determine if there is a significant relationship between the three stages to be tested.

## III. DATA ANALYSIS/RESULT

107 of the study sample were of male students while 151 sample were female students. There were four age categories in this study, namely 18 to 20 years, 21 to 22 years, 23 to 24 years and 25 years and above. Table 3.1 below shows the percentage of samples by age involved in this study.

**Table 3.1: Sample Distribution by Age**

Age (years)	Frequency	Percentage
18 to 20	213	82.6
21 to 22	32	12.4
23 to 24	11	4.3
25 years and above	2	0.8
<b>Total</b>	<b>258</b>	<b>100</b>

The first research question was to examine the level of student knowledge of the electronic learning system. The

results of the analysis clearly show that the level of students' knowledge of the electronic learning system as a whole is modest relative to the mean score (2.73). Although the analysis found the overall mean to be moderate, there were items with the highest and lowest mean scores. For a high mean score value of (3.00) refer to items "Learning systems can save me time and energy in finding the latest resources and materials in each subject studied". The mean score is (3.00). For the low mean score value of (2.32) referring to the item "I got information on how to use electronic learning system from technicians". Table 3.2 below shows the level of student knowledge against an electronic learning system.

**Table 3.2: Level of Student Knowledge against an Electronic Learning System**

No	Items	Min	Std dev	Min Score Interpretation
1	I know what it's electronic learning system	2.68	1.036	Moderate
2	I have extensive knowledge of electronic learning systems	2.41	0.93	Moderate
3	I can access the electronic learning system at any time	2.64	1.084	Moderate
4	I can access electronic learning systems everywhere	2.64	1.062	Moderate
5	I got information on how to use the electronic learning system from lecturers	2.72	1.142	Moderate
6	I got information on how to use an electronic learning system from a technician	2.32	1.047	Moderate
7	The electronic learning system developed by the college is for all subjects	2.66	1.091	Moderate
8	I'm very easy to understand and learn from the electronic learning system developed by the college	2.65	1.042	Moderate
9	An electronic learning system can provide additional information on assignments provided by lecturers	2.96	0.966	Moderate
10	The electronic learning system enabled me to connect and communicate with my lecturers	2.91	0.96	Moderate
11	The electronic learning system has provided a medium for me to exchange information and insights with other study partners	2.86	0.906	Moderate
12	Electronic learning systems can save your time and energy to get the latest resources and materials in every subject you learn.	3	0.964	Moderate
13	Electronic learning systems facilitate access to information that is constantly updated by lecturers	2.95	0.967	Moderate
14	Make it one of the most effective ways of learning	2.92	0.977	Moderate
<b>Overall Average Min</b>		<b>2.73</b>	<b>781</b>	<b>Moderate</b>

The second research question was to study the level of student use of the electronic learning system. The results of the analysis clearly show that the level of student use of the electronic learning system as a whole is modest relative to the mean score (2.71). While the analysis found the overall mean score to be moderate, there were items with the highest and lowest mean scores. For a high mean score value of (2.96) refer to items "I like using the electronic learning system to easily get a lot of additional information to make it easier for me to complete assignments". For the low mean

score value of (2.41) referring to the item "I got technical assistance from technicians on how to use the electronic learning system". Table 3.3 below shows the level of student use against an Electronic Learning System.

**Table 3.3: Level of Student Use against an Electronic Learning System**

No	Items	Min	Std dev	Min Score Interpretation
1	I use an electronic learning system for every subject	2.50	.930	Moderate
2	I use the electronic learning system completely	2.43	.885	Moderate
3	I use the electronic learning system anywhere and anytime	2.53	.975	Moderate
4	I got technical help from lecturers on how to use the electronic learning system	2.61	.989	Moderate
5	I got technical help from technicians on how to use the electronic learning system	2.41	.963	Moderate
6	I will only use the electronic learning system if I have to	2.61	1.004	Moderate
7	I always ask lecturers if i have any problems when using electronic learning systems	2.74	1.039	Moderate
8	I use the electronic learning system to easily get a lot of additional information to make it easier for me to complete assignments	2.96	.918	Moderate
9	I have an electronic learning system to connect and communicate with lecturers at any time	2.84	.957	Moderate
10	I use the electronic learning system to exchange ideas and insights with my peers	2.85	.959	Moderate
11	I use the electronic learning system to access new learning materials and updated by lecturers for reference	2.94	.975	Moderate
12	I use the electronic learning system to enhance my understanding of the learning methods taught by the lecturers in the classroom	2.90	.963	Moderate
13	Making my learning method more creative and fun by using the latest technology	2.91	.996	Moderate
<b>Overall Average Min</b>		<b>2.71</b>	<b>.761</b>	<b>Moderate</b>

The third research question was to study the level of student motivation in the electronic learning system. The results of the analysis clearly show that the student's level of motivation for the overall electronic learning system is modest relative to the mean score (2.97). While the analysis found the overall mean score to be moderate, there were items with the highest and lowest mean scores. For the high

mean score value of (3.19) refer to my item “I realised that electronic learning system has many advantages and disadvantages”. For the low mean score value of (2.73) referring to items “I always ask my friends to join us using the electronic learning system”. Table 3.4 shows the level of student motivation in the electronic learning system.

**Table 3.4: Level of Student Motivation against the Electronic Learning System.**

No	Items	Min	Std dev	Min Score Interpretation
1	I like to use the electronic learning system to enhance my understanding while studying	2.93	1.050	Moderate
2	Encourage lecturer to use electronic learning systems	2.95	1.016	Moderate
3	I knew I would be left behind if I didn't use the electronic learning system in my learning	2.96	1.030	Moderate

4	I am very pleased with the speed of internet access provided by the college for access to the electronic learning system	2.77	1.028	Moderate
5	I always invite my friends to join us in using the electronic learning system	2.73	1.027	Moderate
6	I realize that electronic learning systems have many advantages and benefits	3.19	1.042	Moderate
7	The electronic learning system increased my readiness to attend college	2.91	.992	Moderate
8	The electronic learning system increased my focus on classroom learning	2.98	.998	Moderate
9	Electronic learning systems can enhance my confidence in learning	3.01	1.057	Moderate
10	Electronic learning systems can make my learning method more interesting, creative and less boring	3.12	1.014	Moderate
11	An electronic learning system can save the time, time and energy to access all information and materials at your fingertips.	3.18	1.017	Moderate
<b>Overall Average Min</b>		<b>2.97</b>	<b>0.845</b>	<b>Moderate</b>

The fourth research question was to study the relationship between students' level of knowledge, use and motivation in the electronic learning system.

Levels of knowledge and usage were tested using Pearson correlation method. The findings show that there is a strong

positive correlation between the level of knowledge and the level of use of the electronic learning system among KPTM Batu Pahat students. The correlation test shows  $r = 0.767$ ,  $n = 258$ ,  $p = 0.000$ . This correlation test showed significant  $p < .01$ .

**Table 3.5: Correlation Test the Knowledge level with Usage Level**

		Knowledge	Usage
Knowledge	Pearson Correlation	1	.767**
	Sig. (2-tailed)		.000
	N	258	258
Usage	Pearson Correlation	.767**	1
	Sig. (2-tailed)	.000	
	N	258	258

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Levels of knowledge and motivation were tested using Pearson correlation methods. The findings show that there is a strong positive correlation between knowledge level and motivation in the use of electronic learning system among

KPTM Batu Pahat students. The correlation test shows  $r = 0.726$ ,  $n = 258$ ,  $p = 0.000$ . This correlation test showed significant  $p < .01$ . Table 3.6.

**Table 3.6: Correlation Test the Knowledge Level with Motivation Level**

		Knowledge	Motivation
Knowledge	Pearson Correlation	1	.726**
	Sig. (2-tailed)		0
	N	258	258
Motivation	Pearson Correlation	.726**	1
	Sig. (2-tailed)	0	
	N	258	258

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Motivation and utilisation levels were tested using Pearson correlation method. The findings show that there is a strong positive correlation between motivation and the use of electronic learning systems among KPTM Batu Pahat students. The correlation test shows  $r = 0.784$ ,  $n = 258$ ,  $p = 0.000$ . This correlation test showed significant  $p < .01$ . Table 3.7.

Table 3.7: Correlation Test The Motivation Level and Usage Level

		Motivation	Usage
Motivation	Pearson Correlation	1	.784**
	Sig. (2-tailed)		.000
	N	258	258
Usage	Pearson Correlation	.784**	1
	Sig. (2-tailed)	.000	
	N	258	258

\*\* . Correlation is significant at the 0.01 level (2-tailed).

IV. FINDING AND DISCUSSION

The findings show that the mean value of overall mean scores for students' level of knowledge is modest in terms of students' knowledge of the electronic learning system. This clearly indicates that students' knowledge of the electronic learning system developed by the college is modest. In order to increase students' knowledge of electronic learning systems there should be assistance and support from stakeholders such as lecturers, technicians and system management. The lack of clarity and explanatory information is one of the reasons why students' knowledge is so low. This refers to the lowest mean scores where students' knowledge is comfortable because they do not have the correct information and methods related to the use of electronic learning systems by technicians.

This is because the technicians only monitor the system's development and there are technicians who do not have the full knowledge of the system itself. In addition, students may find it difficult to obtain information from the technicians because the technicians prefer to submit the problem to the lecturer for resolution because the technicians are rarely in contact with the students. This finding is supported by the study of Mohd Yusri bin Yahya Ariff (2007), where it affirms that the basic skills of computer use are very important in facilitating the use of e-learning in the teaching and learning process.

Having knowledge of the electronic learning system is still not enough for a student to apply and access electronic learning systems in the learning process. This is because without sufficient knowledge and sufficient skills, students will not be able to handle things well. The findings show that the level of use of electronic learning systems developed for each subject syllabus is low among students. According to Rose (2012) also said via e-learning, students are able to search and retrieve information based learning syllabus or criteria set by the lecturer.

In addition, students do not fully use the electronic learning system and students do not always access the system beyond their learning time at any time. This is evidenced by the moderate mean score value. They know that every use of the system can have a positive and negative impact on every subject studied. Excellent students will always improve their self-esteem in terms of knowledge and skills according to the needs of the current environment. According to Venkatesh et al.(2000), individuals will use technology when it benefits themselves and their work or organisation. Similarly, if a technology is easy to use, individuals will be encouraged and used it.

There are also findings from studies that show that students are less likely to receive technical assistance from lecturers regarding the use of electronic learning systems. These are some of the lecturers themselves who rarely use the system and do not have full proficiency in the system. Lecturers are more comfortable using the manual approach than having to use electronic learning systems for the purpose of their teaching activities. When no technical assistance can be provided from the lecturer, it showed no significant encouragement by lectures to students on the use of the system. This statement is supported by a study conducted by Norwati and Zaini (2007) who found the commitment of students and academics is one of the factors in ensuring that e-learning can be achieved.

V. CONCLUSION

The findings of the researchers show that the research has been achieved and has successfully answered all the research questions that were focused at the beginning of the study in chapter 1. Overall it shows that the knowledge level, usage level and motivation level of KPTM Batu Pahat students in the electronic learning system is moderate. In addition, this study also shows that there is a strong relationship between the three research questions that have been developed. This means that the element of knowledge, use and motivation are closely related. And if one of these elements is low, then the other element will be lower and vice versa. This clearly shows that KPTM Batu Pahat students have used electronic learning systems developed by the college in their learning activities. However, a number of factors have been identified that have led to the use of a simple system. Therefore, improvement and monitoring from management, colleges and lecturers need to be made to ensure increased system usage among students. This is because the system has a great impact on the academic achievement of students and most importantly, enables the R&D activities in the classroom to be more effective, creative and outstanding.

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**Nurhidayah binti Othman** was born in Batu Pahat, Johor. She is a daughter of a couple Pn. Hj. Maznah binti Damiri and Tn. After Hj. Othman bin Ismail. Her mother was a former teacher while her father was a former Deputy of District Education Officer. finish her SPM examination, she continues her study at Open University Malaysia in course of Information Technology & Management and manages to acquire a degree title in her study. Following in time, in year 2014, she further her study once again at Universiti Tun Hussein Onn Malaysia in Education & Vocational course until year 2017 and manage to achieve a master degree title.

Currently, she is working at private college sub under MARA organization which is known as Kolej Poly-Tech MARA (KPTM) Batu Pahat and holds a role as Deputy of Human Resources Director. She has served about 10 years in the college. She has a broad experience in governing Administration and Logistic Department while serving in Human Resource Department in 4 years period. After that, she is fully reserved in Human Resource Department in 6 years period. She also has an experience in conducting ISO 9001-2008 and ISO 9001-2015 then was appointed as an Audit committee in ISO execution in KPTM Batu Pahat.



**Prof. Madya Ts. Dr. Kok Boon Ching** obtained his Bachelor's degree (Electrical Engineering), Master's degree (Electrical Engineering) and Doctor of Philosophy (Electrical Engineering) respectively in 1998, 2002 and 2009 from Universiti Teknologi Malaysia (UTM). From 1998 to 1999, he served in the Engineering Department, Likom Technology

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**Prof. Dr Yeo Kee Jiar** has been an academician for more than 30 years. Her areas of interest include educational psychology, early childhood education, special education and language study. Among her key contributions include the appointment as Munsyi Dewan, the National Quality Panel for the PERMATA Program, chief editor of international journal, the international committee for several

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