RESEARCH ON E-LEARNING ACTIVITIES OF STUDENTS – CASE STUDY ON THU DAU MOT UNIVERSITY, VIETNAM

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ABSTRACT

In the age of Information Technology, the domestic and foreign education sector is focusing on developing an open and distance education or online education (E-learning). However, the condition of investment resources for online education still faces many difficulties and limitations. And Thu Dau Mot University was no exception, it has achieved a lot of accomplishments since applying the E-learning system into the education. However, due to the fact that it has just started to implement in a short time, and the officials, lecturers and the students at the school has not pay much attention to this issue yet, so it has encountered many difficulties and incidents frequently happens that affecting it. Not small to the educational work. Through the theoretical basis of online learning activities (E-learning); Survey, evaluate and analyze the status of online learning activities as well as expand online teaching activities at Thu Dau Mot University, the research team proposed measures to overcome disadvantages and improve High-quality E-learning system to serve the effective learning and teaching process.

Keywords: E-learning, activities, student, university, Vietnam.

INTRODUCTION

Entering the 21st century, the revolution of industrialization and modernization, the knowledge economy and especially the technology boom in the 4.0 technology revolution has made the world change regularly, continuity. Not only economic sectors, service trade is constantly improving, but education is also one of the industries facing many challenges. Therefore, Vietnamese universities in general and Thu Dau Mot University in particular often innovate and strengthen the development of training methods for students to meet the latest knowledge and skills. for creating workforces that meet the requirements of the new society.

Nowadays, Vietnamese Ministry of Education and Training is implementing the "Education Development Strategy 2011-2020", the "Innovating the comprehensive table of Vietnamese education" project to keep up with the requirements of new society. In the process of implementing the above projects, one of the important solutions is fostering the application of information and communication technology and education activities.

The application of information and communication technology has made education change drastically from the content, methods and organizational forms of teaching and learning from primary to tertiary and postgraduate. The countries of North America, Europe, Australia and Northeast Asia, India, or regional countries such as Thailand, Singapore, Malaysia, etc. have also been strongly studying the application of information technology and communication into education.

The application of information technology in education, especially online training methods and E-learning based on Internet communication technology, has been strongly developed in distance learning and self-learning. This is considered one of the effective training tools and methods to provide everyone the lifelong learning opportunities. The E-learning development for Education and Training Research is an indispensable trend to meet the needs of regular and lifelong learning.

However, E-learning requires different materials from traditional materials in many ways. That difference is becoming an object of interest that needs to be researched in order to develop E-learning materials effectively. In terms of entities, E-learning materials are virtual, or digital, not traditional physical resources. In term of functionality, E-learning has more potential for interaction, multimedia and greater consolidation. It may contain a huge amount of intellectual resources.

In essence, E-learning training methods are more multi-source, more updated and especially more international, easier to share.

According to statistics of Unisys University (USA) in 2001, the benefits of e-learning application are shown by the following numbers: Saving training costs by 25% - 45%; Shorten training time by 35% - 45%; Increase learning efficiency by 15% - 25%.

Besides, in the process of teaching and learning, student-centered learning is changing every day, every hour. Students are the main subject of the teaching and learning process, and the instructors are the ones who guide and organize activities to stimulate students' interest in learning and engage them in useful activities. In fact, from domestic and foreign studies, students entering the university environment are very passive. Most of the time, they were familiar with the passive psychology of high school so they did not have the skills to search for materials, use the materials or the advice of lecturers, causing them many difficulties. Along with the application of information technology, the application of online training (E-learning) in education requires learners with a spirit of self-study, self-learning, and creativity that has made learners and people alike Teach met many surprises and difficulties. Some of the difficulties can be clearly seen that using E-learning system for new people has many obstacles. Creating an account, how to log in, change information, ... or even a way to download a course material that you are attending many times makes students in trouble.

Research on "The reality of online learning activities of students of Thu Dau Mot University" with the aim of systematizing the theoretical basis of online learning activities (E-learning); Survey, evaluate and analyze the status of online learning activities as well as expand online teaching activities at Thu Dau Mot University, The research team proposed measures to overcome weaknesses and improve the quality of E-learning system to serve the effective learning and teaching process.

LITERATURE REVIEW

In the Doctoral Thesis in Education Studies, "Developing E-learning materials to meet the professional and the expertise development needs of primary teachers" of Nguyen Minh Tuan mentioned that: Since the 90s of the last century, the study and the application of IT in teaching have been implemented by many scientists and educators. The beginning of E-learning was studied in North America, Europe, after that, the countries in Asia pay attention to this issue,

especially Korea. Many studies on teaching software, web-based training, online training courses, etc. have been conducted since the late 20th century (Nguyen Minh Tuan, 2016).

In the US, in a statistic of the American Society for Training and Development (ASTD), by 2000, nearly 47% of universities and colleges had proposed different distance learning models that create 54,000 online courses. By 2004, about 90% of US universities and colleges researched and developed E-learning models, the number of people taking courses increased 33% annually between 1999-2004. And most of schools have received extremely satisfied feedbacks from the students with the utilities that E-learning system brings to them during the learning process. Getting used to this new training method is pretty quickly when learners are guided by their instructors.

In the UK, the University of Glasgow has started to use E-learning system then research and analize the results when applying online training methods to teaching. This system is built on the platform of moodle lecture management software (Modular Object-Oriented Dynamic Learning Enviroment), one of the open-source software for E-learning and it is also the most widely used software today. After several years of application, Moodle has created an E-learning environment in order teachers to provide lectures and learning materials to students by the most convenient way. However, the school has organized periodic surveys for students to evaluate this learning method and received an unexpected result. The result of the survey shows that the courses have not been really flexible yet, in order to get the lectures of the course, students must choose the available curriculum or choose the lectures to refer to the course. Students will be depend on the previous program, the content is the same for all students, this leads to courses that are not entirely consistent with the actual capacity of the students, not guaranteed differentiated learning ability.

In the evaluation report "Inservice teacher training evaluation. Internal report ”has received many comments and feedback from students when participating in courses about the course content as well as the ways to improve and enhance the curriculum. Specifically:
Out of 680 participants in 11 courses, there are 54% rated the courses as “good” and actively participated in online sciences;

There are 43% of students using the Internet in the classroom and about 42% of students using the computer room at the provincial Education Offices to study (high-speed, no-cost connection), only 15% of the students using the Internet at home;

More than 70% of students are interested in online training than traditional methods (because it is more flexible and attractive, some students do not support it because of the way to manage, check and evaluate online courses are inappropriate), more than 30% of offers are replaced with online reviews;

There is a lack of interaction between lecturers and students, some lecturers lack online skills;
In Vietnam, E-learning training methods have been gradually applied in educational institutions since the 1990s. The Ministry of Education and Training has introduced E-learning to schools by building websites, providing software tools to build E-learning, resource sharing forums. Distance learning department, Hanoi Open University has also established a website to support the distance learning. This site provides documents (mostly in pdf and audio files format), PowerPoint lectures in order to support students in the learning process.

In the scientific report "E-Learning and basic difficulties in organizing physical cognitive activities of students - remedial solutions" of Assoc. Dr. Pham Xuan Que, at the National conference on innovation of teaching method and training of Physics teachers, Hanoi University of Education 2003 pointed out the advantages and basic difficulties in organizing physical cognitive activities of students when applying this online training method. The advantage of using this method is that lecturers can support students through online discussion (if lecturers are online) or send notifications to students via email, ready to "jump in" when needed or anywhere as long as the devices have Internet support. E-learning helps students proactively carry out learning activities to build practical competencies and applications in courses. However, when there is a request from the student, the teacher should follow up closely to promptly adjust if the students have any sign that their study is deviated because of the communication and information exchange process, observing student learning is impossible when they only interact through a website.

At Can Tho University, in the scientific report "Actual status of E-learning system at Can Tho University" by Thach Thi Tuyen has released statistics on the total number of users when this system was applied. Based on the above statistics, the report has highlighted that the advantage of using this training method is time and cost savings for both schools and students. Students can choose a course that fits their schedule and improve their knowledge through the available on-line library by themselves. However, this system must depend too much on the individual's network infrastructure, hardware, software, and equipment. In addition, for practical subjects, the E-learning system does not meet the requirements of the subject.

Scientific research paper "Integrating factors affecting learners' satisfaction into E-learning system: A situation at the University of Economics and Law" by two students Vu Thuy Hang and Nguyen Manh Tuan has pointed out the factors affecting learners when using this online learning system. The results of the survey show that the ease of use, enthusiastic faculty to students and updated learning resources are the most significant. In addition, whether the application of this training method is effective or not depends on the user interface of the site with logic, good-looking, easy-to-operate or not.

METHODOLOGY

Hypothetical method: Predict the nature of the object and seek to prove those predictions.
Methods of historical research: Inheriting and acquiring knowledge and history from previous people who have done it.
Practical research methods:
Data collection: Collecting data and information in the form of data, quantitative representation rate or quantifiable properties of the research subjects.
Consult with experts: Investigate through the evaluation of experts on a problem, a scientific event, use intelligence, exploit the opinions of highly qualified experts to consider, identify a problem, a scientific event to find the optimal solution to that problem and event.
Analysis - synthesis: Divide the object into isolates of different nature. Through separate analysis of each part, the researcher synthesizes to find the inevitable relationship between the parts that have been analyzed, thereby forming an overview of the nature of the research object.
The method of survey by questionnaire: it is a method of writing interviews, not taking verbal questions, done at the same time with many people with printed questionnaires. Respondents answered by ticking the appropriate box according to a certain convention (for multiple-choice questions, level assessment, ...); Fill in the answers given by the respondents in the blank (for open questions).

In this paper, we use two questionnaire for students and lectures. The content of the questionnaire revolves around assessing the satisfaction of students and lecturers, the difficulties or advantages that learners and teachers encounter when working E-learning system at research educational institutions.
In order to understand the current situation of using E-learning system of Thu Dau Mot University and some related issues, we conducted and collected the opinions of 35 random lecturers and lecturers at the school.
To study the status of online learning activities of students at Thu Dau Mot University, we have conducted a random survey of 300 students at the school.

Scale Convention:
We use a quantitative scale. When analyzing, the average score is calculated as follows:

$$\overline{X} = \frac{\sum_{k=1}^{n} a_k x_k}{N}$$

In which: x1, x2, ... xn are n elements in the sample set; who is the weight of xi element; N is the total number of elements in the sample.
Evaluate the results of each content selection according to the average score as follows:

The level of response	Totally agree	Agree	Disagree	Totally disagree
X value	3,28 – 4	2,52 – 3,27	1,76 – 2,51	1 – 1,75

Survey time: May 2019
Methods of analyzing and processing information: Using mathematical methods to process data; SPSS software. This is an important stage after conducting other survey methods, especially the questionnaire survey method. From there, quantitatively and qualitatively assess the results of the survey.

RESULTS AND DISCUSSION

TEACHERS 'AWARENESS ABOUT E-LEARNING

Designed with the purpose of providing utilities to create favorable conditions for learning and research, E-learning system has brought many new discoveries and interesting experiences for users. E-learning users include both lecturers and students. Besides the advantages that the use of E-learning system in teaching as well as learning brings to the users, it still faces some limitations in the implementation process.

For each subject with different roles and uses, there will be different feelings about this online learning system. We will first analyze its advantages and limitations as a lecturer.

Since the establishment of the university, most of general and specialized subjects have been taught by using traditional methods. By 2017, Thu Dau Mot University officially applied the E-learning system to the curriculum of general subjects and achieved many positive results. In order to learn about lecturers 'awareness about the E-learning system of Thu Dau Mot University, we explored teachers' perceptions and assessments when conducting teaching activities by conducting random surveys with 35 officers and teachers at the school and obtained the following results:

Table 1. Assessment of lecturers and management staff when applying E-learning system to teaching

	Level								Result	
	Totally agree (4 points)		Agree (3 points)		Disagree (2 points)		Totally disagree (1 point)		Medium score	The level
	%	N	%	N	%	N	%	N		
The interface is easy to use, it does not require much knowledge about information technology.	11,4	4	77,1	27	5,7	2	5,7	2	2,94	3
Save time and money.	2,9	1	91,4	32	5,7	2	0	0	2,97	2
It is easy for lecturers to follow the learning process of students.	0	0	60	21	40	14	0	0	2,6	6
It is easy to transfer knowledge to students	2,9	1	31,4	11	65,7	23	0	0	1,77	9
It is easy to create the forms and the exams.	20	7	65,7	23	2,9	1	11,4	4	2,94	3
Safety, high security.	14,3	5	74,3	26	11,4	4	0	0	3,02	1
Fast network connection speed, timely responding to the requirements of the teaching process.	0	0	8,6	3	48,6	17	42,9	15	1,66	10
Train and shape skills for students.	0	0	68,6	24	31,4	11	0	0	2,68	5
Organizing tests on the system to ensure the assessment of students' ability.	0	0	45,7	16	45,7	16	8,6	3	2,37	8
Students voluntarily participate in the course.	8,6	3	40	14	51,4	18	0	0	2,57	7

Looking at Table 1, we can see that most of the respondents (77.1%) surveyed feel that the interface of the system is easy to use and does not need much IT knowledge. The implementation of operations on the current E-learning system of Thu Dau Mot University is quite simple. Besides, the lists and settings on the system are quite clear. In addition, when teaching on E-learning, some officicers and lecturers save a lot of cost and time. Currently, there are not all of the officers and the lecturers working at the school live near the school. There are some lecturers invited to teach by the school in the Ho Chi Minh City or nearby universities. Therefore, the application of E-learning system helps them reduce travel expenses. However, at present, the E-learning system is still limited at the general modules.

However, for the remaining 5.7% of Officials and Lecturers disagree with this. In order to prepare a high quality E-learning lesson like the traditional teaching method, it requires a lot of effort of lecturers. However, there are not all lecturers have much experience in information technology to compose electronic lessons, record videos or make the educational games. Besides, due to it have just been used for not long time ago, the incident is inevitable. But for teachers, these incidents make them waste a lot of time and make the time-saving benefits of this online method of teaching lost.

E-learning system helps Cadres and Lecturers can prepare quick tests with accompanying software. On the other hand, when the Student Instructor conducts a test on the system, the Instructor can get immediate results without spending more time to mark the test.With this advantage, when preparing the test, the lecturer must carefully consider and calculate the distribution of questions so that the results of the objective assessment, according to the capacity of the Student. However, because the new system is put into operation not so long, it often happens. Some lecturers said that they could not log into the system during the time when there were too many people working together. This proves that the system needs to be upgraded to be able to allow more visitors.

As we all know, the main purpose of the teaching process is to impart knowledge to the learner, to organize, to guide learners to research new knowledge, and the teacher also wants to impart to learners the skills reality. During the survey process, with 31.4% of the staff, lecturers said that learning through E-learning system could not help students develop skills. Lecturers can only impart knowledge to students using the "keyboard" method or pre-recorded videos. Some lecturers have asked the question, "If in the process of acquiring knowledge, students have questions, can I explain it to them through the chat box and keyboard language?" .

68.6% of lecturers and lecturers thought that self-study skills for students could be formed by using this method and 31.4% of lecturers disagree with the GPA = 2.68. But when looking at the survey section on the opinion that "students voluntarily take part in the course", up to 51.4% of officials and lecturers disagree. Indeed, only through a computer screen, at different geographical distance, the lecturer absolutely cannot observe his students. We can see that not all students are self-conscious, passionate about seeking new knowledge so sometimes they just leave the screen on to show that they have participated in the course but it is true. they are not there or have someone else do it. This makes the assessment of students' competency no longer objectively accurate.

All E-learning systems in general and E-learning systems of Thu Dau Mot University in particular run on network communication infrastructure and software infrastructure. This shows that the access to the E-learning system is too much to depend on the objective "network connection".

Not everyone can equip themselves with a very strong internet connection to be able to run smoothly all websites. Or not all websites allow people to access without limit of number. All have limits. In the above survey, it is said that making teachers and lecturers afraid to apply E-learning system to teaching is the speed of the network. Up to 45.7% Officers, Lecturers disagree and 8.6% Officers, Lecturers completely disagree with the opinion “The speed of the network is fast, timely response to the requirements of the process. teaching”and this is also an underestimated factor with an Average Score = 1.66. All lecturers feel dissatisfied because the system is always overloaded when conducting teaching.

Table 2: Training situation on applying E-learning system to teaching of lecturers and lecturers of Thu Dau Mot University

	N	%
Has been trained	16	45,7%
No training yet	14	40%
Prepare to attend the training	5	14,3%
Expected not to participate in the training	0	0

Subsequently, we conducted the survey with those 35 Officers and Trainers and received the results that there are only 45.7% of the trainers had been trained. The remaining 40% of lecturers have not been trained and 14.3% of lecturers are going to attend the training but the program has been postponed. This also greatly affects to the teaching work. Thereby, we realized that most lecturers were not satisfied with the translate to guide how to use E-learning in teaching.

Whether to perform a certain operation on the computer or simply solve a math problem, we need to know its formula. Similarly, in order to fully utilize the benefits that E-learning system brings to the teaching, lecturers need to be trained to use. In the questionnaire, with the question: "Would you please give some comments on the current E-learning system of Thu Dau Mot University", they suggested that they need to organize more intensive training on this system to help them to easily manipulate and solve problems in order to timely support their students. From the results of the survey and analysis of the above situation, we can see that most lecturers are afraid to use the E-learning system in their teaching partly because it has not been clearly disseminated, a partly because it requires a close combination of traditional teaching methods that require officials and lecturers to spend a lot of effort.

STUDENT'S AWARENESS ABOUT E-LEARNING ACTIVITIES

In the context of Industry 4.0 in the education system, the emergence of the E-learning system marked a major change in student's approach to knowledge. This online learning method helps students in general universities and students of Thu Dau Mot University escape the "boredom" in lessons as well as the dependence on space and time.

When the lecturers at Thu Dau Mot University applied the E-learning system to the general subjects, they received good feedback from students. For the traditional way of learning, students will end the lessons "teachers stand in the classroom talking continuously, and students can only listen" or sayings that they do not even understand. In this way, teachers have more time to prepare lesson plans or prepare activities for students to help students learn knowledge in an active and diversified form.

Students just need to read the previous lesson on E-learning system, learn the necessary knowledge. In the traditional lessons, students will participate in activities such as drama, games or extracurricular learning activities on the topic of the day. This makes students feel more interested and receptive. In that way, when studying online, students can choose the free time, the space that suitable for each individual to absorb the lesson in the most optimal way.

In the survey to 300 random students at Thu Dau Mot University, we not only used level assessment questions, but also we used some open-ended questions. When conducting the survey with the question: "Do you have some ideas about the current E-learning system of Thu Dau Mot University in learning activities"? Satisfied when studying on the system of learning compared to the traditional method. The rest think that studying on E-learning is very convenient but the quality of the system is still poor, not meeting your learning needs.

Studying on E-learning system also helps students practice high self-study spirit. Through the E-learning system, students can monitor their own learning process to arrange a reasonable study time. However, besides the agreement, there will be disagreements when applying the E-learning system to teaching and learning at Thu Dau Mot University. For a majority of students think that E-learning is similar to self-study and only for students who are really eager to learn. Self-study plays a very important role in the student's undergraduate process. Self-study aims to promote self-study and research. Self-study for students is very important because it helps students to practice their individual's thinking and creativity. Because studying under a credit program so self-study is really important and the E-learning system can meet this need.

On the other hand, there are some opinions that for young people nowadays, in their free time they just plug their eyes into computers or phones, they spend just a little time to communicate with people around them. Going to school is not only for the purpose of helping students find and acquire knowledge but it is also an environment that creates conditions for students to interact with lecturers. This is also an idea that shows us a big disadvantage of E-learning system in particular and the Technology Revolution 4.0 in general.

E-LEARNING ACTIVITIES OF THU DAU MOT UNIVERSITY STUDENTS

In order to find out more about online learning activities of students of Thu Dau Mot University, we will classify 3 main groups of influencing factors.

The first factor is the learning environment. A comfortable learning environment will bring you more excitement, thinking, creativity and imagination than a messy, dark and stuffy space. Learning space will be the factor that influences learning inspiration. For traditional learning methods, a neat and tidy learning space will create more interest for you than a messy, unsanitary space. In addition, the learning space must also ensure the factors of light and sound. So, how does the digital learning environment, E-learning of Thu Dau Mot University affect the learning activities of students at the school? To find out, we conducted the survey and obtained the following results:

Table 3: Assessment of the interface of students' E-learning system

E-learning system interface	Level								Result	
	Totally agree (4 points)		Agree (3 points)		Disagree (2 points)		Totally disagree (1 point)		Medium score	The level
	%	N	%	N	%	N	%	N		
The interface is easy to use, does not require much knowledge about information technology.	25,7	77	66,3	199	7,3	22	7	2	3,17	1
The system runs stably, limiting the situation of dropped network, not accessing the network.	5,7	17	29,3	88	57,3	172	7,7	23	2,33	8
Effective use of infrastructure, quick access to students.	7,7	23	53	159	37	111	2,3	17	2,69	5

Online learning still feels like a traditional classroom.	6,7	20	48,7	146	39	117	5,7	17	2,56	6
Website loading speed is fast.	5,7	17	44,3	133	47,3	142	2,7	8	2,53	7
Design content on every beautiful page.	10,7	32	68,3	205	20	60	1	3	2,89	3
The transition between sites is easy.	8,7	26	63	189	26,3	79	2	6	2,78	4
The content of the design is concise, ensuring full information and materials of each course.	12	36	73	219	13,7	41	1,3	4	2,96	2

Looking at Table 3, we see that 66.3% of students agree that the school's E-learning system has an easy-to-use interface, without requiring much information technology knowledge. Most students feel very happy about this because the general program applied on E-learning system is not only applied for Faculty of Technology - Engineering. This is a mandatory criterion for most information technology applications, especially elearning with a self-study environment. For the design of learning content on the school's E-learning system, the maximum satisfaction of students (63% - 73%) is achieved.

However, with the opinion "The system runs stably, limiting the situation of internet disconnection, unable to access the network", up to 57.3% of students disagree. This data shows that the school's E-learning system is frequently tried to fail. A source from students at the school said that they often get thrown off the site when taking a test or exam. Also, during periods of time multiple layers working on the system lead to system overload and cannot log on. This has an impact on the academic results of students is not small. Students may get poor marks if they do not complete the test or fail to log into the system to check in with the instructor. In terms of efficient use of infrastructure, fast student access, 7.7% agree and 53% agree, 37% disagree and 2.3% agree. I absolutely disagree. As with the idea that “The website's loading speed is fast”, 5.7% of students totally agree, 44.3% of students agree, 47.3% of students disagree and 2.7 % of students completely disagree. This data can show us whether the access is fast or slow depends on many factors. Not only does the main system of E-learning still have many errors or the server has too little capacity, it also depends on the internet connection where students are using.

More remarkable is that teaching for students of Thu Dau Mot University as we know it is still a form of combining online teaching with traditional teaching (Blended learning) so most students do not Differentiate between traditional and online learning with 48.7% agree and 39% disagree. Some students prefer to follow traditional learning methods so that they can enhance the community and communication between teachers and learners but some students like the convenience of time and space due to the E system. -learning brings your learning.

The second factor is community. For education to achieve the highest efficiency, we must promote the strengths of both teachers and learners. Higher education in particular and

education in general always promote community or in other words communication skills between learners and teachers and learners and learners. At universities in Vietnam, the method of working in groups under the guidance of lecturers is heavily used. In order to understand the community of E-learning system, whether communication in education is promoted during students' online learning or not, we conducted a survey and obtained the following data:

Table 4. Student assessment of learning community on E-learning system

The learning community of E-learning system	Level								Result	
	Totally agree (4 points)		Agree (3 points)		Disagree (2 points)		Totally disagree (1 point)		Medium score	The level
	%	N	%	N	%	N	%	N		
Faculty enthusiastic, friendly with students.	13	41	76	228	9	27	1,3	4	3,02	1
The course meets students' expectations.	5	15	59	177	35	105	1	3	2,68	7
Flexible study time, easy to manage.	18	54	64,7	194	16	48	1,3	4	2,99	2
Trainers easily manage students.	14	42	64,7	194	18,3	55	3	9	2,89	5
Information can be exchanged between students and teachers.	13	39	72,3	217	14,3	43	3	1	2,98	3
Students are motivated to learn and ready to learn on E-learning.	7,7	23	47,7	143	39	117	5,7	17	2,57	8
Finding the document is easy.	12,7	38	69	207	17	51	1,3	4	2,93	4
Trainers support to solve problems that arise in a timely manner.	7,7	23	65,7	197	23,7	71	3,7	9	2,78	6

Group of interaction between lecturers and students on the E-learning system is rated highest. This is reflected in the process of learning on the system, students are always timely supported by lecturers when facing difficulties (65.7%). Up to 72.3% of students agree with the idea of "being able to exchange information between students and teachers" as a traditional method of learning. During the course of students have any questions that need answers or need to communicate with other students can go to the chat room to exchange. The function is equivalent to a large social networking site such as facebook, instagram, zalo, etc. This shows that Thu Dau University students show actively asking questions to lecturers or students are required to ask questions. Ask when you don't understand something to keep up. This is one

thing that in the traditional classroom is less developed because there is not enough time when the number of students in a class is too crowded or the class is too boring. These two important factors have motivated the enthusiasm and friendliness of the trainers (13% totally agree, 76% agree). At the same time, this result also shows that the role of lecturers in online teaching is no more obscure than traditional teaching. Lecturers in online teaching are not only those who provide simple electronic materials but also enthusiasm, friendliness and diverse teaching methods of lecturers during the training process, from suggestive words to problems. , guide, encourage discussion, feedback until the final assessment of the subject. Although the content of online lectures is designed already, with the interaction between lecturers and learners that supported fully by IT, the relationship between lecturers and students in the traditional classroom will not change much. The leading role of lecturers is still confirmed as the most important in learning satisfaction of learner.

The third element is content and personalization in learning. Personalization in learning is only a universal concept, but has now been widely applied in schools around the world as a method to help teachers effectively transfer knowledge based on each student's competence.
Table 5. Student assessment of content on E-learning system

Table 5. Student assessment of content on E-learning system

E-learning Content of the E-learning system	Level								Result	
	Totally agree (4 points)		Agree (3 points)		Disagree (2 points)		Totally disagree (1 point)		Medium score	The level
	%	N	%	N	%	N	%	N		
Resources are constantly updated from lecturers and students.	14,7	44	72	216	13	40	0	0	3,01	1
Lecturers and students can easily follow the learning process.	14	43	70,3	211	14,7	44	7	3	2,99	2
The system has data backup mode.	14	42	64,7	209	18,3	45	3	4	2,96	4
High security mode.	13	39	72,3	197	14,3	57	3	7	2.63	6
Resources are easily downloaded.	7,7	46	47,7	200	39	52	5,7	2	2,97	3
Resources are designed in many forms and diverse (videos, images, games, ...)	12,7	54	69	180	17	61	1,3	5	2,94	5

In the survey results about content and personalization in the E-learning system, the most prominent criteria is that teachers and students can easily follow the learning process with 14% totally agree and 70, 3% agree. In the traditional learning environment, the assessment of student learning is only at the time of going to class, apart from that time, the lecturer cannot grasp the student's learning process, especially the process of self-study. With the LMS system,

students and lecturers highly appreciate the monitoring and grasping the learning process when studying online.

Besides, the elements necessary for student satisfaction such as resources are updated continuously (72% of students agree) or resources are designed in many forms and diverse (video, images. , games, ...) (12.7% totally agree, 69% agree) are highly appreciated. The majority of students said that the materials on subjects invested by teachers are typically self-recorded videos to help students easily grasp knowledge. This ensures that the quality of e-learning content is not lower than that of face-to-face teaching that has been applied in advance from Thu Dau Mot University.

However, the results of the high security factor (72.3% agree) and the system with data backup mode (64.7% agree) are contrary to the opinion of the majority. student parts in open-ended questions ask students to state their own opinions when studying online. Many students said they could not log into their account and when they sent feedback to regain their account they were not resolved. This is also proved that after running the average score, the factor "High security mode" is only 2.63 points. The second point worth mentioning is that after students complete the course and finish the semester, the test as well as the course content on the system will be deleted.

So what if students want to search for materials to apply for later learning? These are two big questions for the E-learning system of Thu Dau Mot University.

OVERALL ASSESSMENT ON E-LEARNING ACTIVITIES OF THU DAU MOT UNIVERSITY STUDENTS

Advantages

E-learning system is not limited about the geography, saving space. Students can choose a truly comfortable study space for themselves without going to school. Convenient data storage. Instead of the school have to spend extra spaces to store records, the tests of the modules ,now the school just need to save them on the system. In addition, we can save a long time without losing color, paper rotting, etc.

The fast ability to search data. With E-learning system, students do not need to spend much time searching for necessary documents for the course. Instead, students now just need to click the document search bar or go directly to their course catalog, and you'll immediately see the science literature. Reduce financial costs for schools and teachers. In particular, when applying this method, students can reduce up to 50% of travel costs and venue costs. Students only pay for the course registration.

Save time: Help reduce training time by about 10-20% compared to traditional teaching methods by limiting the dispersion and travel time.
Optimize with content delivered consistently, throughout the course.
Systematizing program content and tests makes it easy for students to follow the learning process.

Faculty members can support students through an online exchange. If lecturers are Online or send notices to students via chat boxes, they are ready to jump in when necessary when required by students. Through the application of E-learning training method, students take the initiative in learning activities to build the capacity for practical application and timely adjustment of thinking manipulations.

Limit

Storage capacity and access speed depend on network infrastructure, hardware and software.

The problem of copyright of lectures also affects a lot to the system. For example, when the institute prepares and posts its resources, students can download it immediately to read offine. This also has two sides of it. Maybe students will share the article to other classes. Since then, copyright is no longer guaranteed like the traditional method of learning.

The number of lectures that lecturers publish is not much

Communication between teachers and learners is limited. When applying E-learning method, learners will not be trained in communication skills. As for teamwork skills, although still possible, there are still some limitations when communicating with the group online.

Experimental subjects cannot be applied, not forged for learners to conduct experiments in biology, chemistry, physics, electricity, as well as experimental research skills.

Reason

Objective reasons

E-learning lectures bring a lot of advantages to teaching, but to some extent, this modern tool cannot fully support teachers in their lectures.

The connection and use of the internet in the school also stopped at the width but did not go into depth such as line speed, transmission equipment ...

The training, fostering and self-fostering of teaching staff has had many forms of organization, but it has only stopped at universalizing basic informatics so lecturers have not gathered enough knowledge, are not available. ready, not proactive to design and apply E-learning lessons effectively.

Facilities, equipment for teaching, especially the teaching of the school are lacking: not having enough projectors in classrooms, and in classrooms not connected to the internet ... Moreover, the regular budget for the school's IT activities is low, not commensurate with the position, role and effects of IT in library activities and teaching activities.

Subjective reasons

There are many embarrassing and passive lecturers when applying IT to lectures. Besides, many older lecturers are not interested in designing and using electronic lectures and e-learning lectures in teaching due to limited IT skills.

Students and faculty are not motivated and interested in this learning method. Mostly because it is still new and there are many incidents that make it difficult for them to receive and adapt to E-learning.

Vietnamese students in general and students of Thu Dau Mot University in particular are still passive in their studies. The E-learning system requires students to learn self-study skills, though creative and unique, to maximize its function to help them achieve academic results but expect

MEASURES TO IMPROVE EFFICIENCY OF E-LEARNING ACTIVITIES AT THU DAU MOT UNIVERSITY

Measure 1: Innovating and completing mechanisms and policies in the school

Meaning: Strengthen the autonomy in training activities and school administration to create flexibility to adapt to the trend of Industry 4.0. The school needs to identify the E-learning system as an important strategy in education towards a learning society that is not limited in space and time, everyone has conditions to study.

Content of the solution: Complete mechanisms, policies, legal system on E-learning in accordance with the reality for the staff, lecturers and students in the school participating in the training; perfect the mechanisms and policies on the allocation and use of finance in the field

of education. Complete the management documents, guide the exploitation and use of E-learning system.

Doing method:
Planning for organizing the implementation of the E-learning system in training as well as developing supporting policies and general regulations when using the E-learning system
Enhance the importance of online education like traditional education.
Inform all staff, lecturers and students in the whole school about the implementation of documents and regulations when applying E-learning system in teaching.
The school needs to regularly seek and create favorable conditions on the legal and social environment to attract investment from businesses and foreign investors. More important is the cooperation and sharing of experiences from universities in the neighborhood as well as at home and abroad.

Measure 2: Managing the technology infrastructure of E-learning system to meet the needs of users
Meaning:
Ensuring server infrastructure, internet network, qualifications, transmission lines, bandwidth and software systems meet the storage of learning resources, data for teaching and learning.
Ensuring technology infrastructure of E-learning system for safety and stability for training activities.
Ensure the technology infrastructure of E-learning system in terms of quantity, quality, and new technology updates, meet the needs of renewing activities in the direction of modernization and raising the quality of training.
Improve the efficiency of use and increase the efficiency of technology investment in E-learning systems for schools.

Content of the solution:
Manage the effective use of E-learning technology infrastructure.
Manage security, maintenance, and maintenance of hardware and software systems for stable, safe and effective use.
Manage research and development, update new technologies to meet the needs of users (faculty members and students).

Doing method:
Establish regulations on the use of equipment system and usage procedures. For hardware devices, it is necessary to assign managers, regularly monitor the activity log periodically.
Building regulations on maintenance, storage and implementation of system security (information, data). These regulations should be notified to all officials, lecturers and students participating in the system to protect users.
Expanding capacity, memory when needed (according to the number of students and lecturers) to meet the needs of users but also to avoid wasting.
To invest in modern and synchronous technical bases to meet the current requirements of society: high-speed Internet connection, cloud computing, computers, intranet, artificial intelligence software, software for E-learning, website, electronic library, online training system, specialized room.
Promote applied research activities, technology research, teaching facilities and information technology applications in teaching and training management.
Attracting investment capital for E-learning system to meet the learning needs of learners in modern society.

Currently, the E-learning system is often overloaded, so in order to limit this situation, we can arrange and allocate the class time of classes to be extended regularly on weekdays. Or to comply with the function of the E-learning system is to study at all times, the school can open a number of sever servers for each course to minimize this situation.
A server, or server, is a system (suitable computer software and hardware) that meets the requirements on a computer network to provide, or support, the provision of a network service. Servers can run on a dedicated computer, which is also often referred to as a "server", or many networked computers have host capabilities.
In many cases, a computer can provide a wide range of services and services running on it. [3]
When applying this method, the school has its own small server for courses, reducing the number of access at each time is extremely feasible.
On the other hand, investing in this will make the E-learning system run smoother, less likely to cause problems.

Measure 3: Managing the quality of learning materials on diverse E-learning systems, ensuring the quality of technical expertise
Meaning:
E-learning materials are documents that are stored and delivered in electronic form (Electronical) or digital (Digital) that can be processed by electronic computers. [5] They are stored on servers of LAN, WAN,…. With the development of internet communication technology and web technology, teachers and learners can approach and exploit for teaching and learning easily.
Improving the quality of learning materials on content, rich and quality learning materials, regularly upgrading and updating in accordance with the content requirements of the courses at the school.
Improve the quality of knowledge transfer methods as well as the accessibility of learners in a convenient and easy way on computers and electronic devices, facilitating self-study anytime, anywhere.
Learning materials and resources, in addition to meeting the requirements of professional content, must also be designed logically to help learners understand and absorb. Since then, improving the quality of training, helping learners easily access good learning content with convenient learning.

Content of the solution:
Focus on managing the design, deployment of learning material content and building an open learning system for students. This means that not only students who attend the course can search for documents, but also have access to all officials, faculty, and students.
Manage the evaluation, approval, operation and operation of the learning materials system as well as manage the regular review, revision, and regular updating of the learning materials on the system.
Building a system of lecture archives, e-learning materials, and free online sharing for interested students. This sharing helps students studying other resources, not just refer to the course materials posted by the instructor.

Doing method:
The development of learning materials content plan on E-leanring system must be done annually.
Form materials development group / team consisting of capable and qualified officials and lecturers to perform their tasks. Including professional lecturers, content design experts,

content construction experts, and coordinating management staff. In parallel, the school needs to promulgate processes to develop online learning materials.
Creating optimal conditions for lecturers to compile learning materials, providing high quality samples of professors, doctors and practical reports of leading experts.
Organizing contests for electronic lecture design, exchanging experience on E-learning methods at prestigious domestic and foreign training institutions, listening to learners' feedback and promptly complete the lecture.

Measure 4: Manage student support activities and develop a system of supporting documents for students
Meaning:
Students understand the content of the school to support students in the learning process, through the documentation, the management process, and can track the implementation.
Create conditions for students to ensure effective learning activities, overcome the gap between learners and teachers when they participate in online learning.
Improve the quality and effectiveness of teaching and learning in an online environment.

Content of the solution:
Draft content that has not yet developed a student support process as well as a process.
Developing student-supported content from the time the student registers to complete the course.
Manage student support staff to meet the requirements of organization and manage the E-learning system as well as student support activities according to the issued process.
Conduct to checking, doing the survey periodically to take student's opinions to support the remedial measures in time.

Doing method:
Identify student support activities (content and requirements).
Survey the status of online learning activities of students periodically.
Regularly check the feedback and requests of students on the system when participating in study so that they can be answered and supported promptly.
Organize and assign student support teams.
Guide to Onlineizing the school including Online teaching and Online management, operational management and support for lecturers and students.

Measure 5: Improve the awareness and expertise of management staff and lecturers of the importance of online training
Meaning:
To make managers and lecturers aware of the role of online training in the contemporary society and the development trend of online training systems so that they can grasp the advantages and the limitations of the online education system.
To build and develop the teaching staff as long as maintain the sufficient quantity and improve in quality, meet the requirements in the professional qualifications, the methods and the skills in teaching in the online education system.
Improving the quality of online education to meet the needs of learners and the needs of the developing society.

Content of the solution:
Identify the needs of faculty members that meet the scale and the requirements of training.

Plan to recruit lecturers that based on the demand, and do the survey on the current number, structure and capacity of lecturers.
Organizing training, retraining, improving the knowledge for current lecturers and recruiting new lecturers to meet the necessary requirements in order to carry out the high quality online teaching activities.
Manage and supervise the implementation of online teaching activities of lecturers.

Doing method:
Make plans to organize training courses for staffs and lecturers that help them to learn about the whole method of using and manipulating E-learning system.
Organize the certain training sessions for each type of audience: education managers, system administrators, lecturers, and students to clearly understand about the E-learning system. The role of lecturers will be very important when applying the E-learning system to education.
Lecturers not only need to grasp the new learning method, but also be the one who actively prepare the lessons to post to the system, composing types of exercises for teaching as well as for self-study student.
Therefore, it is necessary to exchange experiences in using new technologies for teaching staff who meet the most modern teaching requirements such as having the skills to apply IT in teaching, designing good-quality electronic lessons. above is capable of self-study, self-scientific research.
Send staff to attend seminars, conferences or study tours with universities with online training aiming to exchange, learn and update the general development situation as well as learn from successful experiences in the field of online education.
It is necessary to strengthen the E-learning management team in terms of quantity and quality, especially it is necessary to foster the qualifications of administrators so that not only can they operate well, handle them promptly in case of an incident, but also must have the Long-term strategy to develop, expand the scope and application of E-learning system in teaching, learning and educational management.
In the process of approaching the Industrial Revolution 4.0, it is necessary to make the most of information technology in lesson design and lecture delivery. Along with that is a radical innovation in the form and method of examination and examination in the direction of meeting students' work ability and creativity.

CONCLUSIONS

In the context of fundamental and comprehensive renovation of Vietnamese education, E-learning is a common trend that all educational institutions are aiming for. The method of online training is far different from the traditional method of study. From the input, the process of teaching and learning to its output.

When applying the E-learning system to learning, learners can participate in learning flexibly, anytime, anywhere without limits. And most importantly, when participating in online learning, learners are the central object of the educational process.

However, in order to promote the advantages and training methods, it requires the conditions of IT infrastructure, learning system, teaching staff, administrators and human resources to support the group activities. The organization and service of training, the system of documents, regulations and instructions must be in sync.

The implementation of E-learning system at Thu Dau Mot University has been promoted, but the management model is still small and has not really invested in this system.

Results of a survey on the state of online learning activities of students of Thu Dau Mot University show that the status of online learning of students only rank from average to fair. This also shows us the E-learning system has some inadequacies and they need to be solved in time.

Therefore, the school needs to regularly upgrade its system, infrastructure as well as deploy online learning and teaching issues for its teachers and students to improve the quality of teaching and learning at school.

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