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IS THE APPLICATION OF E-LEARNING IN INDONESIA EFFECTIVE?

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Abstract
This study aims to determine the effectiveness of learning management systems in the learning process in Indonesia. Conventional learning methods that have been applied are analyzed for their effectiveness and compared with the use of the e-learning method. Qualitative research approaches with classroom action data analysis techniques combined with literature studies are used as research methods. The results of the study inform that conventional learning methods have limitations in the classroom learning process between educators and students, so the results of the analysis are less effective. The e-learning approach that makes students as subjects is proven to be able to improve the effectiveness of the learning process. However, the support of equipment, human resources and information technology which is the main requirement in the implementation of e-learning is a consideration in its development.

Keywords: Management education, effective, learning management system and e-learning.

Introduction
With the development of an era that requires all aspects of life to depend on technology and information, learning methods also shift from conventional methods that require teachers and students to face directly in a room, becoming a digital method that uses electronic devices and networks to help learning between teachers and students. This digital learning method is often also referred to as e-learning (Gupta, et al. 2016). According to Herman, et al. (2012) said that e-learning is a learning method that uses electronic applications to support the teaching-learning process with internet media, computer networks, and standalone computers (computers that are not connected to other computers) with the use of this electronic device, the e-learning method began to be widely used by several schools and colleges.

Broadly speaking, e-learning can cover learning both formally and informally (Dwiyedi, et al. 2015). Formally the e-learning method is carried out using learning that originates from the syllabus, learning implementation plans (RPP) and lecture program units (SAP) that have been made by teachers and students. While informally e-learning methods use other electronic devices such as the use of mailing lists or e-mail and also learning blogs such as the economist student's blog. Problems the development of science and technology that is growing rapidly today has been influential in all fields of human life. Computers and the internet as examples of means to facilitate activities are not new. Computers and the internet are needed in the presentation of information lately. The use of computer technology is one of the most effective ways to deliver material. Submission of material through a computer can be interactive so that learning participants are able to interact with computers as learning media. As one example of students who use electronic media learning or establish relationships (browsing, chatting, video call) through electronic media, in this case computers and the internet will later obtain learning outcomes that are more effective and good than conventional learning (Herman, et al. 2012).

Education is one way to grow one's abilities, will and potential. With education, people can become more understanding and responsive to changes and the development of science and technology. National education functions to develop the ability and form the character and civilization of a nation that is dignified in order to educate the life of the nation, aims to develop the potential of students to become believers and devoted to God Almighty, noble, healthy, knowledgeable, capable, creative, independent and become a democratic and responsible citizen (National Law No. 2, Year 2003). The use of learning media in the teaching and learning process is one of the efforts to improve the effectiveness and quality of the learning process which ultimately can

improve the quality of student learning outcomes (Dwiyedi, et al. 2015). The use of instructional media in the teaching and learning process has several benefits including: (1) Teaching will attract more students' attention so as to foster student learning motivation, (2) Teaching materials will be clearer so that students can understand and the teaching objectives well, (3) Teaching methods will be more varied, (4) Students will interact more in learning activities because they not only listen to the teacher's explanation but also other activities such as observing and demonstrating.

By using conventional methods students feel as a monotonous or boring method so that the students' interest in paying attention to the lesson is reduced. It is also results in student achievement which tends to decrease or even no increase. In teaching and learning activities a teacher must use appropriate learning methods so that learning objectives can be achieved (Kim, et al. 2013). The use of appropriate learning methods if there is a match between the material, the readiness of the teacher in teaching, the condition of students and the creativity of students. The effectiveness of the use of methods can occur if there is a match between the methods and all components of teaching that have been programmed in the unit of learning as written preparation. Computer and internet learning media that are dynamic are very supportive if used in the learning process, because they have the ability to explain material better. The learning media can be loaded with a lot of theoretical, practical and original material in text or visual form that can provide direct experience to students (Kim, et al. 2013).

The use of computers and the internet in the teaching and learning process is expected to reduce obstacles that are often experienced by teachers or students in the teaching and learning process at the classroom or independently. Some of the benefits obtained when using computers and the internet as a learning medium include: (1) Teaching will attract more students' attention so that they can motivate learning, (2) Teaching methods will be more varied, not merely verbal communication by teachers so students do not bored, (3) Students do more learning activities because they not only listen to the teacher's description but also other activities such as observing, doing and demonstrating (4) The quality of student learning can be improved because it helps students absorb the learning material in more depth so that it can improve student learning achievement , (5) The role of the teacher can change in a more positive and productive direction. In the process e-learning as a media distance learning creates a new paradigm when compared to conventional education (Lee, et al. 2013). With the use of e-learning the teacher will play a role as a facilitator and students as active participants in the teaching and learning process. Teachers are required to be able to create good teaching techniques, presenting interesting teaching materials while students are required to actively participate in the learning process. It is expected that through this e-learning media is able to present interactive learning material so that students do not experience boredom in learning activities and the material delivered can be delivered more effectively (Rodriguez, et al. 2013) and (Wan, et al. 2012).

Literature review

Effectiveness
Understanding effectiveness, according to Rodriguez, et al. (2013) effectiveness is a measure that states how far the target (quantity, quality and time) has been achieved. The greater percentage of targets achieved will impact the higher of the effectiveness. Sorgenfrei & Smolnik, (2016) explain that effectiveness is the ability to choose the right goals or the right equipment for achieving the goals set. The effectiveness of the level of ability is to achieve goals correctly and well (Upadhyaya&Mallik, 2013). Wan, et al. (2012) explains that effectiveness is the reach of a program's business as a system with certain resources and means to fulfill its goals and objectives without paralyzing the methods and resources and without putting unnatural pressure on its implementation. In learning, careful planning is needed, making learning tools, choosing strategies, media, techniques, learning models, and evaluating learning that are all mutually sustainable. The need for the use of effective and innovative learning models so that learning can be varied and run smoothly. The use of the learning model is also adjusted to the material to be taught so that the compatibility between the two and all components becomes effective.

Variations in teaching methods become effective characteristics of teaching teachers. Professional teachers are characterized by mastering a number of methods and being able to apply them. The new work is perfectly declared effective if proven to facilitate students learning to master the expected competencies. One indicator of learning effectiveness is the level of achievement of learning objectives. Learning objectives are achieved optimally so

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that learning can be said to be effective. In addition, student involvement actively demonstrates learning efficiency. The teaching and learning process is said to be effective if the learning can achieve the expected goals and students can absorb the subject matter and practice it.

Learning methods and strategies are now experiencing a shift by leading to a change in the education paradigm. It is affects the function of educators as facilitators, mediators and motivators in the learning process. Teachers are always regarded as the center of learning, but now they have become students as learning itself. One of the causes, among others, is the factor of the rapid progress of information technology that requires a change in the learning process paradigm that is carried out by all students. Students are required to have good mastery of information and communication technology (ICT), so students can follow the development of science that moves very fast (Wan, et al. 2012). The above terms, it can be concluded that effectiveness is the ability to achieve goals that have been set properly and use the right equipment.

Effectiveness indicator
Learning Measurement of learning effectiveness must always be associated with the achievement of learning objectives. Indicators that can be used to determine the effectiveness of learning, namely: (1). Accurate mastery of behavior, (2). Speed of performance, (3). Compliance with procedures, (4). Quantity of performance, (5) Quality of final results, (6) Level of learning transfer, and (7) retention rate. Learning effectiveness is measured through the ratio between effectiveness and the amount of time spent by students and the amount of learning costs and learning resources used. Thus there are three indicators to determine the level of effectiveness, namely: (1) Time, (2) Personnel, and (3) Learning resources. The quality of learning is always related to the use of optimal learning methods to achieve learning goals, under certain learning conditions. This means that in order to achieve high learning quality, the field of study must be organized with the right organizing strategies, then delivered to students with the right delivery strategies. Important variables that can be used as indicators of learning attractiveness are rewards and desires for more that are shown by students. Both of these indicators can be related in the field of study and learning.

Sorgenfrei & Smolnik, (2016) states that there are four criteria used in determining the effectiveness of learning
1) Accuracy of mastery, the more closely students increasingly master the behavior learned, the more effective learning that has been carried out.
2) The level of accuracy can be indicated by the number of errors in solving the problem. Performance speed of the amount of time needed to solve a particular problem. In this case, the performance can be used as an indicator to determine the effectiveness of learning.
3) Learning transfer level, the ability of students to improve learning from what has been mastered and then move on to other similar things.
4) Retention rate, the level of ability to solve problems that are still able to be displayed after a certain period of time.

Rodriguez, et al. (2013) states that there are several strategies in teaching and learning to make learning more effective, namely:
a. Utilizing education technology more effectively, both with regard to the use of instructional media and those relating to computer use in instructional systems.
b. Based on experience, utilizing a variety of modular forms that provide opportunities for students to learn more independently.
c. Give students the opportunity to solve their own problems,
d. Allow students to be the center of activity.
e. Focusing on mastering the learning material thoroughly.
f. Utilize the teacher as an education team responsible for guiding a group of students.
g. Consider and lean on groups of students who are considered to have a dynamic nature so that teaching does not only show aspects of knowledge and skills.

Based on the description mentioned above, it can be concluded that the indicators of learning effectiveness are (1) accuracy in mastering behavior, (2) speed of performance or time required, (3) compliance with procedures or

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steps, (4) quantity of performance, (5) quality of the end result, (6) level of ability in solving problems, (7) personnel and (8) learning resources.

E-learning

Study material that can be obtained for free in the form of files that can be downloaded. While the interaction between visitors both students and teachers can be done in the form of discussion forums or e-mail (Dwiyedi, et al. 2015). According to Gupta, et al (2016) e-learning as any teaching and learning that uses electronic circuits (LAN, WAN, or internet) to convey the contents of learning, interaction, or guidance. Herman, et al. (2012) explains that E-learning is a type of teaching and learning that allows the delivery of teaching materials to students using internet, intranet or other computer network media. Kim, et al. (2013) emphasizes that e-learning refers to the use of internet technology to send a series of solutions that can improve knowledge and skills. Lee, et al. (2013) describes the e-learning philosophy as follows:

E-learning is the delivery of information, communication, education, online training, (b) E-learning provides a set of tools that can enrich the value of conventional learning so as to answer the challenges of the development of globalization, (c) E-learning does not mean replacing conventional learning models in the classroom, but strengthening the learning model through content enrichment and educational technology development, (d) the capacity of students varies greatly depending on the form of the content and the way it is delivered. The better the harmony between content and delivery tools with learning styles, the better the capacity of students which in turn will give better results. E-learning is used as a delivery of learning material through electronic media or the internet so students can access it anytime from all corners of the world.

E-learning has shortened learning time and made study costs more economical. E-learning facilitates interaction between learners with material or subject matter, students with teachers or instructors and fellow students. Students can share information and can access learning materials at all times and over and over again, with such conditions that students can strengthen their mastery of learning material. In e-learning, those who take on the role of teacher are computers and electronic guides designed by "contents writers", e-learning designers and computer programmers. Basically the concept of E-learning is the provision of new classes' equivalent to conventional classes in schools that have existed so far. The construction of a virtual educational institution such as e-learning must provide results that are more or less the same as the ideals of establishing a conventional educational institution. This e-learning system is adapted from systems in conventional schools into a digital system (Martinez, et al. 2015).

Through the use of e-learning, there will be some considerable benefits compared to conventional school development efforts. The most obvious advantage is financial gain. This advantage is derived from the reduced costs needed to implement the system as a whole when compared to the cost of building a school building along with all its equipment and teachers (Mittal, 2015). Another advantage is the side of time efficiency in the teaching and learning process. With the e-learning, the teachers or instructors will be easier: (1) Updating learning materials that are their responsibilities in accordance with the demands of cutting-edge scientific development, (2) Developing themselves or conducting research to improve their insights, (3) Controlling learning activities of students. The presence of teachers as living beings who can interact directly with students has disappeared from electronic e-learning spaces. This is the characteristic of the lack of good e-learning. As the origin of the word from e-learning consists of e (electronic) and learning (learning), then this system has advantages and disadvantages. Based on the description above, it can be concluded that: (1) e-learning is a type of teaching and learning that allows the delivery of teaching materials to students using electronic circuits (LAN, WAN, or internet) to convey learning content, interaction, or guidance, (2) e-learning can be used as a medium of distance learning and also a conventional education system that functions to strengthen conventional learning models (Paulin & Haythornthwaite, 2016).

Instructional Media

Learning is a complex process that happens to everyone. One sign that someone has learned is the 17 changes in attitudes or behavior in that person that may be caused by changes in the level of knowledge, skills or attitude. Therefore learning can occur anywhere and anytime .According to McCurcheon, (2014) learning is any change

that is relatively settled in behavior, which occurs as a result of an exercise or experience. Learning is the result of the interaction between stimulus and response (Naresh, et al. 2016). Someone is considered to have learned something if it can show changes in behavior. According to this theory in learning the important thing is input in the form of stimulus and output in the form of response. Stimulus is what the teacher gives to students, while the response is in the form of reactions or responses from students to the stimulus given by the teacher (Wu & Zhang, 2014). The process that occurs between stimulus and response is not important to note because it cannot be observed and cannot be measured. Stimulus and response can be observed, therefore what is given by the teacher (stimulus) and what is received by students (response) must be observed and measured.

Naresh, et al. (2016) proposed nine criteria for assessing the effectiveness of a learning medium. The first criteria is cost. Costs must be assessed by the results that will be achieved with the use of the media. Other criteria are the availability of supporting facilities such as electricity, compatibility with class size, brevity, ability to be changed, time and energy of preparation, the effect caused, complexity and the latter are uses. The more learning goals that can be helped by a media, the better the media. These criteria are more for conventional media. According to Mittal, (2015) proposed six criteria for assessing interactive multimedia, among others: (1) ease of navigation, a program must be designed as simple as possible so that language learners do not need to learn computer first, (2) content of cognition, (3) knowledge and presentation of information , these two criteria are to assess the content of the program itself, (4) media integration, where the media must integrate the language aspects and skills that must be learned, (5) aesthetics, to attract students' interest the program must have an artistic appearance then aesthetics is a criterion, (6) Overall function. The program developed must provide the learning desired by the learner. So that when a person finishes a program he will feel he has learned something. Based on the description above, it can be concluded that learning media is a means of communication in the form of print or audio visual media that is used to spread ideas, ideas or opinions so that ideas or opinions can reach the recipient. In this condition, the idea or idea will not run without assistance means of delivering messages or media (Ilic & Jovanovic, 2012).

According to Dwiyedi, et al. (2015) there is six steps that can be taken by the teacher when teaching using the media, namely: 1) Formulating teaching objectives using learning media. 2) Preparation of teachers is to choose and define learning media that will be used to achieve the goals. Class preparation, the teacher must be able to motivate students to be able to assess, anticipate, and live the lesson by using learning media. 4) Presentation of learning and use of learning media. In this step the teacher presents lesson material using learning media. 5) Student learning activities. This step, students learn using learning media. 6) Evaluation of teaching, in this step learning activities are evaluated, to what extent the teaching objectives are achieved, as well as the extent to which the influence of learning media as a tool can support the success of the student learning process (Imran & Naushad, 2014).

Research method
This study uses qualitative research methods that combine descriptive qualitative data analysis sourced from literature review with class action analysis methods.
Detail the implementation of this classroom action research includes the following steps:
Cycle begin with the creation of participatory collaborative learning devices between the teacher and the researcher, then plan the implementation of learning activities by using the demonstration method, so that the teacher is efficient and effective needs to pay attention to the following:
a. Planning the steps that must be carried out in the planning stage by the researcher and the teacher are to prepare learning tools. Proceed to prepare test and non-test instruments. The test instrument is in the form of performance tests and assessment. Non-test instruments in the form of observation guide sheets to observe student activity and teacher performance in the learning process.
b. Implementation of the planned plan. The initial activity of the teacher is to understand the characteristics of students and how to learn students in applying the demonstration method.
c. Observation and evaluation are carried out by colleagues as collaborator partners who function as assessors of student learning activities and teacher performance. The collaborator records all activities carried out by the teacher and students during learning, i.e. starting from the initial activities to the final activity. Observation of learning activities is carried out during implementation to find out the course of the learning process

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d. Reflections during the research were carried out, the results were analyzed and reviewed their successes and failures. Then the results of the reflection of the researchers were synthesized by a literature review to determine the effectiveness of e-learning learning when compared with conventional learning.
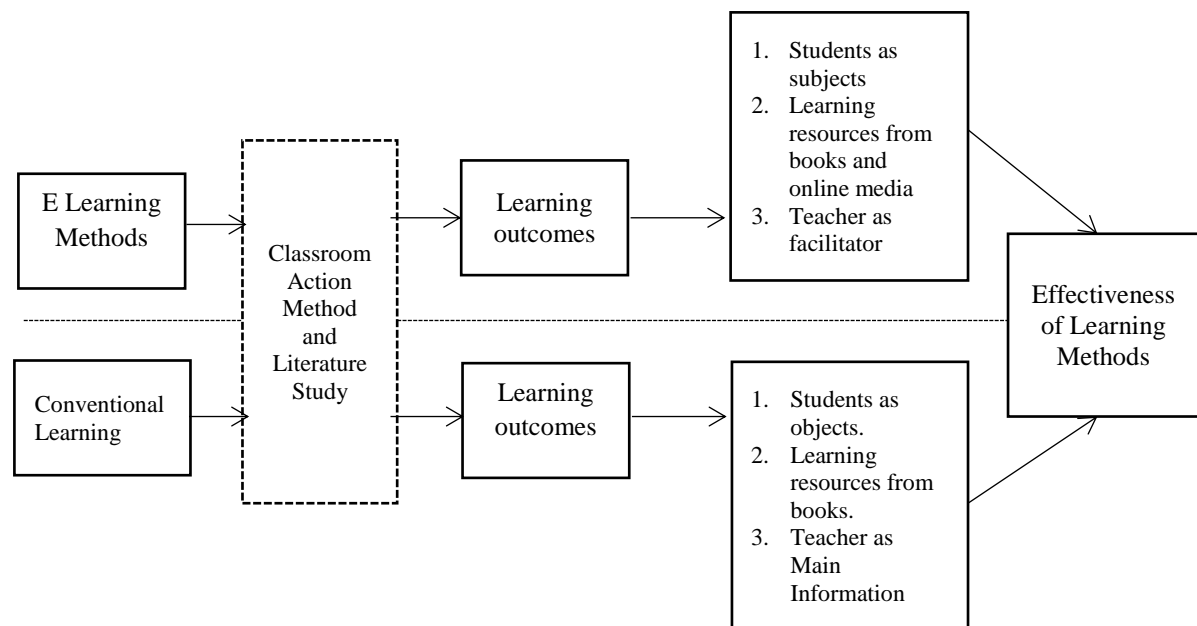

Figure 1. Research Framework

Results and discussion

Evaluation of the Effectiveness of Conventional Learning

Conventional learning is the learning done by the teacher so far that the teacher provides theories, examples of questions and exercises or homework (Ilic&Jovanovic, 2012). The teacher acts as a source of knowledge and learning center. Conventional learning model is a model used by teachers in daily learning by using a general model, even without adjusting the right model based on the nature and characteristics of the learning material studied. Conventional learning class atmosphere tend to be teacher-centered so students become passive, students are not taught learning models that can understand how to learn, think and motivate themselves. Conventional learning has the characteristics of: (1) not contextual, (2) not challenging, (3) passive, and (4) the learning material is not discussed with the learner. The results of this study found that conventional, traditional or partial learning is learning that divides teaching materials into small units and the presentation of teaching material between one separate material and another, between phonemes, morphemes, words, and sentences not linked between one with each other each subject matter stands alone as a field of science, including its assessment system.

The teaching centre learning process has made the teacher dominates more. For countries that is still developing like Indonesia, conventional learning is not so demanding that adequate facilities and infrastructure are more likely to be implemented. The subject matter presented can be classical so it does not require high costs. Learners by themselves can apply theories acquired in the classroom in everyday life. This is a human nature to adapt to the environment. The results also found that conventional learning emphasizes content recitation, without giving students enough time to reflect on the material presented, connect it to previous knowledge, or apply it to real life situations. The results of the reflection of the synthesis of research prove that conventional model learning is less effective because: learning is teacher-centered and passive learning occurs, students only write, record and memorize so that interaction between students is less which causes students to be less creative and understanding,

learning of science easily forgotten. Conventional learning methods also have the potential to grow groups that are less cooperative, and assessments are sporadic.

E-Learning Effectiveness Evaluation
The results of this study inform that e-learning is a learning method that is perceived to be based on student centered, namely the learning method that is focused on the activeness and independence of students in understanding the material being taught (Rodriguez, et al. 2013). E-learning based on student centered will make students build their own knowledge so that they easily understand the material presented with their own understanding. From the application of e-learning it will also have an impact on the learning process between teachers and students. Positive impact for teachers, e-learning can make teachers able to control their students through assignments provided through the internet. In addition, teachers can develop learning material from anywhere, so that the material taught will expand and be detailed. Another benefit is that teachers will not have difficulties in learning because the material to be taught has been updated on electronic devices that students have already known. In this condition the results of this study prove that teachers can find the best method in the learning process. However, the results of this study also inform that the e-learning method can cause teachers to be less attentive to their students because the material taught already exists in e-learning. Teachers will reduce their role as educators so that the embedded moral values will decrease and the value of competition will increase.

Unlike the benefits and effectiveness for teachers, the effectiveness for students is e-learning can make students save time in obtaining the material taught? Students can easily get the material without limiting the conditions of the place so they don't have to have trouble finding material to fulfill their duties (Sorgenfrei&Smolnik, 2016). In addition, e-learning can also help students when they are not present in class, because the material taught can be accessed wherever and whenever they are, without having to be fixated on the material taught in class. E-learning can indeed help students to complete the assignments given. On the other hand, the quality of the assignment will be reduced because more is produced from copy-pasting the material that was before. In addition, for students who are less motivated will be lazy to open the e-learning material that has been given by the instructor, so they will be far behind the subject matter.

E-Learning as stated above is very helpful both for teachers in providing learning material, as well as for students in learning the material being taught. The existence of e-learning is considered very important in supporting the lack of subject matter at a certain time, for example when a dispensation student represents his school in a particular event. Because of the busyness of training so that it sacrifices time to study, the student will miss the subject matter. For this reason e-learning can be an alternative to catch up with material that is left behind because of busy workouts. E-learning can be effective if there is collaboration between the teacher and students to succeed, without one of them the existence of e-learning will not run smoothly (Upadhyaya & Mallik, 2013). That is why close communication is needed between the two. Apart from that, the effectiveness of e-learning is also supported by the expertise and creativity of teachers in preparing the material to be delivered. This also includes teaching skills in operating electronic devices. Sometimes e-learning is also a burden for teachers who have not mastered the operation of electronic devices.

Learning Process Efficiency Using E-Learning
To get a thing is needed a fee to get it, just as in the learning process. The e-learning method can reduce the costs that will be incurred during the learning process, for example in the process of working on tasks. Usually in doing assignments students are required to do it in Hardcopy by printing the assignment. However, with e-learning, the task can be sent in the form of softcopy by sending via e-mail. This certainly can reduce the cost of making assignments.

Existence of E-Learning in Remote Areas
The results of this study also want to convey information that the effectiveness of using e-learning must also be able to be felt by wider users. The learning process in e-learning must be evenly distributed in all regions, including

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remote areas. The lack of access to information and the environment can be an obstacle to even distribution of e-learning in remote areas. There are many problems that make e-learning difficult to reach remote areas, including:

a. Difficult access to the road to school. Access roads to schools in some remote areas those are difficult to reach due to heavy terrain. The effectiveness of e-learning in remote schools is difficult to realize.

b. In adequate electricity network. Many remote areas that have not been electrified have made e-learning difficult to do, because the e-learning process must use electricity.

c. Human resources (teachers and students) who do not understand the use of e-learning. Teachers in remote areas have not understood the use of electronic devices that support e-learning. This may be due to lack of access to information and training provided. To overcome this problem, the government has launched access to the sub district internet that is spread in various remote areas, the goal is internet access can be used by the community. Although this program has not been very effective in reaching certain communities, the public interest in obtaining internal information is very high. This of course can be used in e-learning embryos in remote areas.

d. E-learning can be effective if there is cooperation between teachers and students to succeed, without one of them the existence of e-learning will not run smoothly. That is why close communication is needed between the two. Apart from that, the effectiveness of e-learning is also supported by the expertise and creativity of teachers in preparing the material to be delivered. This also includes teaching skills in operating electronic devices.

e. An effective e-learning program starts with planning and focuses on the needs of the learning material and the needs of students. The right technology can only be selected when these elements are understood in detail. In fact, the success of e-learning programs relates to consistent and integrated efforts from students, faculty, facilitators, support staff, and administrators.

f. College student. In relation to the educational context, the main role of students is to learn successfully, is an important task, so it needs to be supported by good environmental conditions, and requires motivation, planning and the ability to analyze using the best instructions or modules. When instruction is delivered at a certain distance, it creates additional challenges because students are often separated from background together and other interests, have few opportunities to interact with lecturers outside the classroom, and must rely on technical relationships to bridge the gap between students in the classroom.

g. University. The success of all e-learning businesses depends also on the responsibilities of the institution or university. The faculty is responsible for understanding the material and developing the understanding according to the needs of the students.

h. Facilitator. The faculty feels more efficient when dealing with local facilitators who act as bridges between students and faculties. To be more effective, a facilitator must understand the needs of the students being served and the expectations that the faculty wants. More importantly, the facilitator must follow the directions that have been determined by the faculty. They need to prepare equipment, collect student assignments, conduct tests, and act as local instructors.

i. Supporting staff. The feasibility of e-learning program success is also related to supporting service functions such as student registration, multiplication and delivery of lecture materials, ordering textbooks, copyright guarding, scheduling, report processing, technical resource management, etc. Supporting staff is a primary need to create conditions, so e-learning remains on the right track.

j. Administrator. Although administrators usually participate in planning an e-learning program, they often lose contact with the technical manager when the program is operating. Effective e-learning administrators not only provide ideas, but also need to work together and make consensus with builders, decision makers, and supervisors. They must cooperate with technical personnel and support staff, ensuring that technological resources need to be developed effectively for the purposes of future academic missions.

More importantly, in managing an academic, it is necessary to realize that the needs and success of e-learning students are the main responsibility. Sometimes e-learning is also a burden for teachers who have not mastered the operation of electronic devices. To overcome this problem, many related educational institutions conduct training for teachers who have not mastered the operation of electronic devices, especially for remote areas. In

addition to these steps, instructors can use social networking sites to exchange ideas about their teaching experiences

Conclusions and suggestions

The success of e-learning is supported by the maximum interaction between lecturers and students, between students and various educational facilities, between students and other students, and the existence of active learning patterns in these interactions. If learning is based on the web, it is necessary to have a center for student activities, interaction between groups, system support administration, deepening of material, examinations, digital libraries, and online materials. In terms of information technology, the world of the internet allows a total overhaul of learning concepts that have been valid. The results of this study inform that e-learning is a learning method that is very effective compared to conventional learning methods. E-learning has many benefits that are very important for the learning process, not apart from the negative impacts. As an e-learning user, it is appropriate that we can minimize the adverse effects. That is not less important is the distribution of e-learning in remote areas hopefully e-learning can be utilized by various groups of society, not only in urban areas, but also can be enjoyed in remote areas. With the development of increasingly sophisticated science and technology, it is certainly very easy for us to exchange information through internet media especially with the e-learning learning program, so it is hoped that students can use this e-learning program well.

References

[1]   Dwivedi, Pragya; Bharadwaj, Kamal K. 2015.e-Learning recommender system for a group of learners based on the unified learner profile approach.Expert Systems. Vol. 32 Issue 2, p264-276.
[2]   Gupta, Saurabh; Bostrom, Robert. 2016. An Investigation of the Appropriation of Technology-Mediated Training Methods Incorporating Enactive and Collaborative Learning.Information Systems Research. Vol. 24 Issue 2, p454-469.
[3]   Heman-Henry, Calaine; Greene, Carolyn M.; Koppaka, Ram. 2012. Integrating Public Health–Oriented E-Learning into Graduate Medical Education. American Journal of Public Health.Vol. 102, p353-356.
[4]   Ilić, Biljana; Jovanović, Violeta. 2012. Strategy of Reducing Expenses by Introducing E-Learning in University-Level Education Institutions. Serbian Journal of Management.2012, Vol. 7 Issue 1, p131-148.
[5]   Imran, S. M.; M., Naushad Ali P. 2014. E-learning Strategies for Imparting LIS Education in India: A Pragmatic Perspective of Faculty Members.Trends in Information Management., Vol. 10 Issue 1, p23-38.
[6]   Kim, Soohwan; Kim, Hyeoncheol; Han, Seonkwan. 2013. A development of learning widget on m-learning and e-learning environments. Behaviour& Information Technology, Vol. 32 Issue 2, p190-202.
[7]   Lee, Yi-Hsuan; Hsieh, Yi-Chuan; Chen, Yen-Hsun. 2013. An investigation of employees' use of e-learning systems: applying the technology acceptance model.Behaviour& Information Technology. Vol. 32 Issue 2, p173-189.
[8]   Martínez-Caro, Eva; Cegarra-Navarro, Juan Gabriel; Cepeda-Carrión, Gabriel. 2015. An application of the performance-evaluation model for e-learning quality in higher education. Total Quality Management & Business Excellence. Vol. 26 Issue 5/6, p632-647.
[9]   Mittal, Sanjiv. 2015. Evaluating the benefits of E-learning Systems as perceived by School Teachers in India: An SEM approach.Management Edge. Vol. 8 Issue 1, p1-12.
[10]   McCutcheon, Karen. 2014. A Leadership Framework to Support the Use of E-Learning Resources. Nursing Management, Vol. 21 Issue 3, p24-28.
[11]   Naresh, B.; Sree Reddy, D. Bhanu; Pricilda, Uma. 2016. A Study on the Relationship between Demographic Factor and e-Learning Readiness among Students in Higher Education.Global Management Review. Vol. 10 Issue 4, p1-11.
[12]   Paulin, Drew; Haythornthwaite, Caroline. 2016. Crowdsourcing the curriculum: Redefining e-learning practices through peer-generated approaches.Information Society, Vol. 32 Issue 2, p130-142.
[13]   Rodriguez, Brenda Cecilia Padilla; Armellini, Alejandro. 2013. Interaction and effectiveness of corporate e-learning programmes. Human Resource Development International. Vol. 16 Issue 4, p480-489.
[14]   Sorgenfrei, Christian; Smolnik, Stefan. 2016. The Effectiveness of E-Learning Systems: A Review of the Empirical Literature on Learner Control.Decision Sciences Journal of Innovative Education. Vol. 14 Issue 2, p154-184

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[15] Upadhyaya, K. T.; Mallik, Debasis.2013. E-Learning as a Socio-Technical System: An Insight into Factors Influencing its Effectiveness. Business Perspectives & Research., Vol. 2 Issue 1, p1-12. 12p.

[16] Wan, Zeying; Compeau, Deborah; Haggerty, Nicole. 2012The Effects of Self-Regulated Learning Processes on E-Learning Outcomes in Organizational Settings. Journal of Management Information Systems. Vol. 29 Issue 1, p307-340.

[17] Wu, Bing; Zhang, Chenyan. 2014. Empirical study on continuance intentions towards E-Learning 2.0 systems.Behaviour& Information Technology. Vol. 33 Issue 10, p1027-1038.