

Challenges in Implementing E-Learning in the Language Education Context: Case Study at an English Education Department in Indonesia

Endro Dwi Hatmanto
English Language Education Department
Universitas Muhammadiyah Yogyakarta
 Yogyakarta, Indonesia
 endrodwi@muh.ac.id

Eko Purwanti
English Language Education Department
Universitas Muhammadiyah Yogyakarta
 Yogyakarta, Indonesia
 ekopurwanti@umy.ac.id

Abstract—At present, the world of education including the sector of English language teaching, has been witnessing the massive development of information technology and using it as a means of improving the effectiveness of the teaching and learning process. Studies confirm that e-learning improves students' learning achievement. However, despite several benefits offered by e-learning, many lecturers and students still encounter obstacles and difficulties. This research aimed to explore the challenges faced by English education lecturers and students at an English Education Department in a private university in Yogyakarta in using e-learning. This study used a qualitative method. Case study was employed as a strategy of inquiry. Five lecturers and 20 students were recruited as research participants. The interview was deployed as a strategy to collect data from the lecturers and focus group discussions would be utilized to gather information from students. In addition to interviews and focus group discussions, this research also employed document analysis as the strategy to collect the data. The data revealed that the challenges faced by lecturers and students of English education department in implementing learning included cognitive, metacognitive as well as learning styles and preferences challenges. Several strategies to overcome the challenges in the e-learning implementation were proposed by the participants, namely rehearsal, selection, rehearsal and comprehension, learning plan, preparation, evaluation, goal setting, self-management, time management, self-evaluation and synchronous online learning.

Keywords—*e-learning, English language Teaching, information technology*

I. INTRODUCTION

The accelerated development of information technology today has changed the teaching and learning process. The speed of change driven by information technology requires a new paradigm related to developing learning resources, acquiring knowledge and developing skills. The presence of information technology and the internet era has also transformed the way knowledge is taught. E-learning is one of the strategies developed to face these changes and demands.

According to T. Shopova [1], at present an important element in education is online learning and this learning model offers unique advantages in the teaching and learning process. Even the shift from face to face classes to online learning has occurred in many countries. As Y. Vovides, S.

Sanchez-Alonso, V. Mitropoulou, and G Nickmans [2] pointed out that this transformation has happened in all fields of education, including in English language teaching. Online learning allows a student-centered learning model because students have the authority to regulate their learning speed. In addition, learning activities are found to be compatible with student learning style, hence making this learning very flexible [3]. Harasim, Calvert and Groeneboer [4] found that students had more opportunities to engage in discussions, expressing their ideas and sharing knowledge more intensively without the boundary of time and place given the provision of online learning applications and software. In fact, opportunities for more active learning can be increased through online learning [5].

Although online learning offers many benefits, according to M. J. Tsai [6], students can face difficulties that are not experienced in face-to-face learning and this can worsen their learning achievement. Based on the researcher's experience as the reviewer of the e-learning implementation among lecturers at a private university in Yogyakarta, several lecturers failed in developing various learning activities. Several others managed quizzes, but still emphasizing the rote learning. In addition to practical problems in the e-learning application encountered by lecturers, research on the e-learning in the context of English teaching in Indonesian higher education is still rare. Two research questions are raised in this research: first, "what are the challenges faced by students in implementing e-learning?"; second, "what are the strategies taken by students and lecturers to overcome challenges in implementing e-learning?" This paper aims to explore the challenges of the e-learning implementation faced by students in English education department at a private university in Indonesia and to find strategies used by students and lecturers to overcome the challenges in implementing e-learning.

II. LITERATURE REVIEW

The accelerated development of information and communication technology or ICT has revolutionized the ways students learn. In fact, shifted paradigm concerning the acquisition of knowledge and skills and the development of resources are required. The emergence of ICT and internet has led to a new way in how knowledge is disseminated. This has become a trigger for the e-learning development.

A. E-learning

Literature discusses E-learning in different ways. Generally, e-learning refers to a term that is widely used to describe learning experiences or learning content activated by electronic technology [7]. Some other definitions of e-learning are more rigid than this, such as restricting e-learning only as sending content over the internet [8]. This article uses a broader definition of e-learning not only for content delivery but also for interactions between participants through the use of the internet, intranet, interactive TV, audio and video recording, satellite broadcasting, and CD ROM. Today, the notion of e-learning has been expanded to include cellular phone and wireless learning applications.

Generally, content for e-learning is usually in an electronic format and stored on a server or CD ROM. E-learning content can be accessed by students directly from a standalone computer or server through a networked computer. The contents of e-learning are usually interactive and interesting and virtually the instructor supports students. To improve the effectiveness of the learning process, currently e-learning is adopted by a growing number of educational institutions and universities. Technological progress is expected to further develop the concept of e-learning.

Specifically, the e-learning formats can be divided into two types, namely classes using lecture capture and courses using learning management system [7]. The former is technology that records lectures in the classroom automatically. This model was originally designed to improve classroom learning by making lectures accessible online repeatedly for students. The latter, the Learning Management Systems, are software which is protected by password where students can log in and use them to learn. Examples of learning management systems are Desire2Learn, Moodle and Blackboard and these facilities are actually replications of the classroom design model [8]. Teachers can make weekly modules or units, select and present learning materials material to students in class at the same time. In addition, the teacher can also register students in the class. Learning management systems also provide facilities to discuss and work on learning materials and assess student learning outcomes.

B. Advantages and Disadvantages of E-learning

E-learning which is adopted by higher education institutions offers some benefits, and because of its various benefits and advantages, e-learning is referred to as one of the best models in the teaching and learning process. Some researchers have conducted studies on the advantages and benefits of e-learning including D. Klein and M. Ware [9], A. F. Algahtani [10] S. Hameed, A. Badii, A. J. Cullen [11] .

Based on a literature review, the adoption of e-learning in the world of education provides several benefits. Firstly, e-learning enables two-way communication among students by utilizing discussion forum facilities. Through forums and online discussions, e-learning helps eliminate obstacles that have the potential to inhibit students from participating in the learning process including overcoming fear. Through e-learning, students are motivated to build interactions with other students, exchange ideas and respect the different perspectives of others. As explained by N. Wagner, K. Hassanein, and M. Head [12], many learning activities can be created using e-learning.

Secondly, regarding time and place, e-learning offers flexibility. Through e-learning, each student can choose the time and place according to their time. As stated by Smedley [13], students can access learning materials and the teacher can teach and deliver learning material at any time.

Furthermore, according to A. F. Algahtani [10] and T. Amer [14], the use of e-learning also has the potential to reduce stress levels and increase student learning satisfaction. This is because through asynchronous mode, students can learn at their own pace.

Next, e-learning accommodates individual differences from each student. For example, some students prefer accessing learning material in the form of videos while other students are more interested in reading power points as a summary of the learning materials [14].

While e-learning offers several advantages, it also has disadvantages. Several studies such as those conducted by Nichols [15], D. Klein, M. Ware [9], S. Hameed, A. Badii and A. J. Cullen [11] confirm that e-learning has several weaknesses. While e-Learning is claimed to improve the quality of education, C. Dowling, J. M. Godfrey, and N. Gyles [16] argued that improving learning outcomes only applies to forms of assessment from the results of multiple-choice tests. Mayes, Ku, Akarasriworn and Korkmaz [17] also doubts whether e-learning is merely a supporting tool for existing learning methods. The loudest criticism of e-learning adoption delivered by P. Burdman [18] is the absence of genuine personal interactions, not only between students and teachers, but also among students.

There are several disadvantages of e-learning adoption proposed by Bates [7]. Firstly, in terms of the need for clarification of learning ideas or material, face-to-face classes are more effective than e-learning because in face-to-face learning, students can directly ask the teacher. Secondly, students who use e-learning usually have less interaction and relationship among themselves. Therefore, the teacher or instructor must be competent in providing online learning activities that encourage interaction among students. Next, compared to face-to-face classes that have many interactions, e-learning may give students less opportunity to communicate so that it may not be able to improve students' communication skills. As a result, even though students gain sufficient knowledge, they may not be able to communicate their ideas to others. Furthermore, education and teachers are seen as institutions that are responsible for socializing values to students through direct interaction. The existence of e-learning will likely reduce this institution's educational role. Finally, it is very difficult to control fraud and cheatings in e-learning because of the use of proxies in e-learning tests and assessments. In addition, because it is easy to copy and paste content knowledge in the online world, teachers who teach using e-learning tend to find difficulties in controlling plagiarism. In conclusion, while there are both advantages and disadvantages of the e-learning adoption, the advantages outweigh the disadvantages.

C. Challenges in the E-learning Implementation

Challenges in the e-learning implementation can be classified into four major areas including complexity of the e-learning, self-regulated learning, technical difficulties, learning styles and preferences. To begin with, online learning requires complex digital skills for students including

strategies for downloading text and videos as well as working on assignments online both individually and collaboratively. Students must also understand how to open a new window and save data or files [19]. Thus, the complexity of online learning requires students' adequate cognitive abilities.

With regard to self-regulating learning, a study conducted by Chang [20] confirms that students who are able to monitor themselves have better academic achievement in English language proficiency tests than those who are not. According to M. J. Tsai [6], in online learning students have the opportunity to monitor and regulate themselves including reading and doing tasks independently. Students should also ensure that they can master all learning materials well [6].

The next challenge, namely technical difficulties, refers to computer and internet anxiety. In their study, Ekizoglu and Aozcinar [21] found that students who had low internet abilities tended to have high levels of anxiety. S. Aydin [22] said that students feel frustrated when a network or computer system is in trouble because they feel they have lost the opportunity to take lessons. S. Aydin [22] added that computer anxiety is responsible for decreasing students' learning achievement.

Related to learning styles and preferences, the online learning environment requires students to adapt the new situation. This process of adaptation may be the deployment of different learning styles [23]. According to Kearns [24], this adaptation will be a problem for students who have limited technological abilities. Moreover, according to S. J. Crim and T. G. Reio [25], many teenagers and young people prefer face-to-face learning because they can meet and study with their peers.

III. METHODOLOGY

A. Participants

Qualitative methods are used in this study, therefore this research is naturalist and interpretive. Naturalist means that this research explores social reality without the intervention of researchers. R. Bogdan, and S. K. Biklen [26] said that in naturalistic research data comes from natural contexts. Interpretative means that in this study, data stemmed from participants' perspectives and experiences are interpreted by researchers. Qualitative research is often referred to by many scholars as constructivist research where researchers must construct meaning and understanding of the data collected from participants' experiences and stories.

Case studies are used as the strategy of inquiry in this study. Case studies, according to Stake cited in J. W. Creswell [27] require researchers to investigate events, activities, processes or programs in depth. The case examined in a case study might be some units or sets of cases. The data from those cases are then collected and analyzed. According to J. W. Creswell [27], the focus of the case study is to explore the bounded system for one or more cases in detail. The subsequent step is the in-depth data collection process which involves different contexts and information sources. According to Herdiansyah [28] the 'bounded system' is related to the limitations of the time, place and case. As Stake pointed out, particularization is the objective of the case study, namely the complexity and particularity of a single case as well as efforts to understand 'why' and 'how' activities in the unique condition happen.

This research will be carried out in an English education study program at a private University in Yogyakarta. Data was taken through interviews with five lecturers and 20 students in focus group discussions. Five lecturers studied have used e-learning to teach English for more than two years so that they had sufficient experience and they could provide perspectives on the challenges of implementing e-learning and they were the most active lecturers implementing e-learning. Meanwhile, 20 students had also attended lectures through e-learning for at least two years so that they could share the various challenges they face in attending lectures. In addition to interviewing lecturers and students, document analysis was used to collect the data and documents included online lesson plans and learning materials.

The results of the interviews were then transcribed and analyzed. In addition to data taken from interviews, documents related to the implementation of e-learning including lesson plans and learning materials were analyzed leading to the use of document analysis techniques.

Regarding data analysis, this research used thematic analysis. Thematic analysis, according to V. Braun and V. Clarke [29] is a strategy for analyzing, identifying and reporting various themes that arise from the collected data. In analyzing data thematically, the researchers used inductive methods in treating data. This means that the themes emerged from the data obtained, not from the pre-conceptions and theories that the researcher had prepared in advance. According to V. Braun and V. Clarke [29], the steps in analyzing thematic data include familiarizing with data, giving code, searching for themes, reviewing themes, naming themes and reporting.

IV. FINDINGS AND DISCUSSION

This research was aimed at exploring the challenges faced English education students at an English Education Department in a private university in Yogyakarta in using e-learning and strategies adopted by students and lecturers to overcome the challenges. The research found that the challenges facing students in implementing e-learning included the cognitive, metacognitive, learning styles and preference and technological anxiety. The findings and discussion will be detailed below.

A. Cognitive Challenge

As explained by M. Puzifferro [30], the cognitive element in learning referred to behaviors which are needed by learners to acquire knowledge successfully in the learning process. The e-learning implemented in the English Language Education Department (ELED) of a private university in Yogyakarta has been equipped with dynamic functions such as online exercises including quizzes and discussions, video and text download, assignment uploading and grading. Most lecturers thought that creating online quizzes was challenging. Other lecturers said that grading was the most difficult thing to operate.

Some students in the focus groups discussion (FGD) stated that they struggled hard to learn how to operate the e-learning functions. Some students said that after they attempted more than twice, they finally managed to operate the e-learning functions. Similar opinions were shared by most of the interviewed lecturers. The finding corroborates with what M. J. Tsai [6], Want and Chen [31] found in their

study suggesting that students who learn online have to learn and be able to open new windows, click, scroll down and save files.

In addition to the difficulty in operating the e-learning functions, students also had difficulty dealing with reading many journal articles suggested by lecturers. Some students said that comprehending a large number of journal articles online was not easy. They further stated that the most challenging part was to choose which articles should be read first.

B. Strategies to Overcome Cognitive Challenges

The strategies to overcome the cognitive challenge faced by students had been done by lecturers. Regarding students' challenges in using the e-learning functions, lecturers trained students to use e-learning to answer the quizzes, participate in the discussion forum and submit the assignments. During the training, students had to do rehearsal in operating those functions. The lecturers further explained that after the training, most of the students could engage with the teaching and learning process through e-learning. With regards to challenge in dealing with reading a large number of journal articles, students overcame it using the selection strategy, namely starting from the most important to the least ones.

The second strategy employed by students was comprehension. Most of the students in the FGD were of the opinion that the online reading materials were difficult to understand. Therefore, after they selected the most relevant online reading materials, they had to comprehend them. One student said, "I often guess the meaning from the context in comprehending reading materials" (S8).

The findings related to the challenges concerning the effective use of the e-learning functions and to select and comprehend reading materials were in line with emergence of cognitive challenge in using e-learning as proposed by M. Puzziferro [30]. According to him, using e-learning necessitate challenges in using certain behaviors to successfully acquire knowledge while engaging in the learning process. In R. Riding's terms, the behaviors to acquire knowledge and engage in the learning process should be related to perceptual and intellectual activity including using complex functions of e-learning and comprehending online reading texts as experienced by the student participants [31].

In connection with strategies to overcome the cognitive challenge, M. Puzziferro [30] said that dealing with an abundance of reading materials or information, several strategies can be used by learners including selection, acquisition, construction and integration of information. In addition to these, rehearsal, elaboration, organization, comprehension, and internet strategies can be employed [8].

C. Metacognitive Challenge

Metacognitive challenges, as pointed out by P. R. Pintrich, D. A. Smith, T. García, W. J. McKeachie [32] are related to the ways in which students monitor their cognitive process by planning and learning as well as evaluating and regulating their learning process. The lecturers and students in the FGD explained that the online class had given them more freedom as they were not restricted by the schedule of classroom hours. The student's responses were in line with M. J. Tsai's [6] opinion stating that great freedom is experienced by online

learners since they do not have specific class schedules and there is no requirement for classroom attendance. However, the lecturers and students said that as online students had more freedom; they had to be able to regulate their own learning. The interviewed lecturers coined this notion with the terms 'autonomous learning' and 'self-regulated learning'. According to the lecturers, most of the students could set up their learning schedules although some of them could not. Some other students related the difficulty in setting up learning plans with challenges in material reading and task analysis.

The second metacognitive challenge faced by students was monitoring. Some students explained that they sometimes did not monitor the online discussion forum and quizzes. As a result, they did not participate actively in the discussion. The reason for not joining the discussion forum, according to them, was because the lecturers did not take the scores from the discussion forum.

The next challenge was evaluation. Evaluation refers to students' effort to evaluate the strategies used in the learning process, how the outcomes of the task were evaluated and how well the task was accomplished. Only few students said that they evaluated their learning process and the outcomes of the tasks. This was confirmed by the lecturers that students tended to evaluate their own achievement in the assignments. One lecturer gave an example, "For instance, they had a lot of grammatical mistakes in the first assignment, and they repeated the same mistakes in the second assignment".

D. Strategies to Overcome Metacognitive Challenges

The strategies to overcome the metacognitive challenges, in the lecturers' perspectives, included the learning plan and preparation as well as the learning evaluation. In terms of the learning plan, all the interviewed lectures developed lesson plans posted in the e-learning so that students could access the information about the courses as soon as possible. The lecturers further explained that the first meeting with the students in the class was used to explain the lesson plans which consist of the activities done in every meeting and the assignments.

The lecturers' strategies to help students to succeed learning in the online environment seemed to reflect the nature of metacognitive strategies proposed by P. R. Pintrich, D. A. Smith, T. García, and W. J. McKeachie [32] stating that metacognitive strategies are the ways used by students to monitor their cognitive process by planning and preparing the learning as well as to regulate and evaluate the learning process.

In the students' perspective, to adapt the new e-learning environment, they had applied several strategies including goal setting, self-management, time management and self-evaluation strategies. In terms of goal setting, the students explained that they focus on the lesson plan including the schedule for on-line meeting, the expected outcomes of the course and specifically, the expected outcomes of the assignments. The following are the students' responses captured in the FGD: "I set up my learning goal based on the lesson plan where I will know the assignments and their scoring weight" (S5).

The second strategy used by students was self-management. When asked about the difficulty in learning

using e-learning, most of the students in the FGD said that in the online environment, they had to take full responsibility for their own learning. One student, for example, said, "I have to be fully responsible to read the materials posted by lecturers in the e-learning. You know, in the e-learning, lecturers cannot urge us to keep reading, so that I have to keep monitoring evaluating my own learning progress" (S13).

The third strategy deployed by students was time management. Based on the lesson plan document uploaded by lecturers in the e-learning, the lecturers set up the due date to submit all the assignments. The students acknowledged that they were aware of this. Hence, they explained that they had to manage the time in order to overcome the due date. Some students in the FGD explained that in order to submit before the due date they had to do the assignment as early as possible. This strategy was taken, because, according to them, they had a lot of assignments from other lecturers. This led to the fourth strategy used by students, namely effort regulation.

The last strategy used by students was self-evaluation strategy. From the interview with the students in the FGD, seven students said they had experienced submitting the assignment late. However, they explained that they had learnt a lesson from the late submission, namely that their score would be reduced. As a result, they explained that for the other assignments they submitted the assignments on time. Most of the students also had a concern about their lack of attention in doing evaluation on what they had achieved concerning their assignment. Some of them also acknowledged that they did not actively participate in the online discussion forum. When they were asked about the solution to overcome the problem, they responded that consistent self-evaluation to their learning process and achievement was necessary.

The strategies employed by students seemed to corroborate with what P. R. Pintrich, D. A. Smith, T. García, and W. J. McKeachie [32] said as metacognitive strategies comprising of self-regulation, time management, goal setting, self-monitoring, self-evaluation, attempts regulation and self-awareness strategies.

E. Computer Anxiety Challenge

The computer anxiety is described as a fear of using computer of the possibility of using a computer [33]. Related to an affective response, people suffered from computer anxiety tend to feel fear of negative outcomes from using computers such as damaging equipment or looking stupid. A study conducted by M. Brosnan, and S. Thorpe [34] has provided evidence demonstrating relationship between computer anxiety and computer use. The studies revealed that highly computer anxious individuals are at significant disadvantages in comparison to their peers.

As pointed out by lecturers and students in the FGD, the internet system was sometimes down or too slow. As a result, they felt frustrated of not being able to access the learning materials and to submit the assignment on time. Some other students explained that they became worried because of losing their documents. An interesting comment was expressed by one student who had concern about a simple thing, namely the low speed in typing using computer. He said, "I am very slow in typing using a computer, so that I always do the assignment very slowly" (S8).

F. Strategies to Overcome the Computer Anxiety

There were various strategies proposed by the students dealing with how to overcome the computer anxiety. The first strategy concerned with the low internet speed was that students attempted to find the internet campus which had fast speed internet connection. Or else, they accessed the internet from their friends' boarding house which had fast internet connection.

Concerned with the data loss, the students explained that they should have had the data backed up, hence, they still had data in case they lost them. Related with the lost data in the submission function, the students said that self-monitoring and checking the submitted files was necessary.

The findings suggest that computer anxiety experienced by students was no longer related to inability to operate the computer technology. Instead, they were worried about some unwanted impacts related to the use of computer such as data loss, except for few students who typed slowly. In fact, according to S. Jeremy [35], for millennial generations, problems related to computer anxiety are no longer related with mundane fear of inability to operate computer. Instead, their problems are concerned with the external threat such viruses and the loss of data. However, the students' problems should be overcome both by students and lecturers because according to S. Aydin [22], computer anxiety is responsible for the low learners' achievement.

G. Learning Styles and Preferences Challenge

When asked if students enjoyed studying using e-learning, most of the students in the FGD said that they preferred face-to-face meeting to online learning. They argued that face-to-face meeting allowed them to have discussion and collaborative learning. The student's comments were confirmed as the researcher checked the discussion forum created by the lecturers. It was noticeable that the discussion forum created by lecturers in the e-learning obtained responses from the majority of students in their class. However, most of the students' response was a short single sentence. In fact, according to S. J. Crim and T. G. Reio [25], studying with peers is more familiar to students and this has become their preference. As pointed out by K. Yunus, W. Wahid, S.S. Omar and R. Ab Rashid [36], in the e-learning situations where there are no actual peers and teachers, they experience anxiety and feel frustrated because they fail to obtain immediate assistance when they have problems.

Lecturers were in agreement with the students' responses in that face-to-face class provided students with more dynamic discussion than online class. Hence, while students were motivated to use e-learning, it was necessary for lecturers to create such online discussion forums that were more dynamic, attracting students to be more participative in online discussion process. Students whose learning styles matched with their multimedia preferences, as revealed by Surjono's study [37], were likely to be more successful in online learning environment. Similarly, Fuller, Chalmers and Kirkpatrick [38] said that the deployment of effective and appropriate online learning strategies will likely to lead to more successful academic achievement. Solak and Cakir [39] assert that students learn faster and more effectively and efficiently when effective online learning strategies are employed.

H. Strategies to Overcome Learning Styles and Preferences Challenge

The prevalent problem concerning the learning styles and preferences in the e-learning was the students' preference on the traditional face-to face class. This mainly due to the failure of the e-learning functions to provide dynamic discussion students experienced in the traditional classroom. When asked about the solution of this problem, students were of the opinion that the discussion should be conducted through video conference; hence they could have direct interaction with friends and lecturers. The lecturers shared the same opinion with students. However, most of the lecturers said that they were unable to create video conference and thought that they needed training to do so.

Smart and Cappel ([40] said that the implementation of online discussion can be in various ways including synchronous and asynchronous interactive sessions. The former requires students and teachers to meet in real times while the latter requires them to interact at different times. In addition to these two methods, self-paced independent study units can also be adopted in online discussion. The lecturers were familiar with the term 'synchronous' and 'asynchronous' online discussion as proposed by Smart and Cappel. Hence, they expected that they could apply more synchronous online discussion in the future.

V. CONCLUSION AND IMPLICATIONS

The implementation of e-learning provides unique advantages to education, not to mention in the area of English teaching in higher education. The massive adoption of e-learning and paradigm shift from traditional to online learning are without challenges. This current study has attempted to explore the challenges facing students of an English Education Department of a private university in Yogyakarta in implementing e-learning and investigating their strategies to overcome the challenges.

The study revealed that several challenges were faced by students in implementing e-learning including cognitive, metacognitive, computer anxiety and learning styles challenges. The strategies used to overcome the cognitive challenges consisted of training in using the e-learning functions as well as selection and comprehension of the information. The strategies to overcome the metacognitive challenges were goal setting, self-management, time management, effort regulation and self-evaluation strategies. The strategies to overcome the computer anxiety challenges included the self-monitoring strategy for checking the e-learning submission and the provision of data back up to anticipate the data loss while the strategies to overcome the learning styles was the adoption of video conference and synchronous online discussion.

The implications of this study are related to both students and lecturers. This current study had revealed the types of challenges and strategies concerning the implementation of e-learning. However, the major concern of the students was that to a certain degree, they had more preference on the discussion conducted in face-to face classroom. This concern should become lecturers' awareness that the shift from offline learning to online learning is not only a matter of using internet technology, but also cultivating the student-centered learning. Hence, e-learning should be created in an interesting

and dynamic learning atmosphere so that students' learning will be effective. As in the traditional classroom, lecturers should be facilitators who assist with students' difficulty and give useful feedback to their learning.

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