

E-Learning and Student's Achievement: Fulfilling the Needs for Technology Integration

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Abstract

The gap between students' learning level and their level of writing prompted this classroom action research (CAR). E-learning was chosen as a media for students to enhance their understanding in producing a good piece of writing. The results showed that integrating e-learning in writing class contributed to the improvement of students' writing. E-learning fulfilled the need of extended activities to accelerate students' comprehension which resulted in their writing achievement. Students who actively participated in e-learning based teaching and learning activities showed a better writing performance in terms of organizing ideas. They also become more active during the classroom discussion due to their awareness of their writing problems.

Keywords: *e-learning, learning level, level of writing, writing achievement*

1. Introduction

Writing is compulsory for university students especially those majoring in English Study Program. It is not only a tool to communicate but also as a part of learning goals. Mcmillan & Weyers (2007) suggested that the ability to transferable skill of writing will mark the students as a competent communicator of facts and opinion. In fact, writing to express idea can only be achieved if the students have the right skills at their disposal.

In order to communicate well through writing, the students need to consider several aspects. Firstly, students need to have clear understanding of the kind of writing they are required to do which is explained in terms of the audience, tone, and purpose. Besides, they have to consider the organization of the paragraph which require unity and coherence. They also need to pay attention to the mechanics. Here, they need to have clear understanding of using punctuation such as periods, commas, capitalization or spelling appropriately. The students need to take into account the choice of words, grouping, the ordering of words

and the construction of each sentence and paragraph. Indeed, the students need to heed the practicalities of locating relevant material, researching information, and checking so that they can be able to extract what is relevant to their purpose of writing (Mcmillan & Weyers, p. 4).

In fact, it takes time and dedication to acquire and develop the ability to write. Therefore, it is understandable that there are some levels for the students to reach the final aim of writing. The students need to pass writing I, II, III and finally writing IV in which they are acquired to produce a piece of academic writing. Each of writing level was supposed to help students acquired the right writing skills from the very basic to the most complicated ones started from writing a paragraph to a longer essay paper. However, the problems occurred when the students' learning level, the students' current semester, and their writing level, the level of writing course they were attending, did not match.

With their learning level, the students were supposed to study and start to write various kinds of essay which was covered in writing III course. Nevertheless, the students showed lack of understanding in writing a single paragraph. Most of the students still did not have clear ideas of what they wanted to share through the paragraph. They even could

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not decide a topic sentence from the topic of the paragraph they had chosen, let alone write an essay. Oshima & Hogue (2006) argued that the principles of organization of writing a paragraph and an essay are the same for both. If the students can write a good paragraph, they can write a good essay and vice versa.

As the result, time become a great obstacle to fulfill the students' needs and the aims of the course. The tight schedule were considered irrelevant to fulfill the students' needs and the aims of the course. Therefore, I choose e-learning as a medium of instruction. E-learning is a Web-based or internet-based learning. E-learning is any mediated learning using computers whether from a distance or in face to face classroom setting. It is a shift from traditional education or training to ICT-based personalized, flexible, self-organized, collaborative learning based on a community of learners, teachers, facilitators, and experts (Markus, 2011). Besides, according to Jetro, Grace & Thomas (2012), e-learning offers learners control over content, learning sequence, pace of learning, time and often media and allowing them to tailor their experiences to meet their personal learning objectives.

Some studies showed some advantages of using e-learning. Meloni (1998) stated that E-learning motivated students and increased their global awareness. It also encouraged learners to work independently as each student can work on different tasks with integrated learning environment (Wu, Su & Ge, 2012). Nedeva & Dimova (2010) mentioned that advanced learners could be able to work faster and finish more activities than novice learners. Fryer & Boviee (2016) agreed that blended online learning can increase the students' engagement in language learning. E-learning becomes the solution for the insufficient time the students get from offline learning. Indeed, by integrating e-learning and the teaching of writing, it is expected that the students had more time to work on more writing practice to accelerate their comprehension and face the challenging in reaching the goal of the writing course.

2. Method

The subjects of the study were 33 students majoring in English Education study program at State Islamic University of Sulthan Thaha Saifuddin Jambi. The subjects had already passed the previous three writing classes and currently having writing IV class. In the current level of writing class, they were prepared to be able to write various kinds of essays in academic mode. In fact, a critical issue arisen during the first- two meeting of teaching. It was found that the students got difficulty in writing a single paragraph considering the aspects of writing a good paragraph in academic writing mode. As the result, Classroom Action Research (CAR) was believed to be the most appropriate methodology.

Before the actual action research, a pre-action research was carried out in order to find out the students' actual academic writing achievement. Paragraph writing test was used as the instrument for the pretest. Then, the students' writing results were analyzed in terms of format, punctuation and mechanics, content, organization, and grammar and structure by using writing rubric proposed by Oshima & Hogue (2006, p.315).

The result of the pre-test shown that though the students had no significant difficulty in using punctuation or capital letter, they did show lack performance in the aspects of content, organization and grammar and structure. The paragraph did have the topic, yet the topic did not have controlling idea. In fact, the topic sentence that the students write was mostly too specific that they could not develop the paragraph. In some cases, the topic sentence was too general that they could not tell the reader their intention in writing the paragraph. Students also failed to support their ideas sufficiently making it hard to follow. Constructing the sentence appropriately became the other problem. Students failed to write sentences that grammatically correct. Those particular issues, as a matter of fact, were the ones that this research intended to solve.

The research was conducted in four phases within three cycles that continuously proceeded until the criteria of success were achieved. After finding out the students' real problems, the study was started by deciding the materials to be provided such as the concept of unity, coherence, and the concept of constructing English sentence. Then, a course management system that could blend well with e-learning was selected. SoftChalk, then, was chosen as a platform for creating or editing lessons for the e-learning classroom. During this planning phase, e-learning classes for the students to enroll were also created.

The action phase consisted of the implementation of e-learning classroom. The first cycle was started with planning the action. This was the stage in which the students got the enrollment key to access writing group in e-learning. Then the tasks were assigned to the students to confirm their understanding after the classroom meetings. Designing the learning resources and activities, and setting the availability of the course including the due date and the cut-off date were also a part of this action phase. The next stage was implementing and observing the action. The e-learning based activities were firstly implemented on the first week of October 2015. The first paragraph writing task was uploaded. The task was given to confirm the students understanding about how to write good topic sentence and supporting sentences. The students enrolled and were given the chance to complete the task for a week. During the process, the students' activities

were kept being observed by giving the feedback continuously until the whole class completed the task. At the end of the stage, the process was continued to analyzing and reflecting the e-learning class activities.

On the third week of October, after the classroom meeting, the second cycle was conducted as the reflection from the first cycle. When planning the action in this cycle, the writer focused on designing learning materials by using SoftChalk as the platform. The ways of achieving coherence was the learning material designed. The first task was aimed to confirm the students understanding of using appropriate transition signal and arranging the ideas in logical order. The students were given three days to study the materials and complete the tasks. The focus of the observation stage was the students' results of writing paragraph in coherence. Then, the final stages of the second cycle were analyzing and reflecting the writing products to make sure whether or not the students made improvement in terms of academic paragraph writing.

The third cycle, then, was implemented on the first week of November. It was bound to the second cycle. This cycle began with the planning stage where the learning resources that focused on improving students' awareness on writing grammatical sentences were designed. The materials were presented through SoftChalk. At the end of the learning activities, it was expected that the students could apply the rules of writing grammatical sentences that they had learned. The result of learning would be seen from the students' final paragraph writing.

After the implementation of the actions which ran within the three cycles', a comprehensive observation and evaluation of the whole activities was conducted. The results' of the effect of implementing e-learning classroom on the students' paragraph writing were observed by using writing test as the instrument. The students' participation during the implementation of the action were also observed and evaluated from the activity report provided as one of administration tools in e-learning. The students' participation could be seen from their log-in time frequencies and the tasks they had completed. At the end, the students' performances in writing academic paragraph before the actual research were compared to their final writing after the implementation of e-learning classroom. The result would be analyzed by using the same writing rubric used at the pre-action research. Then, the students' results were categorized into some qualifications.

Table 1. Score Category

No.	Score Interval	Category
1.	80-100	Excellent
2.	75-79	Very Good
3.	70-74	Good
4.	65-69	Fair
5.	60-64	Poor

Source: *Buku Pedoman Institut Agama Islam Negeri Sulthan Thaha Saifuddin Jambi 2012-2013*

3. Findings and Discussions

The first two meetings of the course determined the aims of this study. At the first meeting, the students discussed about how to recognize topic sentence. Choosing supporting sentences was a follow up activities. It was expected that the students could follow the materials and fulfill the related tasks as warming up activities since they had passed writing III where they were supposed to learn about how to write paragraph. However, the results were disappointing. The students' paragraph writing was out of expectation. As a matter of fact this research study was conducted. In this part, the results of students' writing after being given extended activities through e-learning were discussed. Before completing the learning process provided in their e-learning, the students had usual classroom meetings and were introduced with certain concepts of writing. Sharp observations during the meetings resulted in the choice of materials for e-learning class.

The first Cycle

The phases in this cycle were based on the students' writing results. As a matter of fact, the students' deeper understanding about starting a paragraph was strengthen. During the class meetings on the fourth week of September, and the first week of October, the students involved in deeper discussion about how to decide an appropriate topic sentence and supporting sentences. The students were given the materials gradually. It was started from the very basic activities where they were given tasks to choose appropriate topic sentence for certain paragraph. Then, the students practiced to recognize appropriate topic sentence in scrambled paragraphs. Through the activity, students also practice recognizing supporting sentences by arranging the sentences to form good paragraphs. After the classroom meeting, the students were assigned into e-learning group. In the e-learning, the students were given instruction to complete the task. The instruction let the students to write in an appropriate format such as the use of font, space, and the setting of page layout. The students were also provided with several topic sentences to help them find appropriate supporting sentences to be developed into paragraph. The students had a week to finish the task before they had classroom meetings.

During the week, the students' writing products were observed by using paragraphs scoring rubric. Commonly the assessment in e-learning would be the same assessment to the whole participants. However, in this study, since it focused on students' writing production, the assessment was given interactively for each of the participants. The students were given

feedback and chance to resubmit their work. Each of the students received feedback differently based on their writing result. They were asked to submit their works, the works then were observed and sent back to them through e-learning. Figure 1 shows the feedback given to students writing submitted through e-learning.

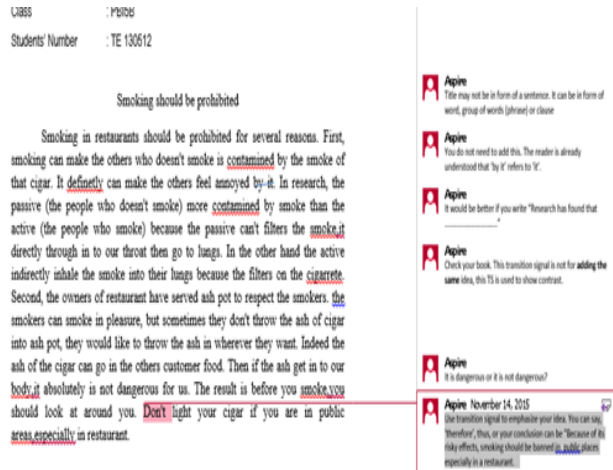


Figure 1. Example of feedback sent for the students

The Second Cycle

The first cycle showed the students understanding about the topic sentence and supporting sentences in a paragraph. However, the results of students' writing was still needed improvement. They could decide the supporting sentences for certain topic sentence they had but the way they moved one sentence to the next sentences was still rough. Thus, this second cycle focus on improving students' writing to achieve unity and coherence. During the classroom meeting, the students were introduced to the concept of unity where they had to choose supporting sentences that focus only one main idea. They, then, were introduced to the concept of coherence. They practiced repeating key nouns and use consistent pronouns. In e-learning group, the students continued practicing the concept of writing paragraph with coherence. The detail explanations were uploaded in form of video guidance. The video described the things to consider to reach unity in paragraph. It shown the importance use of transition signals and step by step procedures to use transition signals. After learning through the video tutorial, the students were directed to complete the task to confirm their understanding about the use of transition signal. The task was designed by using Softchalk as a platform and was integrated in e-learning.

The Third Cycle

Before the third cycle were conducted, the students were involved in reflection and evaluation activities. The activities were classroom activities in

which the students apply the concept of unity and coherence through writing paragraphs. The students were assigned into group of five. The members of the group were chosen based on their writing results in previous cycles. Some of the students were really good in deciding appropriate supporting sentences and using transition signal, yet some still needed more practice. Therefore, the students with different level of achievement were mixed together to be able to learn from each other. Each of the group randomly chose the topic for their paragraph. They, then, were given time to develop the topic into paragraph by applying the concepts they had learned. The students writing results were analyzed and edited by using editing symbols developed by Oshima and Hogue (2006).

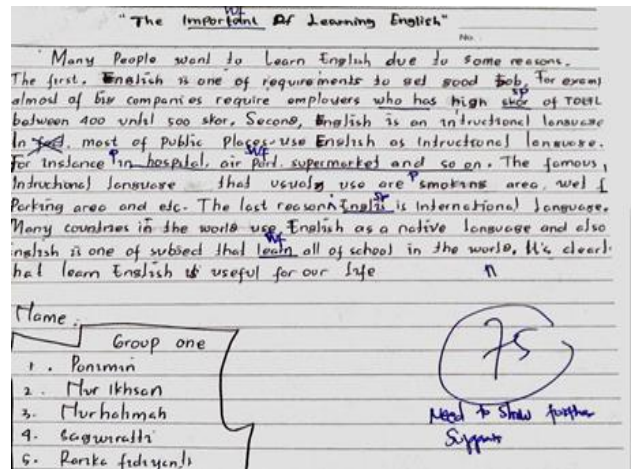


Figure 2. Example 1: Edited version of students' writing draft

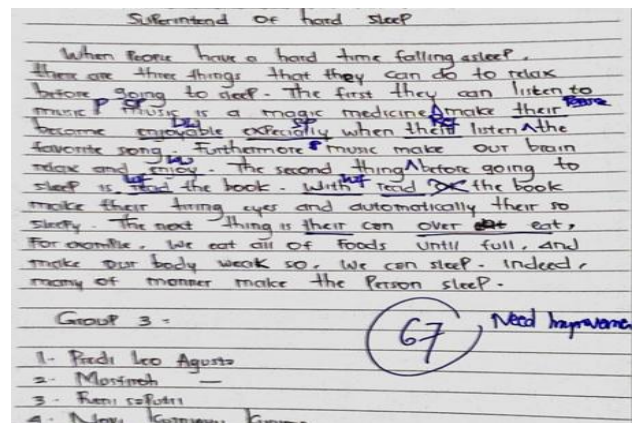


Figure 3. Example 2: Edited version of students' writing draft

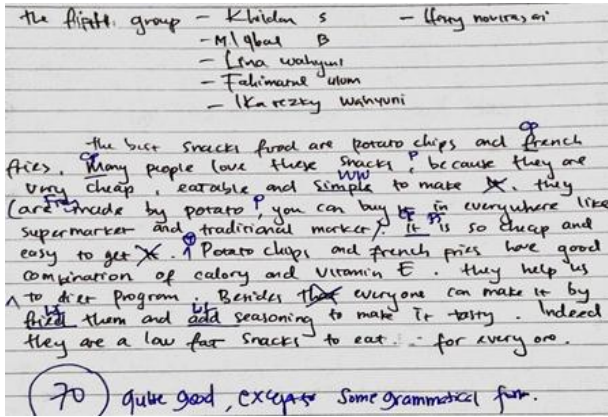


Figure 4. Example 3: Edited version of students' writing draft

The results showed that the students still did not pay attention to the mechanics. Moreover, they still did not aware of grammar and sentence structure. For Instance, students made error in the use of punctuation (p), spelling (sp), use word form (wf), or verb tense (vt). Some errors such as wrong word (ww), missing word (^), unnecessary word (X), or fragment (frag) also occurred. Therefore, the third cycle highlighted on the grammar, sentence structure and mechanics. Students tend to use the concepts of Bahasa Indonesia to write in English which is really different. They tend to combine one sentence to another without having clear subject. Through the meeting in e-learning, the students' concepts were toughened. The students were asked to complete the task, then they were asked to bring all the concept they had learned into a complete paragraph writing task.



Figure 5. Sentence structure: Material uploaded in e-learning for the third cycle

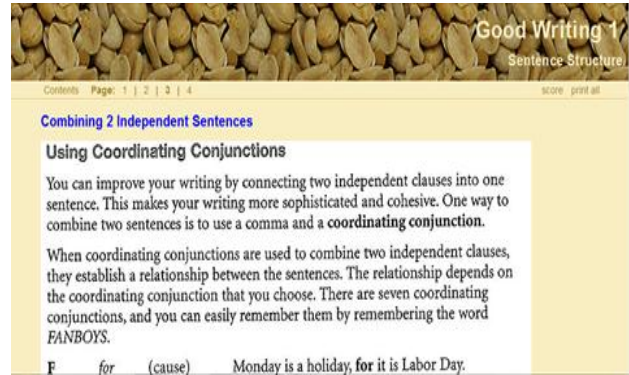


Figure 6. Avoiding Fragment: Material uploaded in e-learning for the third cycle

Sharp observations also accompanied the action phases. There were some issues occurred during the observation. At the very beginning, e-learning class was something new to the students. Students assumed that the activities designed in the e-learning were not core for them to fulfill. Besides, some problems including lack experiences in using devices and internet connection became obstacles. However, clear and assertive instructions reassured the students to participate and finish the tasks on time. At first, the students had only one attempt with 24 hours' time limit to finish the task. Then, the cut-off date was evaluated to make sure that the students had appropriate chance to study the materials and complete the tasks. The evaluation also provided opportunity for the students to submit their very best work.

Another issue was related to the students' completed tasks evaluation. It could not be denied that the students need direct evaluation for their work. The students got motivated when they found their results. Therefore, at the second cycle, learning materials and learning assessment were combined through one integrated e-learning authoring tool content, SoftChalk.



Figure 7. Embedded Assessment on unity and coherence

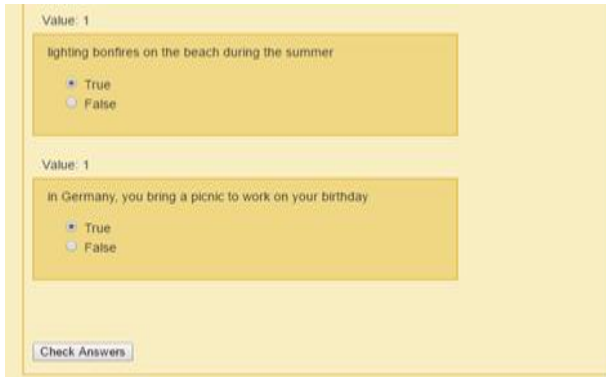


Figure 8. Direct Evaluation

Figure 9 shows brief report on students' participation on the task provided in cycle 3. It can be seen that the students put more effort in completing the task. They did not only access the material once but they tried to reach the best score by using the number of attempts allowed. For instance, it can be seen that some students' first access time was on Wednesday, 11 November. In fact, they did not stop on the first attempt. The material was last accessed on Saturday or Sunday, the third or the fourth day after the start time.

Username	Attempts	First Access	Last Access	Score
o-c-o-i-d	1	Wed, 11 Nov 2015, 2:32 PM	Saturday, 14 Nov 2015, 9:35 PM	13
susankhamimh@gmail.com	1	Wed, 11 Nov 2015, 8:08 AM	Saturday, 14 Nov 2015, 12:18 PM	14
miskaoryanit95@gmail.com	1	Thursday, 12 Nov 2015, 9:42 AM	Saturday, 14 Nov 2015, 6:37 PM	14
mahdaafrikant25@gmail.com	1	Saturday, 14 Nov 2015, 8:58 PM	Sunday, 15 Nov 2015, 11:17 PM	12
@yahoo.co.id	-	Nov 2015, 6:41 PM	Nov 2015, 7:31 PM	-
marisadiscova@gmail.com	-	-	-	-
khaldonisyuhendra@gmail.com	1	Wed, 11 Nov 2015, 2:56 PM	Saturday, 14 Nov 2015, 9:53 PM	22
lakarunluculia@gmail.com	1	Wed, 11 Nov 2015, 10:25 PM	Sunday, 15 Nov 2015, 7:30 PM	7

Figure 9: Sample Report on Students' online access

Observation and Evaluation

The students' writing tasks at the third cycle were observed and analyzed. The results show the differences

between the students' writing results in the pre-action research from that after the third cycle. There were 6 students (18.2%) reached good category. Two students (6.1%) got the score in interval 75-79 which was categorized good. Although there were 2 students got the scores in excellent category, during pre-action research, there were still some students who could not reach even the lowest score category. There were 6 students (18.2%) categorized failed. Moreover, poor category dominated the results which was reached by 13 students (39.4%).

Table 2. The Result of Students' Paragraph Writing: Pre-Action Research

Categories	Frequency	Valid Percent	Cumulative Percent
Excellent	2	6.1	6.1
Very Good	2	6.1	12.1
Good	6	18.2	30.3
Fair	4	12.1	42.4
Poor	13	39.4	81.8
Fail	6	18.2	100
Total	33	100	

After the third cycle, it was found that there were improvement on the students writing result. Although there were still 7 students (21.2%) reached poor category and 4 students (12.1%) reached fair category, there were no more students were categorized failed. The number of students who got score that categorized Excellent were 9 students (27.3%). The rests 13 students were categorized very good (12.1%) and Good (27.3%).

Table 3. The Result of Students' Paragraph: Cycle 3

Categories	Frequency	Valid Percent	Cumulative Percent
Excellent	9	27.3	27.3
Very Good	4	12.1	39.4
Good	9	27.3	66.7
Fair	4	12.1	78.8
Poor	7	21.2	100.0
Total	33	100.0	

Statistical analyses of paired sample t-test also strengthen the result. There was a statistically significant improvement on students' achievement before the implementation of e-learning activities (Pre-Action research) (M= 61.42, SD= 13.447) and after the implementation (cycle 3) (M= 73.06, SD= 9.397), t(32)= 5.582, p= 0.000. The eta square statistic (0.493)

indicated a large effect size. In fact, the students' achievement are due to some factors.

Firstly, since e-learning was a new platform for them to engage in teaching and learning activities, the students were challenged to complete the tasks given. This is in line with what Dornyei (2001) mentioned about the features of the tasks that will motivate students. Challenge is on the top list of the features. Since being challenged is something that human like, challenging activities will arouse students' motivation and at the end will help them to learn language better. He also argued that building optimal challenge will awaken the students' intrinsic motivation to complete an activity in the classroom.

Besides, e-learning as a technology based learning platform, enhances the students' experience the emergence of today's technology devices. The study of Gulek and Demirtas (2005) indicated that the students who enrolled in laptop program show better change in score during the program than the student of non-laptop. The study also showed that the laptop students demonstrated significantly higher achievement in language art. As a matter of fact, students do not necessarily have to use laptop or computer to study. They can simply use their everyday gadget to access their materials. A more sustainable technology like smartphone heighten the students' desire to learn. Inasmuch as the ease that the smartphone can bring, it assists the students to enjoy teaching and learning activities. Mobile learning lets the students to learn in personal, deep and engaging ways that makes them show better performance (Looi et al, in press).

Feedback and evaluation seems to give impact to the students' achievement, too. Learning while getting the right information is important, but learning through their mistakes is more essential. During the observation, the researchers found that students writing problem were due to their lack of knowledge. They experienced learning without acknowledging their mistakes. Writing, in fact, is a skill. The students need both of the knowledge and the experience in writing. They need to produce their product of writing. Therefore, once they produce their writing, they need to be evaluated. Both direct correction and simple underlining error help the students significantly to improve their accuracy (Chandler, 2003). What makes it essential is that, the students need to be evaluated. They will learn more when they get feedback.

4. Conclusion and Suggestions

The results of this study indicate that e-learning brings significant change to the students' writing achievement. To the lecturers, e-learning assisted them to deliver the materials. Lecturers can manage their time to extend the materials through e-learning. However,

there are some considerations to the betterment of e-learning implementation.

To the stakeholders, since e-learning demonstrates significant effect to the teaching and learning activities, it is important to build the system where the lecturers focus only on managing the classroom interactions. In State Islamic University of Sulthan Taha Saifuddin Jambi, the procedures to access e-learning are quite complicated. Every semester, the lecturers must request the administrator to have a course in e-learning. Without following the procedures, they cannot get access to manage the class.

Besides, the lecturers must prepare the rooms with different passwords for different classes and different courses that will add more workload to the lecturers. Each of the students should also register in each of the courses in every different semester. It would be better to have more managed system where the lecturers can give more attention on managing the classroom interactions. It is better if the system prepare the rooms for all the courses available in each of the semester, so once the lecturer log in into their accounts, they will see their courses have already available there. Students are also needed to be treated the same way. They need to have one single account for each of the semester, so once they log in into their accounts, they can directly access the courses that belong to each of the semester.

Internet connection issue must also be anticipated. Bad network connection can become excuses for not being involve in the Learning Management System. Students' motivation can decrease because of this obstacle. During the study, students sometimes complained that they cannot send their assignment on time. Sometimes, the lecturers feedback could not be access since they did not get good connection to the network. Some students could not even get access to the network.

Furthermore, using content development tool for e-learning is worth to try. Although e-learning is a complete set of learning management system, companion product can help the lecturers develop more attractive material for the students. Students can see various ways of displaying and providing the materials to the students.

Overall, to those who just started to integrate e-learning in teaching and learning activities in the classroom, there are some important things to be taken into account. Firstly, e-learning is not only a tool to upload and download materials. It has systems where educators can use to engage the students through various kinds of activities everywhere in no time. It is not only a tool to let the educators to run away from his or her responsibility to teach, but also a tool for the lecturers to show their students that distance and time cannot let them down in learning. It is a tool for them to show that

lecturers can take good care on the students wherever they are. Moreover, feedback is important for the students. Whatever the media or tools or however the lecturers deliver the materials, they need to give clear feedback to the students.

References

- Chandler, J. (2003). The efficacy of various kinds of error feedback for improvement in the accuracy and fluency of L2 student writing. *Journal of second language writing*, 12(3), 267-296.
- Dörnyei, Z. (2014). *The psychology of the language learner: Individual differences in second language acquisition*. Routledge.
- Fryer, L. K., & Bovee, H. N. (2016). Supporting students' motivation for e-learning: Teachers matter on and offline. *The Internet and Higher Education*, 30, 21-29.
- Gulek, J. C., & Demirtas, H. (2005). Learning with technology: The impact of laptop use on student achievement. *The journal of technology, learning and assessment*, 3(2).
- Jethro, O. O., Grace, A. M., & Thomas, A. K. (2012). E-learning and its effects on teaching and learning in a global age. *International Journal of Academic Research in Business and Social Sciences*, 2(1), 203.
- Looi, C. K., Zhang, B., Chen, W., Seow, P., Chia, G., Norris, C., & Soloway, E. (2011). 1: 1 mobile inquiry learning experience for primary science students: A study of learning effectiveness. *Journal of Computer Assisted Learning*, 27(3), 269-287.
- Márkus, B. (2011). E-learning Experiences. *Geographia Technica*, 14(2).
- McMillan, K., & Weyers, J. (2007). *How to write essays & assignments*. Pearson Education.
- Nedeva, V., & Dimova, E. (2010). Some advantages of e-learning in English language training. *Trakia Journal of Sciences*, 8(3), 21-28.
- Oshima, A & A. Hogue. (2006). *Academic writing* (4th ed). White Plains, NY: Pearson Education.
- Wu, B., Xu, W., & Ge, J. (2012). Experience Effect in E-Learning Research. *Physics Procedia*, 24, 2067-2074.