# Effectiveness of Moodle E-Learning as an Academic Writing Teaching Model in Bahasa Indonesia Courses at Sriwijaya University

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Abstract:     Writing ability especially for academic purposes is highly required for college students. Writing activity is non-separated part of academic workloads in higher education. Writing plays an essential role to achieve academic success. This present research aims at examining the effectiveness of MOODLE e-learning for academic writing in Bahasa Indonesia Course at Sriwijaya University. The research was conducted from March to November 2017. Taking random sampling of respondents, the research used writing test as an instrument. Then, the gathered data was analyzed quantitatively using T-Test. The result of the research shows that $t_{observed}$ (5.15) was higher than $t_{table}$ (1.67). In the other words, there is a significant difference of means scores between controlled and experimental classes. In conclusion, teaching model of academic writing in Bahasa Indonesia courses using MOODLE e-learning is effective to increase students' writing ability.

## 1 INTRODUCTION

Bahasa Indonesia has an important role in academic life in Indonesia particularly in higher education level of education. Bahasa Indonesia plays as a medium of thought, expression and communication. All academic activities mostly use Bahasa Indonesia as medium language. Indeed, Bahasa Indonesia has its status as official medium language in educational institutions. Therefore, competence in Bahasa Indonesia is a compulsory for the entire campus stakeholders particularly students.

For higher education level, Bahasa Indonesia is one of Personality Development subjects for registered students. When taking this subject, they focus on developing academic writing skills (Decree of Directorate General of Higher Education Department of National Education, 2006). Writing skill must be acquired by all students since it influences their academic achievement. A lot of academic workloads require writing skill, for example writing scientific papers, writing tests, writing thesis proposal which they are mostly in academic purposes and genre. The similar view was brought by Akhadiah (Fulwiler, 2002) that writing is an obligatory activity for scholars at university; otherwise, they could not improve their academic career properly. However, in fact, teaching and learning writing in subject of

Bahasa Indonesia particularly for academic writing perform under-expectation. In general, some research findings showed that Bahasa Indonesia at university has not yet influenced much to improve students' academic writing skills (Alwasilah, 2014).

To develop academic writing skill, it is necessary to apply technology in the classroom. Nowadays, the advances in technology can give positive advantages for education. The computers and internet access either hardware or software brings a lot of choices to support teaching and education facility. The advantages to use technology in the classroom are not only the factors of speed and easiness but also attractive and interactive teaching aids using multimedia platforms. Moreover, there are, of course, many teaching activities that can be supported by technology and internet access. For instance, several applications are created to assist teaching and learning activities in and outside the classroom.

Furthermore, one application of technology that can be applied for teaching is MOODLE e-learning. MOODLE stands for Modular Object Oriented Dynamic Learning Environment. Then, it is kind of web-based application that enables the users to create teaching materials and contents for learning anytime and anywhere (Hollowel, 2011). Not only that, MOODLE e-learning has some benefits for the users. At first, it offers flexibility in teaching and create

interactive teaching atmosphere. Then, the second, MOODLE e-learning gives opportunities for learners/users to get some learning experiences. At last, when using it, the learners/users can observe and discover how other learners do their learning activities.

For second language teaching context, MOODLE e-learning has been widely used as software application to improve the quality of teaching process and result (Standford, 2009; Eskandaria, 2016; Extxebarria, Garay, dan Romero, 2012; Wulandari, 2016) Compare to the previous research, this current study has some newness in the area of teaching academic writing in first language context. Firstly, the teaching model used in this research combines online and offline classrooms using web-based teaching and applying the principles of writing process approach, namely pre-writing, writing, and post-writing. Moreover, it also adopts the grids and teaching characteristics in Indonesian National Qualification Framework and the principles of e-learning and teaching. The second point of novelty of this research is the teaching model used mind maple software in planning writing activity so that the students are able to plan and organize their ideas and topic easily and more systematic. At third point, this teaching model utilizes workshop activity feature, which is suitable teaching wri ting. By using this feature, both the teacher and the students can give their evaluation and comments in the available columns completed by clear and concise indicators. In addition, this feature has facility to publish the entire students' writings, scores, and comments from teacher and peers. At last, this teaching model is also utilized itself by video recording using camtasia studio. Then, to reckon the teaching needs and some new points, this current research is seemingly necessary and important to conduct for teaching academic writing in Bahasa Indonesia classes.

Regarding to the background statements above, this article addresses to figure out the effectiveness of MOODLE e-learning for Bahasa Indonesia courses in academic writing skill at Sriwijaya University, Indonesia.

## 2 RESEARCH METHOD

To figure out the effectiveness of the developed teaching method using MOODLE e-learning for academic writing in Bahasa Indonesia courses, experimental method was carried out in conducting this present study. This type of method could test the hypothesis of cause-effect relation (Gay, Mill, dan

Airasian, 2009). To be more specific, quasi-experimental-research method was selected. The groups either experimental or controlled groups were taken from the existing classes without opening new groups.

Regarding to the sample, this current research was conducted in Sriwijaya University, Indonesia from March to November 2017. The population was the entire registered students who took the subject of Bahasa Indonesia on odd semester. Applying random sampling, 36 students were recruited as samples from the mechanical engineering program as experimental group and the agribusiness program as controlled class.

For collecting data, writing test for academic purposes was used involving two items of test. The test was held twice: Pretest and post-test. To analyse the gathered data, quantitative statistic calculation was applied using T-test helped by SPSS 23 to test the hypothesis "the academic writing skill using MOODLE e-learning in Bahasa Indonesia courses is higher than the other which is not using it" ($H\circ = \mu_1 \leqq \mu_2$ and $H1 = \mu_1 > \mu_2$).

## 3 RESULT AND DISCUSSION

The test of effectiveness was conducted by the unit of Subject Personality Development Sriwijaya University. It was taken seven times followed by 36 sample students both experimental and controlled groups. Then, two-mode activities were executed: offline and online classes using web base. One hundred minutes (two credits) were allocated as duration for offline class; meanwhile, the duration of web base online class was unlimited. However, the students are given the due time to submit the task and assessed their own tasks as well as others task. The combination of this two-mode activity can maximize the teaching learning process. Before that, all students are required to register as participants on MOODLE provided by Sriwijaya University as can be seen in Figure 1.



Figure 1. Moodle e-learning for sriwijaya student

Before conducting the experimental stage of research, both classes were taken a pre-academic writing test. Result of the test showed that the students' academic writing skill was low and not optimal. Considering this, the developed model of teaching using MOODLE e-learning for academic writing in Bahasa Indonesia courses was executed in experimental class. After that, post-tests were given for both groups.

To test the hypothesis, t-test was used by using SPPS 23 application program. This test used T-test independent sample. The test was applied by comparing the gain score from control and experiment groups to test null hypothesis that there is any significant mean difference between two groups. The result can be seen on the Table 1.

Table 1: Group statistics.

| | Class | N | Mean | SD | SE |
|---|---|---|---|---|---|
| Academi c writing skill | Ekspe ri- ment | 36 | 85.38 | 6.41 | 1.07 |
| | Contr ol | 36 | 70.86 | 8.45 | 1.41 |

Table 1 shows that experiment group with 36 samples (N) has mean 85.38 with standard deviation 6.41 and the standard error mean 1.069. Meanwhile, control group with the same number oof samples (N=36) scores mean 70.86 with standard deviation 8.45 and standard error mean 1.408.

Table 2: Independent samples test.

| Academic writing skill | F | Sig. | t | Df | $p$ |
|---|---|---|---|---|---|
| | 2.170 | 1.45 | 8.213 | 70 | .000 |
| | | | 8.213 | 65.3 | .000 |

It can be seen in Table 2 that $t_{observed}$ is higher than $t_{table}$. Therefore, it can be concluded that one-sided test shows 1.67 so that $t_{observed}$ (8.213) $\rangle$ $t_{table}$ (1,67) with 0.05 level of significance n-1=35. In conclusion, the difference of means is significant. At the same time, $H_0$ is rejected and $H_1$ is accepted. In the other words, the developed teaching model using MOODLE e-learning for academic writing skill in Bahasa Indonesia classes is more effective in improving students' academic writing skill.

This result may be consistent to study by Extxebarria, Garay, and Romero (2009); Syamsudin and Alamin (2014); Adas and Bakir (2013); Chan et.al. (2013) which stated the similar findings. MOODLE e-learning can enhance the quality of process and result of teaching academic writing.

The developed model of teaching stimulates students to develop independence and autonomy in finding knowledge and motivate themselves to self-learning. From the phase of exploration, they can independently find the theories and concepts related to the discussed topics using internet. During this phase, they choose and select learning sources they have. The similar finding also revealed on the research by Kirkpatrick and Klein (2016). They found that internet learning sources requires students to activate their critical thinking when getting a large amount of information.

In addition, this developed model can also implement the principles of teaching writing directly. The most interesting point during the implementation of this model is that the students feel very enthusiastic and challenging in planning their writing using mind maple software. They creatively brainstorm ideas and they develop after comments and assessment from peer and the lecturer on workshop feature. Almost the same encounter occurs on the phase of recreation composition.

Moreover, the research findings show that the students are able to produce good writing products. This is because some reasons. At first, students have well-planned writing draft. Not only that, the assessment from themselves, peer, and the lecturer improves their writing products. And the third reason, the entire students' writing products are published through workshop feature that is accessible for all. It then makes students try to submit their best writing.

The effectiveness of MOODLE in improving writing skill has been proved not only by this present research. Some higher education and institutions have applied MOODLE for their academic writing classes. For example, research by Wulandari (2016) under the title "MOODLE-Based Learning Model for Paragraph Writing Class". This research found that the developed model using MOODLE has improved the students' abilities in writing paragraph in Sanata Darma University. Secondly, study by Adas dan Bakir (2013) with the title "Writing Difficulties and New Solutions: Blended Learning as an Approach to Improve Writing Abilities". This study aimed at finding out the effectiveness of MOODLE in teaching writing at one university in Palestine. Moreover, Chan, Pandian, Joseph and Ghazali conducted a research with the title "Teaching Business Writing Using Wiki: Online Collaborative Writing". Their research was to figure out the effectiveness of wiki MOODLE in teaching writing particularly company profile and business reports in Universitas Sain Malaysia. Furthermore, research by Li Zhang and Yu Sheng (2014) in Midwestern American University

with their article "Evaluating an Academic Writing Course-based on an Integrated Model". They did this research to evaluate academic writing course for ELS learners helped by technology which is MOODLE.

Nonetheless, there are also some difference and similarity between this present research and the previous one. The similar aspect is that this current research has proven its effectiveness in improving academic writing skill based on effectiviness test. At second, both this current research and previous research utilize material and activity features on MOODLE. The third point is all research exploits teaching writing. And the fourth, the students who took part on the research gave positive responses during the teaching process. On the other hand, this current research comes also with distinctive point compared to the previous research. The developed model on this current research introduce teaching structure which mixes the offline learning and web-based learning by implementing the principles of writing process approach (pre-writing, whilst writing, and post-writing), the teaching characteristics of KKNI, and the aspects of E-Learning. In addition, the developed model adapted and modified creative productive teaching model particularly its structure of teaching. The second is that this research also utilized Mind Maple Software in planning the writing products so that the students were more enthusiastic to write their drafts. The third point, this current research employed activity feature called Workshop. This feature is very helpful and compatible with the characteristics of teaching writing. Either lecturer or students can grade the writing product using the clear indicators provided by a coloum for comment in each indicator. Besides, this feature can also publish all students' writing products, grades, and comments from both peers and lecturer. The last distinctive point on the research is that the video for teachings were specifically made in camtasia studio format. The vidoes were included only for the developed model of teaching based on the need analysis of students and lecturer.

## 4 CONCLUSION

After testing the T-test, it shows that $t_{observed}$ is higher than $t_{table}$. Therefore, there is any significant difference of means scores between experimental and controlled classes. In conclusion, the developed model of teaching using MOODLE e-learning for academic writing purposes in Bahasa Indonesia classes is more effective to improve the students'

academic writing skill at Sriwijaya University, Indonesia

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