PROBLEM-BASED LEARNING APPLICATION TO IMPROVE STUDENTS' ABILITY EDITING

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Abstract
This research aims to know the implementation PBL based on technology on boosting students’ editing competence in University of Muhammadiyah Purwokerto. The advancement of technology made changing in students’ habit rapidly. They rarely reading books or newspaper instead of cellular. Everyone can write if they read a lot of information. When the students can not write, they got difficulty to edit text. That’s why it was important to use technology on editing subject in semester 5 PBSI-UMP. The population was 79 students in two classes by random sampling class A as experiment class. The method used experiment by mixed quantitative and qualitative data. The instruments are questionnaire and test. The calculation showed sig. Levene’s test for Equality of Variances 0.264>0.05 means hypothesis was accepted. So, PBL based technology effectively improved students’ editing competence.

Keywords: implementation; student centered learning; technology; competence; editing

Introduction
The development of science and technology increasingly entered the industrial era 4.0. This era opens up many job opportunities that so far have not emerged, such as programmers, online trading, online editing services, and many more (Birkel, Veile, Müller, Hartmann, & Voigt, 2019). Education on campus should be able to bring students closer to being more prepared to face many challenges in the world of work (Nurlina & Fauzan, 2021). When a lot of work begins to be replaced by machines and robots, lecturers and students must be creative in improving their abilities and skills. We cannot avoid technological advances but must be able to master and use them to maximize the mind. The habits of writing on social media with beautiful letters, symbols and abbreviated words cause students not to care about good and correct Indonesian (Ayu Sekar Arum, 2018). The development of slang, which should
complement and enrich the language, actually backfires, which damages students' language comprehension. They are unable to distinguish between Indonesian which is good and which is wrong (Asri, 2012).

Lecture on Text Editing has been carried out using lecture and face-to-face methods (Kloos, Muñoz-Merino, Alario-Hoyos, Ayres, & Fernández-Panadero, 2015). Students can understand the material well in terms of grades for several semesters where students who score above B > 50% of the total number of students. A good GPA is more on the cognitive aspects of text editing theory while motor skills (practice) editing are still <50%. This is evidenced by the many theses of PBSI students who still do not pay attention to PUEBI (General Guide to Spelling Indonesian). Error writing capital letters, decapitation of words, placement of punctuation is still visible in student thesis, especially in the initial guidance. The lecture method so far has not accommodated enough time for students to practice text editing (Prasetyo, 2010).

A student-oriented learning approach is a learning approach that places the subject of learning and learning activities of a modern nature (De Vries, van de Grift, & Jansen, 2014). Students have open opportunities to do creativity and develop their potential through activities directly in accordance with their interests and desires (Rusman, 2010). The application of this learning through various essential skills includes: (1) effective oral and written communication, (2) logical, critical, and creative thinking, (3) curiosity, (4) mastery of technology and information, (5) development personal and social, and (6) independent learning.

(Asri, 2012) stated that a student-centered classroom, or student-centered learning environment, is one where the focus of instruction is shifted from the teacher to the student, with the end goal of developing students who are autonomous and independent, by placing the responsibility of learning in the hands of the students.

Learning must involve the full potential of the five senses and potential intellectual abilities. Designing PBL learning has at least 3 outcome variables, namely effectiveness, efficiency, and visual appeal can be seen in the picture below (Sulaiman, 2011):
Figure 1 Taxonomy of Teaching Variables

For this reason, the Problem Based Learning program is implemented with e-learning to facilitate students in practicing editing anywhere and not limited to the classroom (Yulianingsih, U&S, 2013). More people think that PBL in online learning is more difficult than in classroom and this study can prove that it is more fruitful to implement.

Methods

This type of research in this research is quantitative-qualitative research using experimental methods (Creswell, 2016). Quantitative research is research that uses numbers as research findings and data analyzed using statistics. Some methodology experts such as (Moleong, 2013) suggest a qualitative method as a research procedure that produces descriptive data in the form of words or verbally from people and observable behavior. Quantitative-qualitative research is a combination of the findings of numbers and descriptions so that they are able to describe the results of research comprehensively. While the experimental method is a research method used to look for the effect of certain treatments on others under controlled conditions (Sugiyono, 2014). The design used in this study is the pre test and post test control group design.

There are 79 semester 5 students taking Text Editing courses which are divided into two classes. The sampling technique with random sampling is drawing which class will be used as the experimental class and the control class. The result is that class 5A is chosen as the experimental class and class 5B becomes the control class.

To support research, several research instruments are needed, namely questionnaires and tests (pre-test and post-test). The questionnaire contains 25 questions that can reveal three things, namely learning services, accessibility of learning resources, and the quality of teaching materials. The test is in the form of discourse text to measure students' ability to edit into text that is properly seen from the use of uppercase letters, punctuation, and choice of words.
Data were analyzed using Anova 21 statistical test and hypothesis testing to measure the effectiveness of online lectures. The results of the questionnaire were analyzed with the help of SPSS and described so as to reveal the students' perceptions of online text editing courses (Bryman & Cramer, 2009).

Results and Discussion

Implementation of lectures 16 times in one semester with details of 10 face-to-face meetings, 4 online lectures, 1 mid-semester, and 1 semester-end exam. Before the lecture begins, the lecturer gives pre tests to students in class 5A and class 5B in the form of discourse texts and they are asked to edit the text.

A. Student Perceptions of Text Editing Online Lectures

Students work on a questionnaire containing 25 questions and are divided into three parts, namely learning services, accessibility of learning resources, and the quality of teaching materials. The results of the questionnaire were visualized and described as follows:

![Figure 2 Learning services](image)

Graph 1 shows how students perceive the learning services provided by lecturers in Text Editing lectures. First, lectures conducted by lecturers on the https://onclass.ump.ac.id system were felt to be easy to follow (95%) and students who had difficulties (5%). Lecturers can change the instructions given so that they are easier to understand. Secondly, students think that interesting content (100%) means that they like the presentation of the material provided. Third, students participate in online classes very often (16.2%), often (78.4%), and quite often (5.4%). This shows good student participation because no one has answered never.

Fourth, students feel like in online classes in the presentation and discussion section (18.9%), the online section (13.5%), the use of media (22%), relationships with lecturers (0%), all sections (43%), and others (0%). Students do not have direct
contact media with lecturers so they need to activate chat forums so that students can chat at any time such as face-to-face lectures. Fifth, students do not like independent interactions (24%), online participation (8.1%), time management (14%), none (51%), and others (5.7%). Sixth, students feel that lecturers have the ability to control their learning progress in online lectures (86%) and not (14%). Seventh, students think that lecturers can record their activities (78%) and not (22%). Eighth, students described the online college experience as pleasant (97.3%) and unpleasant (2.7%).

![Figure 3](image)

**Figure 3 Accessibility of Learning Resources**

Ninth, students can discuss with other students in online lectures (57%) and not (43%). Tenth, students can discuss with lecturers (59%) and not (41%). Eleventh, students commented on discussion forums (100%), twelve students participated in discussion forums: very often (67.8%), often (27%), rarely (5.5%) never (0%). Thirteenth, comparison of activities in online lectures compared to face-to-face lectures: more online (51.4%), same (24%), more face-to-face (24.3%), and rarely both (0%). Fourteenth, ease of accessing learning resources shared by lecturers (100%). Fifteenth students feel comfortable with online assignments (100%) and the sixteenth online assignments are easy to manage (100%).
Seventeenth, the preparation of logical and systematic teaching materials according to planned learning objectives (100%). Eighteenth, teaching material presented by lecturers has a wide and in-depth coverage (95%) and answers no (5%). Nineteenth, lecturer teaching materials can help students learn independently (97%) and answer no (3%). Twenty, teaching material is equipped with examples and illustrations that are interesting (95%) and not interesting opinion (5%). Twenty one, contextual and up to date teaching material (100%), the twenty two materials use simple language and easy to understand (97%) and which states difficult (3%), and twenty-three materials are accompanied by summaries (97%) and those that are not (3%). Twenty-four, material accompanied by references or references, (100%) and twenty-five, the material is inserted questions or exercises to measure understanding (97%) and states no (3%).

The results of the questionnaire have shown how the online lecture process can be carried out properly and smoothly. Some students (3%) who disagreed showed a lack of communication so they did not understand the question questionnaire. Improvements and follow-up to online lectures must continue to be done so that the online learning process can be carried out by all lecturers with the distribution of the right schedule (Medriati & Risdianto, 2020).

B. The Effectiveness of Online Lectures to Improve Student Editing Ability

The Text Editing course has 16 meetings with 14 details for lectures (both online and face-to-face), one mid-semester, and one semester-end exam. At the first meeting, the lecturer gives a pretest and the results are as follows:
Table 1 Pre Test Average Score

<table>
<thead>
<tr>
<th>No</th>
<th>Aspek Penilaian</th>
<th>Kelas 5A</th>
<th>Kelas 5B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Memahami diksi (pilihan kata)</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Penggunaan huruf capital</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Penggunaan tanda baca</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Memahami koherensi antar kalimat</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Memperbaiki kalimat sesuai dengan tata bahasa yang baik dan benar</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Jumlah rata-rata nilai</td>
<td>65</td>
<td>65</td>
</tr>
</tbody>
</table>

Pre-test results are still unsatisfactory because an average of 65 shows that new students have achieved C+ grades. For this reason class A was given the technology-based PBL lecture treatment and class B kept meeting face to face as usual. Online lectures are held four times and then given a post-test with the following results:

Table 2 Test Post Average Score

<table>
<thead>
<tr>
<th>No</th>
<th>Aspek Penilaian</th>
<th>Kelas 5A</th>
<th>Kelas 5B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Memahami diksi (pilihan kata)</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Penggunaan huruf capital</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Penggunaan tanda baca</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Memahami koherensi antar kalimat</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Memperbaiki kalimat sesuai dengan tata bahasa yang baik dan benar</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Jumlah rata-rata nilai</td>
<td>77</td>
<td>70</td>
</tr>
</tbody>
</table>

From the results of the post test above seen an increase in both classes both the experimental class (12 points = 16%) and the control class (5 points = 6%). That is, the increase in the experimental class was higher by using technology-based PBL compared to the increase in the class face to face.

The next step is finding Thitung. Before searching for Thitung, you must first test the normality of the data. Here is a test of data normality between the control class and the experimental class.

Table 3 Data Normality Test

<table>
<thead>
<tr>
<th>Kelompok</th>
<th>Kolmogorov-Smirnov(a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hasil Belajar kelas Eksperimen</td>
<td>0.111 39 .200*</td>
<td>0.943 30 0.108</td>
</tr>
<tr>
<td>kelas Kontrol</td>
<td>0.162 40 0.042</td>
<td>0.908 30 0.013</td>
</tr>
</tbody>
</table>

\(a\). This is a lower bound of the true significance.

*. Lilliefors Significance Correction
Based on the normality test table above, it is known that the df or sample from each class is 39 and 40. While sig. for the experimental class of 0.108 and the value of sig. for the control class of 0.013. Because the value of sig. from each class > 0.05, then as the decision making in the Shapiro Wilk normality test above, it can be concluded that the learning outcomes of the control class and experimental class are normally distributed. After the data is declared normal the next step is the T-Test. Consider the following table.

Table 4 Uji T
Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>T</td>
</tr>
<tr>
<td>Hasil Belajar Menulis Teks Prosedur</td>
<td>Equal variances assumed</td>
<td>1.27</td>
<td>0.2</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>3.7</td>
<td>57.0</td>
</tr>
</tbody>
</table>

Based on the table above it can be seen that the value of sig. The Levene's Test for Equality of Variance is 0.264 > 0.05. Then the data is said to be homogeneous or the same. So there is the Equal Variances Assumed. Based on the table it is known that the value of sig. (2-tailed) 0.000 < 0.05. So it can be said that Ha is accepted and Ho is rejected or it can be said that there is a significant difference between student learning outcomes of the experimental class and the control class. Thus the application of technology-based PBL has a significantly positive impact compared to classes that do not use it. Then from the table it can be seen that the Mean Diffense value is 16.83333. This value is the average difference between the experimental class and the control class. 77 - 70 = 10, the difference is 7.92955 to 25.73711 (95% Confidence Interval of the Difference).

Conclusion
Technology-based Student Learning Center lectures can significantly improve student editing skills. Student activities can be more directed and active so that they can
use the device to study. The implementation of technology-based learning can be combined with face-to-face lectures to give lecturers the opportunity to instill character values. Students can learn and improve their editing competence by using online learning and PBL method. They have self-confidence to write and edit in news. This competence can help them to teach students. Editing is one of fruitful competence to master how to teach Indonesian.
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