Online Social Learning Platform vs E-Learning for Higher Vocational Education in Purpose to English Test Preparation

Arta Uly Siahaan¹, Satriya Bayu Aji², Condra Antoni³, and Yosi Handayani⁴
¹Politeknik Negeri Batam, Batam, Indonesia, (e-mail) artauly@polibatam.ac.id
²Politeknik Negeri Batam, Batam, Indonesia, (e-mail) satriya@polibatam.ac.id
³Politeknik Negeri Batam, Batam, Indonesia, (e-mail) condra@polibatam.ac.id
⁴Politeknik Negeri Batam, Batam, Indonesia, (e-mail) yosi@polibatam.ac.id

Abstract
The purpose of this research intended to compare two tools used for teaching and learning in the process of English test preparation for vocational higher education students. Online social learning platform as the tool for experimental group and e-learning for the other group. This intention happened based on the need analysis in internal environment of State Polytechnic of Batam. The researcher found the urgency of English certificate as diploma supplement which is determined by Indonesian government, in this case the institution implemented TOEIC certificate. Most of the students still cannot meet very well the standard of graduation from vocational higher education, about 49.23 % of students are still included into intermediate level and the rest are elementary and novice level. Online social learning platform was funded by the institution, it was suggested as the alternative for the lecturer to prepare the students in English test and also can be accessed by the students independently. This research involved 4 groups of students from Informatics Department with 2 levels of class namely intermediate and elementary level. In intermediate level, the results showed that there was significantly increased with value was smaller than 0.05 meant that experimental group had better score than control group. In contrast, for elementary level, it was found that there was no significant difference between the students who were taught by using e-learning and online social learning platform.

Keywords: online social learning platform, e-learning, comparative study, vocational higher education, English test preparation

Introduction
In this global era, all graduates should be able to compete both with other graduates and the campus itself. It is only can be followed by those who have best knowledge, competency and soft skills. There is an important skill to be accomplished by the graduate to complete their skills namely English communication skill. Mastering English become a very important thing since this is one of international language which is used by all nations globally. To equip the students for this competency, all college for all departments design English as a general course without exception. Recently, the government suggest all of vocational higher education graduates to have supplementary diploma. One of them is English certification. State polytechnic of Batam as the only one state Polytechnic in Batam implements this government regulation. All of the students who graduates from this campus must take English proficiency test namely Test of English for International Communication (TOEIC). It supports the mission of State Polytechnic of Batam as a superior and competitive institution in Southeast Asia area at 2025. There are two courses designed to help the students for English preparation, the two courses are English I and English II. Before these two courses are compose, mapping test was conducted to investigate students’ initial competency and it is found that the students’ score is still low. Graddol (2007) stated that the most important purpose of English language evaluation is to monitor and improve student’s competency. It is important to provide the strategy or alternative material to make the average TOEIC score higher. This mapping test is conducted for all generation every year. At 2015, there were 522 students from 8 study programs. It was found that for general professional (score 905-990) was 0% (0 students), level advance working (785-900) was 0.96 % (5 students), level basic working (605-780) was 17.62% (92 students), was level intermediate (405-600) was 49.23 % (257 students), elementary (255-400) was 28.35 % (148 students) and for level novice (10-250) is 3.83% (20 students). So, based on this data, it was found that most of the students included to intermediate level. In addition, there were 1134 students took mapping test in 2017; it was found that 826 students (73%) got the elementary level, 246 students (22%) were categorized as intermediate level. Meanwhile, for basic working
was 58 students (5%) and for public speaking level were only 4 students (0.4%). Graphic 1 shows the result of English mapping 2017 for all departments.

![English Mapping 2017](image)

**Graphic 1: Result of English Mapping 2017**

At the previous research (Siahaan, 2016), the needs of English study were analyzed at informatics department, the result is integrated with all language competency, creating indicator, evaluation and duration needs to achieve standard competency. Multimedia interactive was developed to support this course as well as course book. To start up all of those previous idea, the researcher composed questionnaire with three basic questions namely How important to master English/ why do learn English and What are the obstacles to learn English.? These question were still very useful to start up the idea in purpose to prepare the best supplementary media, devices or teaching learning strategies for the students to make them more well prepared facing English test proficiency. Following sentences mostly exploded by the students.

**Q1. How important to master English/ why do learn English?**
- It is very important since English is a tool for global communication
- English is an international language
- Most of the companies search for employee who can speak in English.
- The demand is high, Batam is near to two big countries, Malaysia and Singapore. Mastering English is very important.
- Technology force all of people to understand this language.

**Q2. What are the obstacles to master English?**
- Need more environment to practice it. No friends to talk or practice English.
- Pattern and grammar are difficult to learn.
- Found so many difficult words that makes sentence hard to understand
- In Indonesia, English is not a common language to use for communication (it is a foreign language)
- Not really confident to use this language in communication environment.

Those 10 responds where the researcher try to put 5 responds for question 1 and 5 responds for question 2. Those are highly frequency answer from the students. By evaluating the students through giving English test proficiency, college expected the students’ competency can be measure and seen clearly. Then based on the result of the analysis, it could be thought deeper what could be the best strategy for them to encourage the students to achieve the better competency. Online social learning platform and e-learning were provided by the institution as the alternative for teaching and learning media in purpose to prepare the students in English test. Since according to Goodwin (2012), the development of interactive technology introduced a new generation of educational tools, that have been praised as revolutionary devices that hold great potential for transforming the traditional learning environments. Meanwhile, according to Maltz et al. (2005), the term ‘e-learning’ is applied in different perspectives, including distributed learning, online-distance learning, as well as hybrid learning. Arkorful and Abaidoo (2014) stated that e-learning refers to the use of information and communication technologies to enable the access to online learning/teaching resources. This research revealed that e-learning is an effective tool that involved the use of digital tools for teaching and learning. It makes use of technological tools to enable learners study anytime and anywhere. In addition, the internet has become one of the vital ways to make available resources for research and learning for both teachers and students to share and acquire information (Richard and Haya, 2009). A lot of devices nowadays provided and it can be accessible anywhere and every time, but it is clearly stated that ELT material should be drive by principles of language acquisition and that ideally all units of material should be principled, relevant and coherent (Tomlinson, 2006).
For those reasons, even though material at e-learning and online social platform already provided in huge number, but the lecturer need to monitor the process that conducted by the students. Low (2017) revealed the result of his research that the implementation of e-learning helped to improve students’ learning achievement as indicated by almost 94.64% with higher scores in summative test. This study was investigated the effect of using online social learning platform compared to the students who used e-learning. The research question formulated in this case are “Do the English test score of the students in Elementary level differ significantly when comparing between social learning platform class and e-learning class?” and “Do the English test score of the students in Intermediate level differ significantly when comparing between social learning platform class and e-learning class?”

**Research Method**

Based on the problem revealed at the previous section, the researcher decided to solve the problem by conducting an experimental research. This study implemented a quantitative approach for data analysis. McGowan (2011) stated that a well-designed experiment is the best method for establishing efficacy of any intervention, medical, behavior, or educational in nature. An independent samples t-test was used to examine the difference in students’ English proficiency between control group and experimental group. The treatment was learning English by using e-learning and social learning platform in 14 meeting (once a week). Picture 1 shows the experimental study implement in this research.

![Picture 1: Experimental study which implemented in this research](image)

**Participants**

The implementation of this research involved 4 classes of the student from informatics department. This departments consist of 3 study programs namely informatics study program, multimedia and networking engineering study program and geomatics engineering study program. This class categorized into two level of English ability namely elementary and intermediate level. For elementary level in experimental class and control group, there were 28 students are involved. Meanwhile, for intermediate level there were 26 students for each control and experimental group. These participants were assigned directly by the researcher because this classes were more accessible compare to the other departments.

**Instruments**

The researcher developed two instruments as the tools to collect the data. The instruments were pre-test (for mapping the level of students’ category) and posttest (final test) that developed online (the test was provided in e-learning). Posttest was conducted when the students had final test for English I course. All of the level and categories had the same questions to answer. The questions were TOEIC like, it consisted of 100 questions for reading comprehension, so did listening comprehension. It took 75 minutes for reading section and 45 minutes for listening section.

**Data collection Procedure**

The teaching and learning process was conducted as long as 1 semester (6 months, it contained 14 meetings). Table 1 showed the different treatment for control and experimental group especially for the content of the material.

<table>
<thead>
<tr>
<th>Table 1 Data collection procedure and content of material for control and experimental group.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control group treatment</strong></td>
</tr>
<tr>
<td>Lecturer input the material for listening and reading practice. Every time and everywhere can be accessed and the lecturer can add and reduce the material. It could be customized by the lecturer</td>
</tr>
</tbody>
</table>

---

*Advances in Social Science, Education and Humanities Research, volume 411*
Content of e-learning

**Course outline**
- Listening Photo (preposition 1-8), similar sounding A and B, Photo strategy practice and Review

**Question response**
(when, where, why, how, auxiliary, and review)

**Conversation**
- Occupations- strategy practice
- Activities- strategy practice
- TOEIC test practice
- Location- TOEIC test practice
- Reasons- TOEIC test practice
- Review

**TALK**
- Advertisement
- Weather
- News
- Recorded announcements
- Business announcement
- Review of short talks
- Practice and Exercise

**Incomplete sentences**
- Verbs of sensing
- Exercise

**Text completion**
- Overall Reading and Listening section practice

---

Features consist of:

a. Courses
   - TOEIC Subscription: Listening and Reading (Introduction (How to use this course, Overview of the TOEIC Test); Listening Section (Guide to the TOEIC test Listening Section, Part 1: Photos, Part 2: Question response, Part 3: Conversations, Part 4: Talks, Listening Practice Test, Audio Scripts); Reading Section (Guide to the TOEIC Test Reading Section, Part 5: Incomplete Sentences, Part 6: Text Completion, Part 7: Reading Comprehension, Reading Practice Test.
   - TOEIC Subscription: Practice test 02 (Practice mode).
   - It starts from Part 1-9.
   - TOEIC Subscription: Practice test 03 (Exam Mode).
   - It starts from Part 1-9.
   - TOEIC Subscription: Practice test 03 (Practice mode).
   - It starts from Part 1-9.
   - TOEIC Subscription: Practice test 02 (Exam Mode).
   - It starts from Part 1-9.
   - TOEIC Subscription: Speaking and Writing (Introduction, TOEIC Speaking and TOEIC writing)

b. My scores
   The learners can see in “My scores” the scores saved for exercises that the learner has finished. Even if the learner has got a perfect score for each section/exercise. Their total score is shown for what they have attempted so far- not out of the total that they will get if they complete all the sections of the unit.

c. Study group
   As teacher or lecturer, Study Group can be created to allow the students to submit their completed exercise for speaking and writing exercise (for the production of language)

d. My account
   This button is on the home screen, any users can change any of their details (first name, family name, email address and password)

---

**Results and Discussion**

Comparing the using of social learning platform and e-learning as the tools for preparing English test was becoming the purpose of this research. Quantitative analyses were used to answer the research questions. It presented whether the students in intermediate level who learnt by using social learning platform had better English proficiency score compared to e-learning class. Further the other level was elementary level, that compared students’ score for English proficiency for social learning platform class and e learning class. An
independent sample t-test was conducted to find out this answer. Picture 2 and 3 show the interface design for online social learning platform and e-learning class.

![Picture 2: Social learning platform interface for experimental group](image1)

![Picture 3: Moodle (e-learning) interface for control group](image2)

In elementary level, there was no significant difference between the achievement of proficiency test (TOEIC TEST) between the two groups, as shown by the result for control (M=568, SD=163.125) and experimental group (M=641, SD=161.125); (Sig. (2 tailed) .096>.05. This result indicates that there was no difference between the score achievement of the students in control and experimental group for elementary level. Meanwhile, in intermediate class, it is found that the result of students’ English test differed significantly between social learning platform class and e-learning class. The result showed that for control (M=623, SD=128.816) and experimental group (M=799, SD=68.986); (Sig. (2 tailed), .000<.05. This result indicates that students who use social learning platform achieve higher English score test statistically significant comparing to e-learning class. It is clearly presented at Table 2 and 3 for the summary of elementary and intermediate level for independent t-test for experimental and control group.

<p>| Table 2. Summary of Elementary Level for Independent T-test between Social Learning Platform and E-learning Class |
|---------------------------------------------------|-----------|--------|----------|----------------|----------------|</p>
<table>
<thead>
<tr>
<th>Result</th>
<th>N</th>
<th>M (SD)</th>
<th>T</th>
<th>Df</th>
<th>Sig. (2 tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>28</td>
<td>568 (163.125)</td>
<td>-1.695</td>
<td>54</td>
<td>.096</td>
<td>-73.571</td>
<td>43.401</td>
</tr>
<tr>
<td>Experiment</td>
<td>28</td>
<td>641 (161.654)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3. Summary of Intermediate level for Independent T-test between Social Learning Platform and E-learning Class

<table>
<thead>
<tr>
<th>Result</th>
<th>N</th>
<th>M (SD)</th>
<th>t</th>
<th>df</th>
<th>Sig. (2 tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>26</td>
<td>623 (128.816)</td>
<td>-6.113</td>
<td>50</td>
<td>.000</td>
<td>-175.192</td>
<td>28.658</td>
</tr>
<tr>
<td>Experiment</td>
<td>26</td>
<td>799 (68.986)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As what have discussed at participants’ part, in pretest control group for elementary level, there were 26 students involved and all of them are categorized into elementary level. It was decided when all of the students took mapping test at their first year as the students at Politeknik Negeri Batam. After conducting the treatment (14 meetings, once a week) where the students used e-learning, it was found that the level of the students become different. There were 6 students who kept staying at the same level, 9 students became intermediate level and 12 students for basic working level and 1 student jumped up to public speaking level.

For social learning platform class, it involved 28 students in pretest then for posttest, there were 5 students kept staying at the same level, 3 students as intermediate level, 16 students jumped up to basic working level and public speaking level were 4 students. In intermediate level, the students involved were 26 students. After treating by using e-learning, 1 student went down into elementary level, 10 students had the same position in intermediate level, while 11 students went to basic working and 4 students increased the level into public speaking. For social learning platform class, after implementing this treatment all of the students’ score increased and had the category of basic working level (12 students) and public speaking level (14 students). Table 4 shows the result of after implementing the treatment for each class.

Table 4. The results of treatment’s implementation for each group

<table>
<thead>
<tr>
<th>Level (total of students) and Groups</th>
<th>Elementary</th>
<th>Intermediate</th>
<th>Basic Working</th>
<th>Public Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Control Group for Elementary Level</td>
<td>28 students</td>
<td>-</td>
<td>12 students</td>
<td>1 student</td>
</tr>
<tr>
<td>Posttest Control Group for Elementary Level</td>
<td>6 students</td>
<td>9 students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest Experimental for Elementary Level</td>
<td>28 students</td>
<td>-</td>
<td>16 students</td>
<td>4 students</td>
</tr>
<tr>
<td>Posttest Experimental for Elementary Level</td>
<td>5 students</td>
<td>3 students</td>
<td>11 students</td>
<td>4 students</td>
</tr>
<tr>
<td>Pretest Control Group for Intermediate Level</td>
<td>26 students</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posttest Control Group for Intermediate Level</td>
<td>1 student</td>
<td>10 students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretest Experimental for Intermediate Level</td>
<td>26 students</td>
<td>-</td>
<td>12 students</td>
<td>14 students</td>
</tr>
<tr>
<td>Posttest Experimental for Intermediate Level</td>
<td>-</td>
<td>-</td>
<td>12 students</td>
<td>14 students</td>
</tr>
</tbody>
</table>

By conducting this research, as in Table 5 the researcher summarized several notes regarding the comparison between e-learning class and social learning platform class.

Table 5. The implementation of social learning platform and e-learning class

<table>
<thead>
<tr>
<th>Classroom Discussion</th>
<th>Social learning platform</th>
<th>E-learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can create study group which is facilitated by the lecturer.</td>
<td></td>
<td>The lectures is a facilitator, the students can talk at least as much as or more than the teacher.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning Process</th>
<th>Social learning platform</th>
<th>E-learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students can access this platform every time and everywhere but should be monitored by the lecturers.</td>
<td></td>
<td>Both individual or group can be created for students’ activity. Lecturer can determined it freely.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject Matter</th>
<th>Social learning platform</th>
<th>E-learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content was provided by the developer. Students can only assess what provider had provided.</td>
<td></td>
<td>The students can participate in determining the subject matter, the studying is based on various sources of information provided in e-learning. Lecturer provides based on the course outline.</td>
</tr>
</tbody>
</table>
Table 5.

<table>
<thead>
<tr>
<th>Emphases in the Learning Process</th>
<th>The lecturer should keep control the learning process. This platform consists of many contents. The students should use this platform step by step.</th>
<th>The students learn “how” and less “what”; the learning includes research study which combines searching for and collecting information from web data banks and authorities on the communications network; the learning is better connected to the real world, the subject matter is richer and includes material in different formats.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>The development of technology nowadays giving high motivation to the students to access this platform.</td>
<td>The students’ motivation is high due to the involvement in matters that are closer to them and to the use of technology.</td>
</tr>
<tr>
<td>Teacher’s Role</td>
<td>Monitoring the students working.</td>
<td>The teacher directs the student to the information.</td>
</tr>
<tr>
<td>Location of Learning</td>
<td>Can be everywhere, theoretical, exercise and practice already provided completely</td>
<td>The learning takes place with no fixed location. Usually, the lecturer have to provide the instruction and</td>
</tr>
<tr>
<td>Lesson Structure</td>
<td>Lecturer can monitor the steps but the students can access repeatedly.</td>
<td>The structure of the lesson is affected by the group dynamics, it is students’ center and more active learning.</td>
</tr>
</tbody>
</table>

Conclusions

The aim of this study investigated whether the implementation of social learning platform could enhance students’ English proficiency especially in this case for TOEIC score. In intermediate level, the results showed that there was significantly different with value was smaller than 0.05 meant that experimental group had better score than control group. In contrast, for elementary level, it was found that there was no significant difference between the students who used e-learning and online social learning platform for English test preparation.

Acknowledgments

To God be the glory for this research finally accomplished and published through this paper. The researchers would like to send the gratitude for the management of Politeknik Negeri Batam for giving us chance and fund this research. Also thank to research center and community service department for organizing this agenda. To all friends and colleagues who involved into this research, may the future research and publishing still keep collaborating with you all.

References

Arkorful.V. & Abaidoo, N. (2014). The Role of E-learning, the Advantages and Disadvantages of its Adoption in Higher Education.
Goodwin, K. (2012). Use of tablet technology in the classroom. NSW Department of Education and Communities