Investigating Blended Learning Effects toward Students' Literacies for Higher Education Setting

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Abstract

The present study aims at investigating blended learning effects towards students' accomplishment in terms of participants' literacies in terms of reading and writing score and their motivation of attending the model of learning. It employed experimental study which concerned on two groups pre-test post- test research design to find out students' progress before and after blended learning application. Furthermore, two kinds of test; reading and writing test also distributed to the experimental and control groups which are also supported to five Likert scale questionnaires. The data found indicates that the participants had got progress in both writing and reading tests, evenly positive perspectives also expressed toward applying blended learning in classroom practices. The study specially implies recommendation for further pedagogical application in English classroom practices and educational context at general.

Keywords: blended learning; literacies; higher education setting

Introduction

Literacy cannot be apart from human life needs for the whole aspects starting from waking up to sleep. In educational context, literacy is the core area which is mastered by learners in every single level of education. National Literacy Trust (2017) argues that it is someone competence both verbal and written to communicate others so that the interaction runs streamlined and effective. The learners then are called to be literate if they indicate to switch information each other both spoken and written for fulfilling their daily needs (Cambridge Assessment, 2013). Further, it is a part of foundation of learning which has great impact toward students' success. (Mason, 2017) wrote that his research on the related field assumes that students with outstanding literacy, they proved to comprehend fully on the subject learnt and have substantial curiosity for their process of learning. The aforementioned statements are summed that literacy is the part of the learners' needs to meet worldwide demand of both educational and casual contexts. It generally is defined as the reading and writing competence, but it is growing up not only for scope limitation but it is closely related to the life demands for whole area in learning process.

Moreover, Indonesian government through its ministry of education and culture affairs set out the literacy level which was realized into its curriculum. The realized literacy curriculum is reciprocating to the literacy offered by Myers (1996) in four level of literacy: performative, functional, informational and epistemic. The first term agreed that students have to achieve language for spoken purpose to indicate their understanding of English language. In Indonesia, this such of literacy is targeted for primary students who communicate English as a foreign language. Second, the forthcoming stage of literacy step must be mastered by student in Indonesia is functional one, this level demands students to use English as tool for communication such as; negotiating, expressing and demonstrating both verbal and written. This literacy is targeted for Junior high school students. In addition, the next level of literacy is informational which must be met by Senior high school students in Indonesia. This literacy asserts students to apply English as tool for giving other information in the context both academic and their daily life needs. The epistemic level is the last step of literacy must be achieved by university students in which in which they have to transform their knowledge from non-English resources to English including presentation, report and verbal and written exam.

This urgency of literacy seems inversely proportional to the fact of Indonesian literacy rate. The fact that Indonesian literacy rate was quite apprehensive. The data showed that the only 0.038% of total population in Indonesia have good literacy. It means that only the number of about four hundred thousand people in Indonesia out of two and half thousand million are literate (UNESCO, 2015). EduCenter (2016) assumed that Indonesia now is the

second lowest of literacy rate throughout the worlds. These cases mentioned were quite sorrowful which we compared with the number of Indonesian population is the also second highest in worldwide range. We can see the ration that only one-person literate per thousand people in Indonesia. Another survey was also described that contrast facts have also happened in higher educational context especially for certain private university students in Indonesia. Most of English students have poor proficiency in reading and writing. As we know that, reading and writing are the skills are closely connect with their needs. Also, nowadays the need of digital literacy rapidly increases in line with the demand of learning in 21st century (Friatin, Lilies Youlia, Etika Rachmawati, 2017).

Educational innovation is one of the government efforts in improving the quality of education especially in higher education (Widodo & Kalla, 2013). Blended learning is one of the innovation for fulfilling students' needs in learning process. Some evidences pointed out that blended learning implementation got positive response and gave beneficial impact toward students and teachers for teaching and learning process (Jeffrey, Milne, Suddaby, & Higgins, 2014). The positive impact of applying online learning and instructions showed in language learning. Then, the blended learning is one of the teaching method which is assured to be supplemental solution for classroom learning (Shih, 2010). The implementation of blended learning then provides big role for promoting students' achievement cognitively, motorically and affectively (Bawaneh, 2011). Another research also reported that the use of blended learning got positive result if it compared with the pure face to face activities during teaching and learning process (Mitchell & Forer, 2010).

To acknowledge of the previous facts of literacy and benefits provided from blended learning, for doing so, the present study concerns on the research questions: (1). Is the blended learning effective for improving students' literacies of reading and writing? The first research question is to figure out the students' improvement between pre-test and post-test on the application of blended learning. The second research question dealt with "How do students perceive on the implementation of blended learning toward students' literacies?" This research question agrees that not only students' improvement is observed, but also the students' perceptions were also examined in the application of blended learning in classroom practices.

Method

The Study Design

The present study employed experimental research design which applied true experimental pre-test and post-test proposed by (Creswell, 2007). During the classroom practices, both of experimental and control groups were distributed pre-test on reading and writing test. Further, the teaching and

learning processes of blended learning were applied on experimental group including both these classes. The blended learning model dealt with face to face learning and online learning. Learning platform was also implemented to the students for conducting online learning which form audio, visual, and audiovisual media. The portion of the online learning conducted was on off model in which a meeting for F2F class and another meeting is for online class. Meanwhile, another group was concerning on the face to face (F2F) class on the whole meeting. At the end of the class, both reading and writing posttest were also administered to the students on both groups to measure the model of learning in terms of blended learning gave significant impact toward students' achievement or not.

Instruments

The present study distributed reading and writing pre-test for students both experimental and control groups. The tests administered to both groups are the same, but the way of testing was paper-based for reading to both these groups and online for writing to experimental also paper-based to control group. After the treatment of blended learning and F2F learning was conducted, the post-tests of reading and writing were also distributed to the students to measure the effectiveness of the application of blended learning and certainly comparing the result of students' achievement between F2F classroom and blended learning classroom. Research data then measured by questionnaire of five Likert scale to figure out students' perceptions on the blended learning classroom in reading and writing classes. Inside of these questionnaires, some questions were closely related to blended learning effectivity, satisfactory and feasibility. In addition, non-structured interview was also distributed to the students both these control and experimental groups to detect in depth on the students' perception on blended learning.

Variable

The present study concerned on the variable used in the research were focusing on two variables which interconnected each other. The independent variable of the recent study was blended learning in which this model of learning affect to the improvement or students' progress. Moreover, literacies were the dependent variable toward blended learning. This so closely related to the impact from blended learning implementation. Students' accomplishment and delightful perspectives from the participants were main yield of recent study. There were two main progress had been gauged in terms of reading and writing for these groups. By implementing blended learning, the researcher considered that previous variable had affected independent variables that is literacies.

Research Participants

The research was conducted at fifth grade private university students in small city in West Java Indonesia. The total of research participants of the present study was 28 students divided into 14 students into experimental group which fully participated during the treatment and 14 other students as control group. The whole participants consisted of 8 male students and 20 females. During the tests, there were two students who did not attend the test due to the health condition in which a female student did not attend at the pre-test for reading class and another female student did not also involve at post-test for writing test. The consideration of choosing participants was Simple Random Sampling in which the researcher chose the research participants randomly based on the representative of the class. As the result, there were a class as the experimental group and another class as the control group.

Data Collection Technique

This current study dealt with tests, questionnaire and interview as the instruments for collecting the data. First, there were four tests distributed to the students during the experiments in which pre-test and post-test for both reading and writing test. For reading pre-test, paper-based reading and also writing test were distribute both experimental and control groups, while for post-test, the researcher distributed online reading test for experimental group instead of paper-based test for control group. The online writing test then conducted in writing class on the blended learning implementation but the paper-based writing test is provided for control class. The reading test yielded on the various forms were multiple choices, True and False and matching, while the writing test provided students to compose a descriptive and recount paragraph related to their academic issues. In addition, the form of questionnaire distributed were multiple choices of five with online poll. This such of collection was quite accurate because of low of subjectivity and result miscounting. Lastly, the informal and unstructured interview were imparted to randomly chosen students for the representative of the study. The researchers shared the question, the interviewee then answer freely without any limitation of the expression, time and under pressure.

Data Analysis Technique

Both of data were analyzed quantitatively with SPSS 23 with ANCOVA. By calculating the data, the t-test was figured out both reading and writing. If the t-test is more than 0.005 (5%) it means that the proposed hypotheses is not accepted which means that blended learning did not impact toward reading and writing classroom practices while if the SPSS pointed out that t-test is less than t-table indicating that students' literacies improved well by the application of blended learning. In addition, another recent research instrument was questionnaire. The researcher provided five Likert scale of multiple choices

indicated AN (almost never), N (never), S (seldom), O (often), and AA (almost always). From students' answer, then inferential analysis was done to invent students' perceptions towards blended learning implementation. Further, the interview was analyzed by qualitative approach and classification.

Results

Students' Reading Achievement via Blended Learning

Regarding to the objectives of the current study, this study was concerning on: (1) figure out the effectiveness of blended learning towards students' literacies and (2) ascertain students' perspectives on the blended learning implementation. The term of literacies here is closely related to the students' competence on reading and writing. For doing so, the present study realized reading and writing test for ensuring students' literacies betterment especially in higher education context.

Table 1. Tests of Between-Subjects Effects

Dependent Variable: Speaking Test					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2880.571 ^a	1	2880.571	9.598	.005
Intercept	108128.571	1	108128.571	360.297	.000
Blendedlearning	2880.571	1	2880.571	9.598	.005
Error	7802.857	26	300.110		
Total	118812.000	28			
Corrected Total	10683.429	27			

Table 1 shows the comparative result both of experimental and control groups on reading comprehension. The within-group comparison of the reading pre-test and post-tests cores shows that both groups, regardless of their mean, made significant progress in learning the 14 TWs (two subjects of pre-test and post- test comparing the reading pre-test scores and the post-test scores of each group; sig = 0.005, $df = 1$, $P < 0.05$; SPSS 23). This result of both tests also indicates that significant value is less than the significance value from table. This means that the null hypothesis of the present study is rejected which highlighting that blended learning gave significant impact in terms of students' improvement on reading scores after the treatment.

Students' Writing Achievement via Blended Learning

Table 2. Tests of Between-Subjects Effects

Dependent Variable: Writing Tests

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2730.462 ^a	1	2730.462	9.598	.005
Intercept	108128.571	1	108128.571	360.297	.000
Blended learning	2730.462	1	2730.462	9.598	.067
Error	7802.857	26	300.110		
Total	118812.000	28			
Corrected Total	10683.429	27			

R Squared = .270 (Adjusted R Squared = .242)

Table 2 indicates in accordance alongside with previous test. Both writing pre-test and post-test described that mean of those tests also increase from one test to others. Also, based on the data from SPSS with analysis of covariance (ANCOVA) describes that significant. Value from table is 0.067. It indicates that research hypothesis is accepted which implies that blended learning in giving new trends of ELT especially in writing contributes high effect toward students' writing. The limitation of measuring this writing was on accuracy of the assessment because the researcher needed to read students' writing with certain rubric but it was deeply related to the hearts of the researcher. Further, computer based writing is recommended for avoiding that problems.

Students' Perspectives on Blended Learning

According to the survey to 14 students of reading class and others in writing class, the data collected from their perceptions of utility on applying blended learning. That would bring the meaning that the effectiveness of the blended learning application during teaching and learning process. The researcher distributed several questions related to the research need. First, the question dealt with teacher expectation on the best use of blended learning into classroom practices. The result was quite amazing because students assume that exhilarating conditions have happened during its application. They gave positive indication on the warning on doing the best starting from planning, execution, and evaluation. It reports that 9 students out of 14 others were such high expectation during learning process and it seemed to be challenging for them to apply in digital era. Another question posed that individual learning in terms of self-regulated learning was highly recommended for its application with the various answer from the participant. Based on the data after classification, 3 out

of 14 students declared negative response which is indicated that self-regulation learning did not run effectively but it seemed in contrast that other students dealt that they really learned them to be self-regulated learner with the support from digital literacy.

More, the third question closely related to the classroom management on blended learning implementation which highlighted 72% from 14 students agreed that it gives good and effective way for delivering and transforming the project in such ways: individual, groups, pairs, offline and online. Several instructional activities were tried to be realized and they had got good atmosphere during teaching and learning process. Next question agreed with students' perceptions on the feasibility on engaging students into one projects. As the general known that they have different background from educational, financial, personality and cognitive backgrounds. Most of the participants pointed out that blended learning implementation could engage and involve them in various activities with heterogeneous conditions of students. The last but not at least, the excursion of blended learning in classroom practices in terms of the clarity of the objectives of instructional activities were also stated to measure their argumentations not only the general but also from specific and detailed point of view. They claimed that its excursions were quite well planned and organized. They could learn every single material from step to step with instructional and theoretical approaches. Lastly, the participants were demanded to give response on the feasibility of various organization on procedure activities during blended learning implementation. It reports that they gave briefly argumentation that teaching and learning practices were feasible to follow starting from warm-up activities, main activities and close activity both in F2F and online classes. The following graph showed us the percentage of students' perceptions on each item of questions distributed on the online questionnaire.

Picture 1. Students' Perceptions on Effectiveness of Blended Learning

Discussion

The following section describes further and detail information related to the result of data research in terms of students' literacies in terms of reading and writing and their perceptions on the impact of blended learning implementation during learning process in line forward with research questions.

Academic Reports on Students Literacy for Reading Proficiency

As research data described, the students' reading proficiency gave dramatically improvement during ten meetings. These facts found from the result of pre-test and post test score which is found that development happened both of tests from mean score also the score of significant value which is calculated by SPSS. From the research data, it was found that research hypothesis was accepted by means the application of blended learning which was combined two modes of learning: F2F learning and online learning. This present study was in line with the previous studies (Bawaneh, 2011) and (Kiviniemi, 2014). Also, the present study is highlight and seems to agree with previous studies in which blended learning with various models can also be applied on the previous academic settings but also it implements on the English as the foreign language academic context.

Academic Report on Students Literacy for Writing Proficiency

The similar conditions were also described during several meetings in writing class. Blended learning application had got good contribution toward academic atmosphere on writing class. As it was reported on the research data, the writing class before treatment was reported that the most dislike class due to its difficulties, participants assumed that blended learning application gave new model of learning for writing class. For doing so, it indicates from the significant difference mean score between pre-test and post-test both of control and experimental classes. Also, the score of significant value is observed that research hypothesis was quite good in explaining that the treatment gave great impact toward students' proficiency in English classroom practices. Nowadays, writing class is not merely lecturers' input toward students but also the student-centered activities were highly recommended for running the writing process run well. This finding seems to be likely agree to previous study (Comas-Quinn, 2011). The present study focused on the several activities including F2F and online learning, offline activities which emphasized on the student-centered learning.

The contrast view from author which writing class also run well by giving the treatment, but it seems that there were such limitations of the present study which cannot be anticipated: subjectivity. Subjectivity was heart-orientation which cannot be apart from human. The assessment of the writing product is fully subjectivity because the assessed participants works with supported by rubrics

but there was no exact assessment such as multiple choices items, short answer items or reading test with exact grading. To do so, the forthcoming studies are recommended to do research with similar field for solving present study problem.

Students Perceptions on Blended Learning Implementation

The present study reported the similar perceptions with some previous researches which stated that blended learning raised. First, the utility of blended learning achieved good response from students in terms of the high degree of utility which could lead students to have a positive attitude towards learning ((López-Pérez, Pérez-López & Rodríguez-Ariza, 2010). Another same report is also highlighted by (Mitchell & Forer, 2010) that the role of e-learning activities can complement even replace the role of applying the traditional modes of learning in digital era.

Conclusion

According to the present study, a significant value of agreement of reading proficiency development, writing skill improvement and positive attitude are perceived from blended learning. This learning environment then lead students to have got positive response, feedback and attitude toward learning activities which is offered on the various F2F class and online class. Furthermore, the conclusions dramatically indicate that blended learning reinforces students' understanding of the concept active learning, problem-based learning, self-regulated learning and learning community. Also, the present study suggests that blended learning nowadays is part of digital learning to be familiarized by the educators for promoting the flexibility and excellent access of education.

References

- Bawaneh, S. S. (2011). The effects of blended learning approach on students' performance: Evidence from a computerized accounting course. *Interdisciplinary Journal of Research in Business*, 1(4), 43–50. Retrieved from <http://www.idjrb.com/articlepdf/idjrbjournal51.pdf>
- Cambridge Assessment. (2013). What is literacy? An investigation into definitions of English as a subject and the relationship between English, literacy and “being literate” A Research Report Commissioned by Cambridge Assessment. *Cambridge Assessment*, (January), 24. Retrieved from <http://www.cambridgeassessment.org.uk/images/130433-what-is-literacy-an-investigation-into-definitions-of-english-as-a-subject-and-the-relationship-between-english-literacy-and-being-literate-.pdf> Retrieved on November 14, 2016.
- Comas-Quinn, A. (2011). Learning to teach online or learning to become an online teacher: an exploration of teachers' experiences in a blended learning course. *ReCALL*. <https://doi.org/10.1017/S0958344011000152>

- Creswell, J. W. (2007). Research Design: Qualitative, Quantitative and Mixed Method Approaches. *SAGE Publications*, 203–223.
<https://doi.org/10.4135/9781849208956>.
- EduCenter. (2016). 5 Penyebab Rendahnya Budaya Literasi di Indonesia - EDUCENTER. PT. Rudi Kartika Abadi.
- Friatin, Lilies, Y., Etika, R. R., (2017). No Title Blended Learning Voice: Students' Perception of Mid Transitioning into Digital Needs of Academic Reading. *Educatio: Journal of Education*, 2(2).
- Jeffrey, L. M., Milne, J., Suddaby, G., & Higgins, A. (2014). Blended Learning : How Teachers Balance the Blend of Online and Classroom Components, 13, 121–140.
- Kiviniemi, M. T. (2014). Effects of a blended learning approach on student outcomes in a graduate-level public health course. *BMC Medical Education*, 14(1).
<https://doi.org/10.1186/1472-6920-14-47>.
- Mason, P. (2017). Language and Literacy _ Harvard Graduate School of Education. Havard Graduate School of Education.
- Mitchell, P., & Forer, P. (2010). Blended learning: The perceptions of first-year geography students. *Journal of Geography in Higher Education*, 34(1), 77–89.
<https://doi.org/10.1080/03098260902982484>.
- National Literacy Trust. (2017). www.literacytrust.org.uk
- Shih, R. C. (2010). Blended learning using video-based blogs: Public speaking for English as a second language students. *Australasian Journal of Educational Technology*, 26(6), 883–897.
- UNESCO. (2015). Indonesian Literacy Rate. www.unesco.org
- Widodo, J., & Kalla, J. (2013). Visi Misi dan Program Aksi Jokowi.
<https://doi.org/10.1017/CBO9781107415324.004>