

# THE USE OF HYBRID/BLENDED LEARNING IN UNDERSTANDING OF ENGLISH STRUCTURE SUBJECT TO IMPROVE STUDENTS' ACHIEVEMENT AND THEIR DIGITAL LITERACY

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**Abstract.** This research is aimed to find out whether the application of blended learning has significant effect on the students' achievement of Understanding English Structure subject or not, and to know if the students' achievement after the application of blended learning is better than the prior knowledge of the subject. It was also to see if the application of blended learning give positive effect to the students' digital literacy. Hence, the researcher employs experimental research by giving hybrid-learning model as the treatment. It is expected that the students can achieved good score about English structure. The research involves the second semester students of English Language Education Study Program of FKIP Pakuan University. They were chosen through purposive sampling technique. Based on the result of data analysis by using ANOVA, the students' achievement in structure class was improved. Based on the t-test results it is known that the average pre-test is 63.4 and after treatment in the form of learning using a hybrid / blended learning model, the average post-test value becomes 86 so that the increase is 22.6. So that it can be stated there is a significant increase in student learning outcome scores by using hybrid / blended learning models. The positive result was also gained from the digital literacy questionnaire. Most of the students' digital literacy was improved significantly at about 10 to 20%. Therefore, it can be stated that hybrid-learning model can improve students' achievement in grammar class and also can improve their digital literacy.

**Keywords:** hybrid-learning; English structure; students' achievement; digital literacy

## I. INTRODUCTION

In the era of widespread use of Information and Communication Technology (ICT), the world of education has made many breakthroughs, one of which is the provision of blended learning courses. This Blended-learning course was originally made to answer challenges in the world of higher education such as the limited capacity of tertiary institutions; there are still many universities that do not have adequate and qualified human resources and low guarantees to meet the needs and demands of higher quality education. Therefore, blended learning courses are held which are expected to facilitate each student to access course material from other universities with competent lecturers in their fields.

One learning method that is widely used in developed countries today is blended learning. Based on Rob Hubbert's opinion, blended learning is a combination of conventional face-to-face learning by integrating technology in the form of online learning. Therefore, the implementation of the blended must be directly proportional to the strategies used by both students and lecturers who use hybrid / blended learning models [1]. Graham describes hybrid learning/blended learning as a shift from face-to-face learning which is characterized by direct interaction into learning based on technology and information that can be done by humans [2]. This opinion is reinforced by the opinions of Mason and Rennie, who add that blended learning is a combination of pedagogical, location and

technology approaches [3]. Meanwhile, Garrison and Vaughn emphasize the notion of hybrid / blended learning on the reflection needs of conventional or traditional learning processes and the importance of redesigning learning models by combining them with technology [4].

In a workshop on hybrid / blended learning organized by Sloan C, Laster, Otte and Picciano defines hybrid/blended learning as a course or subject that integrates online classroom activities with planned and meaningful face-to-face learning activities as well as consider the portion of implementation between face-to-face learning and online learning [5]. In 2008, The North American Council for Online Learning also illustrated that in the implementation of hybrid / blended learning learning interaction is needed in the classroom with direct instructions given during face-to-face learning, as well as policies resulting from the reflection of the implementation of hybrid / blended learning so as to produce the best online learning strategies [6].

This method is considered to have compatibility with the development of complex times because it is not rigid and monotonous in one method, but is a combination of several methods that are considered to have effectiveness in achieving learning objectives. In addition, blended learning is also very compatible with technological developments with the rapid growth of internet usage in most communities. Even internet access integrated in cellular facilities, tablet computers, phones and others is something that is commonly done by both students and educators. If, previously, the education system refused to use cell phones during the

learning process, then with the blended learning method, the use of gadgets could actually be the main supporting tool. This blended learning course allows students to access lecture material freely without having to attend face-to-face lectures.

With the demand for technological advancements and policy developments imposed in higher education circles, research related to the implementation of online learning systems is always developed in connection with the importance of knowing innovations, strategies, perceptions of lecturers and students as well as the results of the teaching process using the blended learning learning model. . Thus, this research was carried out with this aim.

Based on the background that has been described, the research is aimed to answer the following problems:

1. How is the implementation of hybrid / blended learning in structure courses in the Faculty of Education and Teacher Training especially in English education study programs?
2. What is the effect of hybrid / blended learning in an effort to improve student learning outcomes in the amata lecture structure?
3. What is the effect of hybrid / blended learning on students' digital literacy skills?

## II. RESEARCH METHODS

This research employed experimental research design by applying blended learning method in the process of teaching and learning. This study used a pre experiment research method with one group pre-test post-test research design by testing a treatment. The characteristic of experimental research according to Cohen is namely an independent variable (variables) that is manipulated by the researcher (p.212-214) [7]. Forms of manipulation the independent variable in this study is the treatment of blended learning.

The research focused on giving the treatment to the sample by using blended learning. The subject, which was given in blended learning method, is only one course; the name of the subject is Understanding English Structure/English Phrase Structure. The subject/course was given in the second semester. The research was conducted to the second semester students of English Language Education Study Program of FKIP, Pakuan University.

There were three test instruments used in this research; grammar test and digital literacy questionnaire. Both instruments were given to the sample and analyzed by using quantitative analysis statistic.

The procedure of the research is described in the following Figure 1.

The steps in data collection and analysis are as follows:

1. Pre test was given to samples. The pre-test contained the structure of the English language questions (based on the course/subject syllabus) and also the digital literacy questionnaire.

2. The first member of the researcher collected the first data from the pre-test scores and student questionnaire.
3. After that, the sample was given treatment in the form of a blended learning method. The main researcher uploaded four materials (topics) into e-learning under the subject / course Understanding the Structure of English / Structure of English Language and the teaching and learning process will be done online in e-learning.

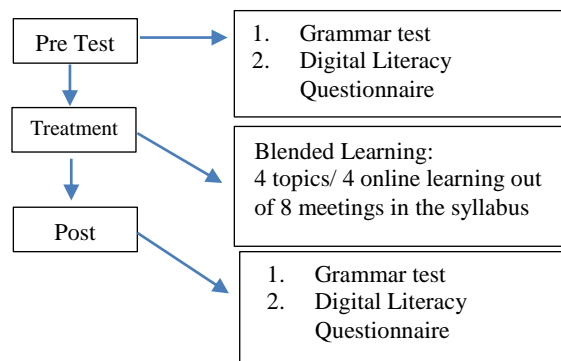


Figure 1. The procedure of the research

4. Middle Semester Exams and Final Semester Exams were given in the form of face to face meetings. While all assignments and quizzes were given online in e-learning.

Post tests and questionnaires about digital literacy were given at the end of the semester and the results was collected as data by the first member of the researcher. After collecting data, researchers analysed the results using quantitative and qualitative methods to find out and answer research questions.

## III. RESULTS AND DISCUSSION

### A. The Implementation of Hybrid/Blended Learning

Hybrid / blended learning was carried out in 3 stages; design phase, development stage and implementation phase. Design stage is the stage of designing a course that will be uploaded on the elearning.unpak.ac.id portal. This stage includes the design of the Semester Learning Plan by formulating course descriptions, and course learning outcomes, selecting study material to be presented, and making exercises based on study material.

After the analysis and design stages of blended learning are carried out, the next stage is the development stage. This stage of development includes the process of preparing a course portal, developing online course content, and uploading material. The implementation of blended learning is carried out with the following steps:

- 1) The teacher explains the material and examples contained in the RPS (lesson plan) in accordance with the face-to-face curriculum. There are two possible methods for integrating learning courses; first, courses will be held conventionally for half a semester, and the rest of the meetings will be held online, secondly, conventional and online meetings will be held alternately every week.

2) The teacher uses the internet by opening an e-learning website (LMS) and selecting the material discussed to explain to students. Material must be available and accessible to students regardless of place and time. The following are examples of e-learning course screens:

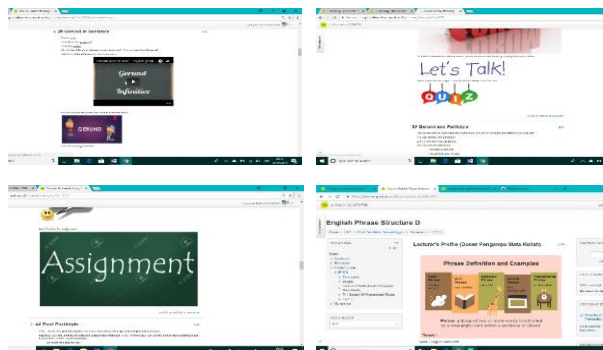


Figure 2 Example of elearning screens

3) Lecturers can check student attendance (online attendance) based on online discussions (asynchronous). Then, students study or listen to audio and watch learning videos uploaded to the electronic learning page. Learning material can also be downloaded in the form of pdf, PPT and Word files.

4) Submission of online assignments which are directly commented on and assessed by lecturers where students can review the results of their assignments. There is also an online quiz for each subject.

### B. Students' Grammar Achievement

One of the purposes of this study is to find out the effect of hybrid / blended learning in an effort to improve student learning outcomes in structure subject. Student achievement or learning outcomes are one of the most important parts of learning. Nana Sudjana defines student learning outcomes as behavioral changes basically as learning outcomes in a broader sense which includes cognitive, affective, and psychomotor fields (p.50) [8]. Dimiyati and Mudjiono also mentioned learning outcomes are the result of interactions between learning and teaching (p.200) [9]. From the teacher's point of view, the act of teaching ends with the process of evaluating learning outcomes. From the student side, learning outcomes are the end of teaching from the peak of the learning process.

The students were given grammar test consisted of 2 parts as many as 20 problem descriptions. The first part consists of 10 questions analyzing the types of phrases marked in sentences. The types of phrases marked consist of noun phrases, verb phrases, adjective phrases, adverb phrases, prepositional phrases and gerund-participle phrases. The second part consists of 10 questions analyzing the components of phrases in sentences.

The analysis used is the t test and the result of the statistical calculation can be explained in detail as follows table 1.

Table 1. Result Of T-Test

P Value =	0,001
Sig=	Signifikan
Mean Pre Test	63,4
Mean Post Test	86
Perbedaan	-22,6
Kecenderungan	Peningkatan

Based on the t-test results it is known that the average pre-test is 63.4 and after treatment in the form of learning using a hybrid / blended learning model, the average post-test value becomes 86 so that the increase is 22.6. Furthermore, based on the t test, the t-value of 2.085 was obtained. The value of t table with df 20 at the 5% significance level is 1.724. Therefore  $t_{\text{arithmetik}} > t_{\text{table}}$  ( $2,085 > 1,724$ ) and the significance value is smaller than 0.05 ( $0,001 < 0,05$ ) so that it can be stated there is a significant increase in student learning outcomes by using hybrid / blended learning models.

### C. Students' Digital Literacy

In the questionnaire given to students, there are several sections. The first is participant personal data from research; the second is the ability of computer and internet responsiveness, the third regarding the knowledge of components of digital tools, the fourth general area of digital literacy and the fifth is a factor affecting the ability of digital literacy.

According to Bernat and Mueller, in many ways that cannot be predicted, teaching and learning are somehow encroached upon by technology [10]. People are increasingly getting information from the Internet. Many people take web-based courses, and perhaps most surprisingly, they spend a lot of time playing video games and interacting through social networking sites. That is why digital literacy is commonly practiced by people today (p.3). In different term, digital natives refer to students born in the age of digital technology and using it and being able to use it in ways that digital immigrants (Prensky [11]) would never be able to. Digital immigrant itself is a term that refers to the generation that was born before the era of digital technology and is able to use it only because of studying it.

Based on the result of the questionnaire, it was found out that the students' ability of computer and internet responsiveness was increased 12% after the treatment. It was said that their ability in typing skill, and web searching was increased after taking hybrid learning course as well as their literacy in internet and computer. In section 3 about the components and applications in digital tools, the improvement was seen about 15% since the students' knowledge about the terms and components related to digital literacy was increased. The improvement was also gained about their knowledge of technology terms. The last sections was about the factors influencing their digital literacy. About 86% of the sample stated that the most affectious

factor on their digital literacy was their worries about using digital tools and technology. Therefore, by taking hybrid learning courses, they felt that they finally could overcome they fear about using technology in their learning process.

Here is one of the questionnaire's analysis result:

Table 2. Result Of Digital Literacy Questionnaire

Points	Before treatment				After treatment			
	P	A	G	VG	P	A	G	VG
Typing skill		19%	66,7%	14,3%			76,2%	23,8%
Web search		33,3%	47,7%	19%		23,8%	42,9%	33,3%
Computer literacy		47,7%	38%	14,3%		28,6%	42,9%	28,5%
Internet literacy		38%	42,9%	19,1%		23,8%	47,7%	28,5%
Digital Literacy	9%	38%	53%			14,3%	61,9%	23,8%

#### IV. CONCLUSION

Hybrid learning is the learning strategy that is very important to facilitate learning more effective, efficient and appealing for students since it related to technology. The first type of online learning still have weakness; however it can be overcome by the strength of combination of face-to-face instruction, and online instruction. Thus, in the implementation of hybrid learning, the appropriateness method and delivery strategies is the important key. In this research case, it described how the lecturers applied the hybrid learning started from the preparations until the evaluation and also effect of implementation of hybrid learning on the students' structure/grammatical achievement and also their digital literacy.

Research finding showed that the application of hybrid learning benefited the lecturers and also the students in some aspects; one of them is the students' improvement in grammar achievement and their digital literacy. However, the suggestions about the implementation of hybrid learning was about the orientation to both the students and the lecturers. They need to be familiarized to the system and all the activities included in the hybrid learning. Immediate and intensity of feedback from lecturer is also a success key to the activity of hybrid learning.

Supporting factors for the succeed of hybrid learning are among others; 1) the availability of internet access both at campus or home; 2) the high of students and lecturer familiarity or literacy on computer and internet; 3) the availability of online learning resources that can be found and downloaded through internet; 4) lecturer and most of students has own computer facilities such as PCs, laptop, notebook, etc. However, the addition of e-learning to classroom teaching provides students with opportunities for autonomous learning and a decentralized transfer of knowledge.

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