



Implementation of Blended Learning to Improve Student's Social and Academic Skills

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Abstract

The use of blended learning methods can improve learning outcomes and learning effectiveness of students in Civics subjects at SMA Negeri 1 Sumbawa Besar. The purpose of this study was to determine the application of the Blended Learning model to improving social and academic skills and learning effectiveness of students at SMA Negeri 1 Sumbawa Besar. The sampling technique used in this research is purposive sampling. The data analysis technique used is descriptive and statistical analysis. This research uses Mix Methods research with an experimental approach. The number of samples used in this study were 74 samples where each sample was given the same treatment by observing, interviewing and documenting learning outcomes so as to achieve results above the minimum completeness criteria and there was a significant increase between the PTS mean value is 83.86 with minimum value 74 and the maximum value is 96 and the PASmean value is 88.73 with minimum value 76 and maximum value is 100. Based on the results of these studies, it can be proven that learning in Civics subjects using the blended learning method can improve the learning outcomes of SMA Negeri 1 Sumbawa Besar students which is indicated by the increase in the value of social skills and academic skills, besides the learning process using the blended learning method can actually increase the effectiveness of learning at SMA Negeri 1 Sumbawa Besar.

Keywords: Blended Learning, Social Skills, Academic Skills, and Effectiveness

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INTRODUCTION

Educational development is a topic that is sometimes hotly debated (Mudlofir, 2016) , because education has the task of preparing human resources for modern development. Therefore, the organizers of the education process, both government and educational institutions, always strive to provide quality education services to produce quality graduates related to the development and changing times. Active learning activity training needs to be done to educate students to think independently (Akbar, 2017) . According to (Nahdi, 2017) , learning skills are active learning activities that are approved by the intent or motivation to acquire the ability to solve problems based on existing knowledge or abilities both in learning time settings and at learning locations, learning rhythms, learning tempo, learning methods, evaluation learning by the students themselves. However, when the teacher uses the lecture method in teaching, the learning process is not very effective in improving students. The poor quality of education is caused by inappropriate learning methods. This situation remains a concern in Indonesia. In fact, Indonesia is still popular with traditional learning, namely learning that takes place in limited classes using the lecture method (Dahniar, 2021) . In short, in this learning process, students are limited by the dimensions of space and time. That is, students need to teach and learn in the same space and time as teachers and other students.

Education and learning activities themselves are an effort to create conditions for creating educational and learning activities that enable students to achieve appropriate

learning (Dahniar, 2021) . Most of the learning carried out does not take advantage of existing technological developments such as PKN learning . In this case, students' learning of PKN is not maximized because learning is still monotonous, and vice versa students must achieve the average value that has been set by the school. According to Hamdani (2011), "Familiarity in learning is the minimum standard of completeness (KKM) in learning, and students are required to fully master all standards of basic skills and abilities in a particular subject. You can achieve complete learning by seeing more than 75% individually and more than 85% as research subjects" (Hasibuan, 2018). The minimum integrity criteria for the 2013 curriculum assessment include attitudes, knowledge and skills. Based on the observations of researchers at SMA Negeri 1 Sumbawa Besar, students' PKN learning skills during the learning process are still lacking. In the current 4.0 era which coincides with the outbreak of the pandemic, most educators are starting to recognize the *blended learning* model, even though the *blended learning model* itself has long been born. This learning is an educational innovation that answers the challenge of the availability of diverse educational resources (Nakayama et al., 2007). Because at first *blended learning* emerged as a response to the weaknesses of face-to-face and online learning (M. Sari, 2019) . Through *blended learning* it is possible to create a positive learning environment for interaction between students, other students and educators without being limited by space and time (Asmendri & Sari, 2018) . For this reason, researchers want to try to re-apply the *blended learning model* in normal learning and are interested in the research "Implementation of Blended Learning to Improve Students' Social and Academic Skills in PKN Lessons at SMA Negeri 1 Sumbawa Besar ".

METHOD

Research Implementation of *blended learning* to improve students' social and academic skills in PKN lessons was conducted at SMAN 1 Sumbawa Besar Jl. Garuda No. 1 Sumbawa Besar West Nusa Tenggara, from May 2022 – June 2022. This research was started from May 18 to June 18 2022. The length of the research within that period was used to make observations, collect the required documents and conduct interviews to get responses from informants and respondents. This study uses the Mix Method research method, which is a method that combines quantitative and qualitative methods (Umam, 2018) . The approach used is an experimental approach which is the only research method to properly test hypotheses regarding causal relationships (Learning & Research, 2019) Adding that experimental research can be interpreted as a research method used to find the effect of certain treatments on others under conditions controlled (Ratminingsih, 2010) . In the pre-experimental step in this study using the results of the Mid-Semester Assessment (PTS) and the Post-Semester activity using the results of the Final Semester Assessment (PAS). The population in this study were students of class X SMAN 1 Sumbawa Besar, totaling 283 students. To determine the number of samples to be taken, the researcher uses the *Slovin formula* , which is to calculate the minimum number of samples if the behavior of a population is not known with certainty (Yuliza et al., 2020) .

$$n = \frac{N}{(1 + Ne^2)}$$

Description :

n : minimum number of *samples*

N : many *samples* in the population

e : fault *tolerance limit (error)*

So the calculation is:

$$n = \frac{283}{(1 + 283 (0,1)^2)}$$

$$n = \frac{283}{1 + 284(0,01)}$$

$$n = \frac{283}{3,84}$$

$$n = 74$$

Based on the results of calculations using the *Slovin formula*, the number of samples used in this study were 74 subjects, with a tolerance limit used of 10% = 0.01. The sampling technique used is *purposive sampling* where the sampling technique is used with several considerations (Sugiyono (2018: 147), 2018).

The data in this study consist of:

1. Primary data is data collected by individuals/organizations directly from the subject under study and for the benefit of related research in the form of interviews or observations (Helmi, 2021). The main data in this study are data obtained from observations and interviews.
2. data (*secondary data*) is data obtained/collected and compiled by previous studies or published by various other agencies. Usually the indirect source is in the form of documentation data and official archives (Helmi, 2021). Secondary data is data that already exists, which was collected by previous research institutions and organizations. So in this study the secondary data in the form of data documents from the Mid-Semester Assessment (PTS) and Final Semester Assessment (PAS) obtained from the vice principal of the curriculum field.

To obtain the data needed in this study, the data collection technique used was observational data. When conducting observations, the researcher is involved in the daily work of the work process, and the individual being observed is the source of research data. (Sugiyono, 2016). Observations will be carried out every time the researcher conducts learning activities. This activity aims to assess the attitudes and behavior of students whether they are in accordance with the rules and instruments that have been made. Participation observation sheets are presented in the form of closed statements, which will then be processed quantitatively. At first the researcher will observe the social attitudes and behavior of individual students by using a check *list* to capture indicators identifying the work steps that are applied to the process of applying conventional learning models and the application of *Blended Learning*, while the observation instruments used are as follows.

Table 1. Observation Instrument

SubVariable	Indicator	Question number	
		Yes	Not
Visual Activities	Pay attention to teacher		
	Paying attention to apperception		
	Watching the lesson <i>slides</i>		
	Observing Master's demonstration		
Oral Activities	Willingness to ask		
	Willingness to answer		
	Express your opinion		
	Discuss with friends		
Listening Activities	Listen to the teacher 's instructions		
	Listening to the lesson		
	Listening to group discussions		
	Listening to the explanation friend		
Writing Activities	Taking notes		
	Carry out a task		
	Summarize and conclude		
	Note group conclusions		

The observation sheet consists of 4 sub-variables, each sub-variable has a maximum score of 25%, the maximum score of all sub-variables is 100%, while the number of question indicators from sub- variables is 4 observations, the total number of question indicators is 16 observations.

Based on the data obtained, the formula used to calculate the questionnaire from the validator is as follows:

$$p (\%) = \frac{\sum X}{\sum X_i} \times 100\%$$

Where :

p : the presentation you are looking for

$\sum X$: total value of respondent's answer

$\sum X_i$: number of ideal values

The graduation criteria are declared complete if the final score of the total sub-variables is 75%. The criteria for assessing student activity is by giving a *check list* , so the category achieved on the indicator is marked with a *check list* in the "yes" column then the category not achieved on the indicator is marked with a *check list* in the "no" column. Determination of the value for each indicator by adding up all sub-variables which are converted into percentages (%).

Meanwhile, to serve as the basis for making social skills decisions, the assessment criteria used were adapted from the book Basics of Educational Evaluation (Ridha Aulia Putri, 2021) as follows:

Table 2. Social Skills Level Criteria

Percentage (%)	Social Skills Criteria
76 – 100	very capable
56 – 75	Competent
40 – 55	Enough Talk
0 – 39	Less proficient

An interview is a conversation that takes place between an interviewer (interviewer) who asks questions and the interviewee (interviewer) who provides answers (Recruiting et al., 2016) . Interview to collect information about the respondent's personal feelings, opinions, assumptions, activities, motives and goals (Learn, 2019) . The interview method used in this research is an open interview. Then to get a response from the interview will be indicated by the response code taken. The code of questions in this interview can be seen in the interview instrument conducted as follows.

Table 3. Interview Guide Instrument

Interview code	Question	Question Number
W1	Where do you use the references in your studies?	1
W2	What do you think are the most effective applications for learning?	2
W3	Which learning model do you prefer between conventional learning models or Blended learning?	3
W4	How do you feel about the application of the Blended Learning model?	4
W5	How to increase your confidence when working in groups with the application of this Blended Learning learning model?	5
W6	How are you active in the Final Semester Assessment Final Semester Assessment doing group assignments?	6
W7	How do you respond to your friends' opinions when	7

Interview code	Question	Question Number
	discussing in class?	
W8	In understanding the material, have you been helped by this Blended learning model? Give your reasons!	8
W9	How did you improve your learning outcomes after using the Blended Learning model?	9
W10	In your opinion, is the blended learning model effective?	10

The data analysis technique in this study is to use the steps as used by Burhan Bungin (2003:70), which are as follows:

1. Data Collection (*Data Collection*)
Data collection is an integral part of data analysis activities. Data collection activities in this study were using interviews and documentation studies.
2. Data Reduction (*Data Reduction*)
Data reduction is defined as the process of selecting, focusing on simplification and transformation of rough data that emerges from written records in the field. Reduction is carried out since data collection begins by making summaries, coding, tracing themes, making clusters, writing memos and so on with the aim of setting aside irrelevant data/information.
3. Data Display
Display data is a description of a structured set of information that provides the ability to draw conclusions and take action. The presentation of qualitative data is presented in the form of narrative text. Presentation can also be in the form of matrices, diagrams, tables and graphs
4. Verification and Confirmation of Conclusions (*Conclusion Drawing and Verification*)
Is the final activity of data analysis. Drawing conclusions in the form of interpretive operations, namely finding the meaning of the data presented. Between displaying data and drawing conclusions, there is data analysis in this sense, qualitative data analysis is a continuous, iterative, and continuous effort. Problems of data reduction, data presentation, and conclusion drawing/verification are successive descriptions of success as a series of related analytic activities.

In addition, data is analyzed, interpreted, and verbalized to describe facts or to answer research questions that are then drawn from the main idea. Based on the information above, each stage of the process is carried out to obtain the validity of the data by checking all available data from various sources obtained in the field and personal documents, official documents, pictures, drawings, etc. with maintenance methods supported by research. And the documentation data is taken from the Mid-Semester Assessment and the Final Semester Assessment.

Based on data from the Mid-Semester Assessment (PTS) and Final Semester Assessment (PAS) documents, a student is considered successful if he reaches the KKM (Minimum Completeness Criteria). The formula used to find the average Mid-Semester Exam (PTS) and Final Semester (PAS) scores is as follows:

$$\text{Nilai} = \frac{\text{Sjumlahseluruhnilai}}{\text{Jumlahsiswa}}$$

Then from the results of the average value will be made in the form of a percentage of the number of students' learning completeness where the results of the Middle Semester Assessment (PTS) using the conventional learning model will be compared with the results of the Final Semester Assessment (PAS) using the *Blended Learning learning model*.

The minimum completeness criteria for classes at SMA Negeri 1 Sumbawa Besar are.

Table 4. Predicate Interval Minimum Completion Criteria for SMA Negeri 1 Sumbawa Besar

CLASS	KKM	PREDICATE			
		D	C	B	A
X	75	Value <75	75 <= Value < 83	83 <= Value < 91	Value <91
XI	77	Value <77	77 <= Value < 85	85 <= Value < 93	Value <93
XII	77	Value <79	79 <= Value < 86	86 <= Value < 93	Value <93

The data analysis of student learning outcomes in this study used statistical analysis with the SPSS 26 application. The data that had been collected and analyzed used several statistical tests as follows:

1. *Kolmogorov-Smirnov* . Normality Test

In this study, the normality test was carried out using the *Kolmogorov-Smirnov test*, the *Kolmogorof-Smirnov* normality test aimed to determine whether the research data were normally distributed or not. In statistical analysis, data that is normally distributed is a mandatory thing as well as an absolute requirement that must be met.

2. *Levene statistical homogeneity test*

The homogeneity test or *homogeneity of variance* is a test carried out to find out whether the research data from two or more data distributions have the same variance. In addition, the homogeneity test is also a requirement for the t-statistical test.

3. Test Statistics *T-test*

T - test is a comparison test or different test to determine whether there is a significant difference in the mean or average between 2 groups with interval or proportional data scales. The assumptions that must be met in the t-test include that the data distribution must be normal and the data variance must be uniform.

RESULTS AND DISCUSSION

Successful teaching and learning is largely process-based and less concerned with student outcomes. To carry out this process, motivation is needed both from within and from outside the individual (Sulfemi, 2020) . In this study, the assessment of the success of the teaching and learning process was observed from changes that included: student activities in the learning process that lead to good grades, and the achievement of teaching and learning qualification requirements for students. The action taken is to apply a *blended learning model* to improve social skills and academic skills.

The data leaflet from statistical analysis explains that the average value (*mean*) of the 74 samples of Mid-Semester Assessment (PTS) using conventional learning methods is 83.86 with a minimum score of 74 and a maximum value of 96 with a distribution of 70-75 scores of 4 samples, the value of 76-80 is 19 samples, the value of 81-85 is 18 samples, the value of 86-90 is 27 samples, the value of 91-95 is 5 samples and the value of 96-100 is 1 *sample* .) of 74 samples of the Final Semester Assessment (PAS) using the *blended learning learning method* is 88.73 with the maximum value achieved is 76 and the maximum value is 100, the distribution of values 70-75 is 0 samples, the value is 76-80 for 6 samples, the value is 81 -85 is 14 samples, 86-90 is 26 samples, 91-95 is 17 samples and 96-100 is 1 sample.

The data that has been collected is then tested using a statistical test consisting of the *Kolmogorov-Smirnov* normality test. The normality test is carried out to determine whether the residual value has a normal or abnormal distribution (AQ Sari et al., 2017) . To find out if the residual data is normally or not normally distributed, it can be determined by using the k statistic test which is known as the *Kolmogorov-Smirnov* sample test (Ningsih & Dukalang, 2019) . This normality test can produce more detailed numbers to find a regression equation that overcomes the normative with a *Kolmogorov-Smirnov significance value* greater than

0.05 (Ilmiani & Sutrisno, 2015) . The results of the normality test carried out showed a *Kolmogorov-Smirnov significance number of 0.62 for the Mid-semester Assessment (PTS)* and *0.56 for the Final Semester Assessment (PAS)* , *in accordance with the rules of the Kolmogorov -Smirnov normality test* , that is , if the significance value shows a number > 0.05 then the data distribution is normal .

The homogeneity test was carried out as a condition for processing statistical data in the group and to find out whether the data in the group had the same variance or not. In this study, the homogeneity test used was the *Levene statistical homogeneity test*. The determination of the homogeneity of the data carried out by the test is said to be homogeneous based on its significance value. If the significance value 0.05 indicates the data group comes from a population that has the same variance (homogeneous). If the significance value is 0.05, it shows that each group of data comes from a population with different variances. From the results of the homogeneity test above, it was obtained a significance value of 0.710, indicating that the distribution of data in the treatment and control groups was homogeneous, with a *statistical levene value of 0.139*.

Statistical Test *T-test* was conducted to determine whether the treatment group (*Blended Learning*) had an influence on the control group (Middle Semester Assessment Value) with the results of the T test using the SPSS application showing the sig value. (*2-tailed*) on the T-test of $0.000 < 0.05$, which means that there is a significant difference in scores between the Middle Semester Assessment (PTS) score group and the Final Semester Assessment (PAS) score group using the *blended learning method* . This shows an increase in value before using the *blended learning learning model* and after using the *blended learning learning model* .

results of observations made by researchers based on observation sheets obtained a percentage of 87.33 % with a very proficient category in its application with 16 indicators answering yes, and a percentage of 12.67 % answering no. The results of the observation of social skills are directly proportional to the observation values obtained in statistical testing in the assessment of the results of the Mid-Semester Assessment (PTS) and Final Semester Assessment (PAS). This indicates that the application of *blended learning* can improve the social skills of students at SMA Negeri 1 Sumbawa Besar.

The results of interviews conducted with three students where all students answered that they prefer and like the teaching and learning process with the *blended learning method* .

In accordance with the results of statistical testing using the *T - test*, it can be seen that the *sign column (2-tailed)* shows the number $0.00 < 0.05$, which means that there is a difference between the 2 group data being tested, namely the Mid-Semester Assessment (PTS) and Final Semester Assessment (PAS). The requirements for the *T-test* were to perform the *Kolmogorov-Smirnov normality test and the Levene's Test* homogeneity test in order to determine whether the distribution of the data was normally distributed and homogeneous. From the results of the normality test, it shows a significance value of 0.63 for the Mid-Semester Assessment (PTS) and 0.56 for the Final Semester Assessment (PAS) on the normality test results, where according to the normality test rules, if the significance number is > 0.05 then the data distribution is normally distributed. , while for the homogeneity test, the significance value in the *Levene's Test column* shows the number 0.710. The results of the analysis, where according to the homogeneity test rules, if the significance number is 0.05 then the distribution of data can be said to come from the same population (homogeneous). The results of data analysis on conventional learning methods and *blended learning methods* in PKN subjects can be said that the value of the Mid-Semester Assessment (PTS) and Final Semester Assessment (PAS) shows an increase in academic skills, in the assessment there is an increase in the average score, from 83.07 in the Mid-Semester Assessment using conventional learning methods to 88.73 in the Final Semester Assessment using the *blended learning method* . Where the average value previously mentioned is obtained from the total number of students' scores divided by the number of students. So, from the comparison results of the Mid-Semester Assessment (PTS)

and Final Semester Assessment (PAS) at SMA Negeri 1 Sumbawa Besar, there is an increase in academic skills with the application of the *blended learning learning model* with an average score increase of 5.03.

The implementation of *blended learning learning* begins after PTS in March 2022 to June 2022, this implementation begins with a trial on the PTS assessment by applying conventional methods to 74 students conducted in February to March 2022, after getting the results of the Mid-Semester Assessment (PTS) during the process of applying this learning, the researcher also conducted an observation process. The results of the observations then analyzed the data on the learning method using conventional methods and *blended learning methods* in PKN subjects. As a reference for the analysis results contained in table 4.6: the results of the observations turned out to be an increase in the social skills of students where the minimum completeness criteria of students showed a percentage value of 87.33% which ticked the "yes" column, then the value of 12.67% which ticked the column "no" the value is obtained from the total sum of all sub-indicators on the observation sheet and from this value it can be concluded that the categories achieved are included in the proficient category according to the range of social skills scores.

In addition to the minimum completeness criteria value which shows the percentage above the average and there is an increase in the value from the mid-semester assessment to the end of the semester assessment, the researcher conducted interviews with three students who were sampled to ask questions that compared conventional learning methods with blended learning, according to the results. interviews conducted by all samples felt more comfortable and easier in carrying out the learning process with the *blended learning method*. Students also said that diverse learning makes students more engaged in learning, and of course, blended learning actually helps them learn more effectively and efficiently, even though they can ask questions at any time, even when they are not in class. Thus, based on the results of student interviews, it can be seen that the *blended learning method* is more effective than conventional learning methods.

CONCLUSION

Based on the results of research that has been carried out in 2 methods, namely conventional methods and *blended learning methods*, it can be concluded: (1) The learning process in PKN subjects using the *blended learning method* is able to improve student learning outcomes at SMA Negeri 1 Sumbawa Besar. Improved learning outcomes can be seen from the increase in students' social skills obtained from observations which show that all students meet the minimum completeness criteria scores above an average of 75% where the lowest score percentage is 75% and the highest score percentage is 100%. (2) The learning process in PKN subjects using the *blended learning method* can improve student learning outcomes at SMA Negeri 1 Sumbawa Besar. Improved learning outcomes can be seen from the increase in academic skills. The increase in academic skills can be seen from the data on the value of Middle Semester Learning with End Semester Learning, students who experience an increase in the minimum score from 70 to 76, an increase in the maximum score from 96 to 100 and an increase in the average score from 83.06 to 88.89. (3) The learning process using the *blended learning method* can increase the effectiveness of learning in SMA Negeri 1 Sumbawa Besar, an increase in the effectiveness of learning is indicated by students who feel more comfortable and easy to carry out the learning process using the *blended learning method*.

RECOMMENDATION

Based on the conclusions that have been obtained, the following recommendations can be made :

1. Teachers are expected to be sensitive to existing technological developments so that they can apply the use of technology in learning. This research can be a new idea when

using learning methods, especially the *blended learning model*. The online discussion room not only manages student learning outside of class hours, but also facilitates communication between teachers and students. Students are expected to be open and take advantage of the internet and the sophistication of the internet in PKN learning, so that learning in class is no longer based on the teacher, but classroom learning can run with students also knowing what to learn.

2. For further research, it is expected to conduct research on different subjects so that the results can be known and can be compared with the results of this study.

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