The Implementation of Independent Learning Activity Units in the Semester Credit System Improves Learning Achievement

May *
Sekolah Tinggi Teologi Sunergeo Banten, Indonesia.
Email: mayseminary77@gmail.com

Abstract: The purpose of this study was to find out how much contribution the application of the Independent Learning Activity Unit in the Semester Credit System to the Learning Achievement of Students at the Doyo Baru Adventist High School contributed. This study uses quantitative methods with a correlational research design approach. Based on the result of the study, there is a significant relationship between independent learning activity units in the semester credit system and learning achievement the is a correlation coefficient value (R) = 0.685; coefficient of determination (R2) = 0.469. The results of this study indicate the relationship between the application of the Independent Learning Activity Unit in the Semester Credit System and the Student Achievement of 46.9%. The remaining 53.1% contributed by other variables not examined in this study. The contribution of the Independent Learning Activity Unit from the Implementation of the Independent Learning Activity Unit in the Semester Credit System to the Student Achievement of 46.9%.

Keywords: UKBM; SKS; Learning Achievement; Quantitative; Correlation.

1. Introduction

The Independent Learning Activity Unit is a device used to support learning and individual students in the Semester Credit System that requires independence, flexibility, and completeness in learning [1]. According to Ahmadi and Amri, preparation is needed in the application of the Semester Credit System, namely, "preparing modules for students that must be equipped with the subject matter, student training tools or students, evaluation tools, independent work exercises, as well as general test kits for each subject [2]. Semester Credit System is a form of development of education administration designed to serve students in completing the learning load according to their abilities, talents, and learning speed [3]. This system requires all students to undergo the same learning system in completing their learning program. This system is less aspirational when faced with the fact that students are basically diverse both in terms of talents and interests [3]. Students who have special intelligence will be hampered from completing their study programs because they have to wait for other friends, and vice versa students who have average abilities must follow the learning patterns of students who have special intelligence [3].

Through the Independent Learning Activity Unit in the Semester Credit System, students are expected and able to complete their educational program faster than the general study period that has been set in each educational unit [4]. The existence of UKBM will gradually change the system of teaching and learning activities that are often applied in general in the classroom. So broadly speaking, the Independent Learning Activity Unit can have a broad influence and impact on students. The application of the Independent Learning Activity Unit is of special interest because the implementation process is directly related to individual participants, and there are many benefits and independence of learning for students [5]. Based on the guidebook for the development of independent learning activity units published by the directorate of senior high school development, the Ministry of Education and Culture, the UKBM development components include "Lesson Textbooks (BTP) as the main learning resource that can be enriched with more actual and relevant sources, core competencies (KI)" and basic components (KD), assignments and learning experiences following the competencies to be achieved, and self-evaluation tools" [6]. Learning achievement is the result that has been achieved by students with their abilities or potential in receiving the material that has been given to them or students' efforts to achieve the expected goals [7]. That is, learning achievement must include cognitive, affective, and psychomotor aspects. The three aspects above do not stand alone but are inseparable units, even a hierarchical relationship [7]. Learning success and learning achievement are influenced by several factors, both internal and external [8]. According to Suryabrata (2002), the factors that affect learning achievement are classified into two factors [9], namely:

1. Factors originating from outside themselves or exogenous factors, these factors are classified into two parts, namely:
    a. Physiological factors
    b. Psychological factors
2. Factors that come from themselves or in doing, are also classified into two parts, namely:
    a. Social factors
    b. Non-social factors

According to Deasyanti & Aarmeini (2007), the factors that affect academic achievement are as follows [10]:
  1. Cognitive Readiness (Cognitive Entry Behavior)
      Cognitive readiness is a requirement of students learning skills needed before they can master new tasks. This cognitive readiness is influenced by the student's background.
  2. Affective Entry Behavior
      Affective characteristics refer to students' motivation to learn new material that includes students' emotional aspects, including interests, attitudes, and views.
  3. Teaching quality
      Quality of lessons is the quality of teaching provided by educators and focuses on interactions that occur in the classroom.

From the writer's observations in the field, in general, students have not been able to show maximum learning achievement because the teaching methods taught are not right. Therefore, it is necessary to have an appropriate teaching method so that student achievement increases. One of them is through the learning model of independent learning activity units. The advantage of the independent learning activity unit model is that the results can be felt by students through a more communicative experience and can increase learning achievement to the maximum. Some of the benefits of the Independent Learning Activity Unit model in the semester credit system for students include 1) sequential learning through UKBM-UKBM according to the speed of mastery in each unit of study time. 2) self-study to master competencies according to the speed of mastery of each UKBM. 3) achieve a higher level of competence following the ability to learn speed. 4) determine the learning load according to their talents, interests, and learning speed abilities. With the learning model of the Independent Learning Activity Unit given by the teacher to students, it is hoped that there will be an increase in learning achievement. The objectives of this study are 1) To determine the relationship between the implementation of UKBM in the Semester Credit System with Student Achievement at the Doyo Baru Adventist High School? 2) To find out how big is the contribution of the Implementation of the Semester Credit System UKBM to Student Achievement at Doyo Baru Adventist High School?

2. Method

The approach used in this study is a quantitative approach using a correlational research design. Ary, Jacobs & Razavich said that correlational research is research that explains whether there is a relationship between various variables based on the size of the correlation coefficient [12]. The place of this research is at the Doyo Baru Adventist High School. The population in this study were all students of class X IPA 1,2, Social Sciences and Language at Doyo Baru Adventist High School, Waibu District, Jayapura Regency, amounting to 81 people. And with the sample in the form of part of a whole, that was chosen specifically to represent the entire class X IPA 1 SMA Adventist Doyo Baru totaling 18 people. So this study was conducted on the entire population by using 17 people to try out the validity of the instrument questionnaire. The number of instruments tested is 30 statement items. The results of Reliability Statistics with N (item) as many as 27 items obtained Cronbach's Alpha of 0.42. From the comparison results obtained rcount < rtable for significant level = 0.05) and rcount < rtable (0.413 < 0.025 for significant level = 0.05) so that the instrument questionnaire was declared reliable to be used as a research questionnaire. Data processing is carried out with the help of the Statistical Product and Service Solution (SPSS) version 22.0. program.

The prerequisite test uses the classical pre-assumption test technique with 2 (two) types of analysis requirements, namely the normality test and the linearity test. The data normality test is intended to determine whether the data used in the study is normal or not. To test the normality of the data, the Kolmogorov Smirnov test kit with the SPSS 22.0 program will be used. The data is said to be normally distributed if the significance is > 0.005 at the significant level $(\alpha) = 5\%$. The linearity test of the data was used to determine whether the two variables had a linear or insignificant relationship. It is said that two variables have a linear relationship if the significant value (linearity) is less than 0.05. Hypothesis testing was carried out using Bivariate Correlation analysis to determine the value of each variable or class interval dimension.

The author sets 3 class intervals to measure the level of understanding, namely lack of understanding, understanding enough, and very understanding. Just like the first hypothesis test, the second hypothesis test was carried out using Bivariate Correlation analysis. The author sets 3 class intervals to measure learning achievement, namely low, medium, and high. The third hypothesis test was carried out by simple correlation analysis (ryn), determination of variance (r2 yn), simple correlation significance test (t test), linear regression equation with line equation =a+Xn accompanied by pictures and the meaning of the equation and significance test. regression (F) via Anova table.

3. Result and Discussion

3.1 Description of Research Result Data

  In the study, there were 17 respondents. The results obtained for the average (sum) 1229; the midpoint (mean) of 72.29; the standard deviation of 23,695; the level of data spread (variance) is 561,471 while the lowest value (minimum) is 44 and the highest value (maximum) is 108 with a range of 64. While the total number (sum) is 1229. From the data analysis of variable X: Implementation of Independent Learning Activity Units in Semester Credit System (X) obtained the following data:

Table 1. Description of Data Variable X

Descriptive Statistics		
Variable X: Implementation of Independent Learning Activity Units in the Semester Credit System		
N	Valid	17
	Missing	0
Range		64
Minimum		44
Maximum		108
Sum		1229
Mean		72.29
Std. Devatiation		23.695
Variance		561.471

  From table 2, it is known that variable Y has an average (mean) of 81.35 and a standard deviation of 3.020; the level of data spread (variance) is 9,118 while the lowest value (minimum) is 78 and the highest value (maximum) is 88 with a range of 10. While the total number (sum) is 1383. The data analysis of variable Y: Student Achievement, it is obtained data as follows:

Table 2. Description of Y. Variable Data

Descriptive Statistics		
Variable Y: Student Learning Achievement		
N	Valid	17
	Missing	0
Range		10
Minimum		78
Maximum		88
Sum		1383
Mean		81.35
Std. Devatiation		3.020
Variance		9.118

3.2 Requirements Analysis Test Results

  Pre-requisite test is done by using the assumption test with SPSS 22.0 for the Windows program. Variable Y: Student Achievement. Variable X: Implementation of Independent Learning Activity Unit in Semester Credit System.

a. Normality Test Results

  Santoso said that the Normality Test could be done by looking at the distribution of the data on the PP (Probability Plot) graph. The spread of data spreads around the diagonal line and follows the direction of the diagonal line, then the regression model fulfills the assumption of normality [13]. So, the spread that follows the diagonal axis indicates the normality of the data that meets the requirements. The normality test was carried out on the dependent variable, namely Student Achievement (Y), and the independent variable, namely the Implementation of UKBM in the Semester Credit System (X). The results of the calculation of the normality test successively are stated as follows:
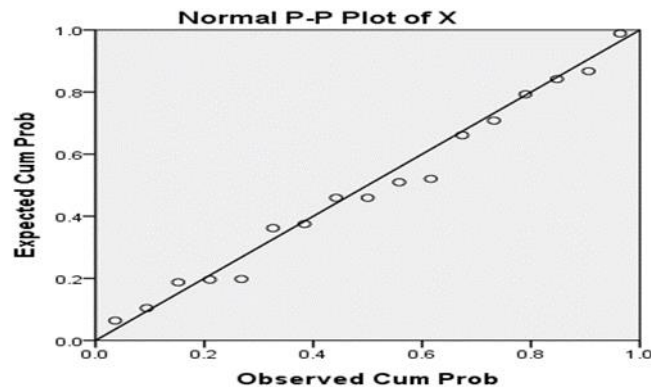
Figure 1. Normality Test of UKBM Implementation Data in the System
Semester Credits (X)

From Figure 1 above, it can be concluded that the distribution of data spreads around the diagonal line and follows the direction of the diagonal line. This is evidenced by the normality of the data for the independent variable. Implementation of UKBM in the Semester Credit System meets the requirements. Meanwhile, Telaumbanua said that to find out whether normal or not a date can be seen on the results of the normality test in the Kolmogorov-Smirnov column. To determine whether the data is normal or not, the Kolmogorov-Smirnov calculation obtained from the calculation needs to be compared with Sig = 0.05 which is often referred to as the critical number. Telambanua said that "if Sig based on the calculation is greater (>) than 0.05 then it is declared normal" [15]. The results shown in the Kolmogorov-Smirnov column have data as shown in the image below:

Table 3. Kolmogorov-Smirnov Analysis Results
Test of Normality

		Unstandardized Residual
N		17
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	2.19972943
Most Extreme Differences	Absolute	.126
	Positive	.126
	Negative	-.063
Test Statistic		.126
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Based on the description of the data from the normality test, it can be concluded as follows: (1) The UKBM Implementation Variable in the Semester Credit System (X) has Sig = 0.200 and is greater (>) than 0.05, so it is declared normal. (2) Student Learning Achievement Variable (Y) has Sig = 0.200 and is greater (>) than 0.05 then it is declared normal.

b. Linearity Test Results
    A linearity test is conducted to test whether the data between two variables is linear or not. This is especially important for correlational analysis because the basic assumption of correlational analysis is linear. This means that if one variable increases/increases then the other variables also increase and vice versa. The following are the results of linearity testing using SPSS 22.0 for Windows, which are shown in the Anova table, the details of which are as in table 4 below:

Table 4. Results of Linearity Test Analysis

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Y * X	Between Groups	(Combined)	139.382	13	10.722	4.948	.107
		Linearity	68.461	1	68.461	31.598	.011
		Deviation from Linearity	70.921	12	5.910	2.728	.222
	Within Groups		6.500	3	2.167		
	Total		145.882	16			

By comparing Sig. or Significance with 0.05. If Sig based on the calculation is greater (≥) than 0.05 then it is declared linear. (a). Student Achievement (Y) against (b) Implementation of UKBM in Semester Credit System (X), from the data above shows that Sig = 0.222, this indicates that $0.222 > 0.05$, thus the relationship between Student Learning Achievement The implementation of UKBM in the Semester Credit System above meets the assumption of linearity or Linear.

3.3 Hypothesis Testing Results
The regression analysis used in this hypothesis test is intended to determine the relationship between variables. Hypothesis testing can be done if the analysis requirements do not experience problems. All the results of this regression analysis were completed with the help of SPSS 22.0 for Windows.

1. **First Hypothesis: There is a Relationship Between the Implementation of UKBM in the Semester Credit System and Student Achievement**
   To see whether there is a relationship between the two variables, then in correlation research it can be seen from the results of the correlation analysis test and the analysis of the regression technique. The correlation analysis uses Bivariate Correlation analysis and the method used in the regression technique is using the enter method.
   a) Bivariete Correlation
      From the results of the bivariate correlation test, the correlation analysis of the data obtained was r = 0.685. The correlation coefficient of 0.685 with a significance level of 0.000 or less than the given tolerance of 0.05 indicates that H0 is rejected, meaning that the application of UKBM in the Semester Credit System has a relationship with Student Achievement in Adventist High School Doyo Baru. This means that the relationship between the Implementation of UKBM in the Semester Credit System and Student Achievement is 68.5%.
   b) Simple Linear Regression
      Simple Linear Regression was conducted to determine the relationship between the independent variable and the dependent variable. The results of a simple linear regression analysis of the implementation of UKBM in the Semester Credit System to improve Student Learning Achievement can be seen in table 5 below:

Table 5. Results of Simple Linear Regression Analysis: Application of UKBM in SKS with Student Achievement

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.685ᵃ	.469	.434	2.272

a. Predictors: (Constant), X

Table 5 above shows that the R of 0.685 shows that the correlation between the independent variable (UKBM Implementation in the Semester Credit System) and the dependent variable (Student Learning Achievement) is significant (Sig. F 0.05). The value of R Square or the coefficient of determination is 0.469. The adjusted coefficient of determination (Adjusted) is 0.434. Furthermore, to find out whether the regression model can be used to predict the increase in student learning achievement, the results of a simple linear regression test are used in the Anova column, which is shown in table 6 below.:

Table 6. ANOVA Test Results

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.461	1	68.461	13.264	.002[b]
	Residual	77.421	15	5.161		
	Total	145.882	16			

a. Dependent Variable: Y
b. Predictors: (Constant), X

In table 6 above, Fcount is 13,264 with a significance level of 0.000 which is much smaller than 0.05 (Sig. F 0.05). This means that regression can be used to predict Student Learning Achievement has a correlation with the Implementation of UKBM in SKS or in other words the variable of Application of UKBM in SKS has a relationship with Student Learning Achievement. as shown in table 7 below:

Table 7. Coefficient Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	75.042	1.818		41.269	.000
	X	.087	.024	.685	3.642	.002

a. Dependent Variable: Y

In table 7, the regression line equation = a + X is = 75,042 + 0,087 (Implementation of UKBM in Semester Credit System). With a constant of 75.042, it can be said that the independent variable has a significant effect on the dependent variable.

c)   Regression Line Equation

Based on the multiple linear regression analysis data obtained from the results of data processing using SPSS 22.0 for Windows, the resulting regression line equation is: = a+bX. The regression line equation from the results of SPSS analysis is: = 75,042 + 0,087 (Implementation of UKBM in Semester Credit System). This regression line equation can be depicted in Figure 3. as follows:
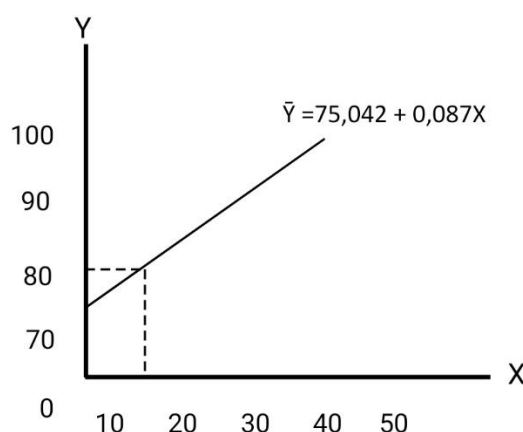

Figure 2. Regression Line Equation

The regression line equation aims to visualize the estimate that if the constant condition is increased by X, it will increase by a'. From the data above, it can be seen that the constant condition is 75.042 if estimated by X = 10, then it increases by 75.12.

2.   **Second Hypothesis: How Much is the Implementation of UKBM in the Semester Credit System on Student Achievement**

Test this second hypothesis, it can be seen from the results of the regression analysis. The results shown in the simple linear regression test have a regression coefficient, t Calculate and the level of significance in the study, as shown in table 8 below:

Table 8. Amount of Variable UKBM Contribution in Explaining Student Achievement

Variable	Correlation Coefficient (r)	R *Square*	t Count	Sig Alpha	Information
Application of UKBM in Semester Credit System	0,685	0,469	3,642	0,002	Significant Influence

The UKBM implementation variable in the Semester Credit System has a significant level of 0.002. This value is smaller than 0.05 (0.002 0.05). This shows that H0 is rejected at = 0.05, meaning that the variable UKBM implementation in the Semester Credit System has a significant effect on Student Achievement. This, seen from the regression coefficient, explains that the implementation of UKBM in the Semester Credit System influences Student Achievement. Meanwhile, to see the magnitude of the contribution of the independent variable UKBM to the dependent variable, it can be seen from the magnitude of the coefficient of determination (R Square). From the results of the regression analysis, the coefficient of determination produced is 0.469. This can be used to determine the percentage of the effect of the independent variable on the dependent. Thus the effect of the independent variable on changes in the dependent variable is 46.9%. This means that 46.9% of the Student Achievement variable can be explained by the UKBM variable in the Semester Credit System. Judging from its significance in supporting Student Learning Achievement, there is 53.1% which can be contributed by other variables not examined in this study. In addition, to find out the contribution of the variable UKBM in explaining the increase in student learning achievement is the calculation of the multiplication between the correlation coefficient (r) and beta (Standardized coefficients); known as the formula, SUKBM (Contribution of Independent Learning Activity Unit) = r x beta x 100% [14]. The contribution of each variable referred to in this study is shown in table 9 below:

Table 9. Calculation of the Amount of UKBM Contribution Variables UKBM Application in SKS in Explaining Student Achievement Using the SUKBM Formula

Variable	Correlation Coefficient (r)	Beta	UKBM Contribution in %
Application of UKBM in Semester Credit System	0,685	0,685	46,9%

Based on table 9 above, it can be seen that the contribution of UKBM to the dependent variable of student learning achievement is 46.9%. In other words, the application of UKBM in the Semester Credit System is very effective in changing the percentage of student learning achievement. Thus, the contribution of UKBM from the independent variable to the dependent variable proves that H0 is rejected and the hypothesis is accepted, namely that there is a contribution from the Implementation of UKBM in the Semester Credit System to Improve Student Achievement at Adventist High School Doyo Baru.

4. Discussion

The purpose of this discussion is to analyze, interpret and relate the findings of this study to the relevant theory and the findings of previous studies. The results of data analysis and hypothesis testing showed that the independent variable (UKBM Implementation in the Semester Credit System) was significantly correlated with the dependent variable (Student Learning Achievement). The correlation coefficient of the dependent variable (Student Learning Achievement) with the independent variable, namely, the Implementation of UKBM in the Semester Credit System is 0.685. In addition, the results of multiple regression analysis are known to have an R of 0.685. To determine the strength of the correlation can be seen from the size of the correlation. According to Young (1982: 317), the correlation measure is stated as follows:

1) 0.70 to 1.00 (both plus and minus) indicates a high degree of correlation.
2) 0.40 to < 0.70 (both plus and minus) indicates a substantial level of relationship.
3) 0.20 s.d. < 0.40 (both plus and minus) indicates a low level of relationship.
4) < 0.20 (both plus and minus) indicates no relationship [15].

This shows that the correlation of the independent variable (UKBM Implementation in Semester Credit System) with the dependent variable (Student Learning Achievement) is substantial. A positive number (plus) indicates a positive relationship between the independent variable (UKBM Implementation in the Semester Credit System) and the dependent variable (Student Learning Achievement), this means that if the independent variable is increased, the dependent variable will also increase, as well as if the independent variable is increased, the dependent variable will also increase. If the

independent variable is decreased, the dependent variable will also decrease. Likewise, the value of R Square (R2) or the adjusted coefficient of determination is 0.469. This value means that the influence of the independent variable (UKBM Implementation in the Semester Credit System) with the dependent variable (Student Learning Achievement) of 46.90% and the remaining 53.10% are variables that affect Student Learning Achievement and were not examined in this study. Based on the description above, it can be concluded that the implementation of UKBM in the Semester Credit System is very important in predicting Student Achievement.

1) **The Relationship of the Implementation of UKBM in the Semester Credit System to the Learning Achievement of Students**

The analysis of the results of the study showed that there was a significant relationship between the implementation of UKBM in the Semester Credit System and Student Achievement, which was 0.469 with a significance of 0.000. This finding shows that the implementation of UKBM in the Semester Credit System Improves Student Achievement in Doyo Baru Adventist High School.

2) **The Contribution of UKBM Implementation in the Semester Credit System to Students' Learning Achievements**

The amount of contribution given by the implementation of UKBM in the Semester Credit System to Improve Student Achievement in this study was 0.469. This shows that the large contribution made by the Implementation of Independent Learning Activity Units in the Semester Credit System Improves Student Achievement in Doyo Baru Adventist High School by 46.90%. One variable UKBM implementation in the Semester Credit System has contributed almost 50% to learning achievement.

5. Conclusion

Based on the results of the Bivariate correlation, it was obtained that r = 0.685 was significant at the 5% significance level. This shows that the correlation relationship is positive, this is indicated by the regression line equation, which is equal to = 75.042 + 0.087X, which confirms that the learning achievement of students has a unidirectional relationship of 75.042 + 0.087 (The Implementation of UKBM in the Semester Credit System). This shows that if the implementation of UKBM in the Semester Credit System is increased or increased, the learning achievement of students will increase, and vice versa. From the results of a simple linear regression analysis that has been done, the correlation coefficient (R) is 0.685; The coefficient of determination (R2) is 0.469 or 46.9%. Based on the magnitude of the correlation, it can be concluded that the independent variable (UKBM Implementation in the Semester Credit System) can be used to predict or explain the dependent variable (Student Learning Achievement).

This shows that there is a large contribution from the independent variable learning activity unit (UKBM Implementation in the Semester Credit System) to the dependent variable (Student Learning Achievement) in Doyo Baru Adventist High School which is 46.9%. Calculation through the formula SUKBM (Contribution of Independent Learning Activity Unit) = r x beta x 100%, also obtained the same value of UKBM contribution, which is 46.9%. That is, there are 46.9% of Student Achievement variables influenced by the Implementation of Independent Learning Activity Units in the Semester Credit System. This means that there are 53.1% of other factors that affect student achievement were not examined in this study.

References

[1]   Septiana, R., Listyono, L. and Ismail, I., 2020. Analisis Penerapan Unit Kegiatan Belajar Mandiri (UKBM) pada Pembelajaran Biologi. Bioeduca: Journal of Biology Education, 2(1), pp.57-66.

[2]   Ahmadi, I.K. and Amri, S., 2010. Strategi Pembelajaran Sekolah Berstandar Internasional dan Nasional. *Jakarta: Prestasi Pustakaraya*.

[3]   Direktorat Pembinaan SMA. 2017. *Pedoman penyelenggaraan sistem kredit semester (SKS) di SMA*. 1–36.

[4]   Dwi, S., Susilo, C., Islam, F. A., Purwokerto, U. M., Islam, F. A., & Purwokerto, U. M. 2020. *Pengaruh Unit Kegiatan Keberhasilan Belajar Siswa Belajar Mandiri (UKBM) terhadap Pendahuluan Pendidikan menurut Islam , atau pendidikan yang berdasarkan islam , dan / atau Menengah Atas , pembelajaran yang dilakukan mengutamakan keterlibatan siswa dala. 1*(1), 81–92.

[5]   Dasar, D. G. P. 2021. *MODUL BELAJAR MANDIRI CALON GURU Pegawai Pemerintah dengan Perjanjian Kerja Pedagogi*.

[6]   Ovando, M.N., 1993. Individualized learning modules. *International Journal of Educational Management*. 7(3), 24.

[7]   Sudjana, N., 2002. Dasar-dasar proses mengajar. *Bandung: Sinar Baru Algensindo*.

[8]   Sukmadinata, N., Syaodih.(2005) Landasan Psikologi Proses Pendidikan. *Bandung: PT Rosda Karya*.

[9]   Suryabrata, S., 2002. Psikologi pendidikan, Yogyakarta: PT. *Raja grafindo Persada*.

[10]   Deasyanti, & Aarmeini, A. 2007. *Perspektif Ilmu Pendidikan*. *16*, 13.

[11]   Wijaya, A.F., Sulton, S. and Susilaningsih, S., 2019. Penyelenggaraan sistem kredit semester di SMA Negeri 2 Kota Blitar. *Jurnal Kajian Teknologi Pendidikan*, *2*(3), pp.230-237.

[12]   Ary, D., Jacobs, L.C. and Razavieh, A., 1972. Introduction to Research in Education. Holt Reinhart and Winston. *Inc., New York*.

[13]   Santoso, S., 1999. SPSS mengolah data statistik secara profesional. *Jakarta: Elex Media Komputinda*.

[14]   Sudarmanto, R.G., 2005. Analisis regresi linear ganda dengan SPSS. Penerbit Graha Ilmu : YOGYAKARTA.

[15]   Sulaiman, W. 2004. *Analisis Regresi Sederhana Menggunakan SPSS.* Andi.

[16]   Fo'arota, T., 2006. Pengolahan Data Penelitian Perbandingan dan Hubungan. *Jakarta: FKIP*.