The Correlation Among Grade Point Average to The Students' Comprehensive Test Score at Faculty of Tarbiyah and Teacher Training IAIN Bukittinggi

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Abstract. this study aims to determine the correlation among students' Grade Point Average (GPA) to their comprehensive test scores at faculty of Tarbiyah and Teacher Training (FTIK) IAIN Bukittinggi. This research is a correlational research by using a quantitative approach. The population of this research was the graduates on generation X of FTIK IAIN Bukittinggi in 2019 totaling 211 people. The research samples were 28 people which determined by cluster random sampling technique. The data in this study were students' GPA and their comprehensive test scores for generation X FTIK IAIN Bukittinggi in 2019. By using product moment correlation analysis, a significant score is obtained among grade point average with a comprehensive test score that is 0.26361 where r = 0, 26361 and obtained a coefficient of determination that is 6,95%. The results showed that there is a correlation between grade point average with the comprehensive exam scores of FTIK IAIN Bukittinggi.

Keywords. Cumulatives Grade Points Average (GPA), comprehensive exam score

1 Introduction

According to Sri Mulyani, Grade Points Average is the score obtained by students which is the final score of all subjects taken in each semester which describes the teaching and learning process for each semester [1]. While according to Mentari, grade point average is a number that shows the achievements or success of student studies from the first semester to the last semester that have been agreed by the cumulative [2]. Thus, grade point average is a unit of final scores for each semester that has been accumulated.. Based on the academic guidelines of IAIN Bukittinggi comprehensive exams are tests conducted to test students' understanding and theoretical abilities in their field study in accordance with the study program, which has been arranged as follows: (1) Comprehensive exams can be taken by students who has passed all courses and practicum. (2) Comprehensive examinations are carried out in one assembly. (3) Comprehensive examination participants consist of a maximum of four students for each group. (4) Comprehensive examination material is determined by each faculty in accordance with learning achievements and graduate profiles. (5) Students who do not pass the comprehensive examination must take a repeat exam in accordance with the schedule. (6) Students who do not pass the comprehensive examination are not allowed to take the thesis examination [3].

This comprehensive exam covers three subjects, namely: Islamic knowledge, educational knowledge and students' field study in which the percentage for each of them is: 20 percent, 30 percent and 50 percent. Based on observations and document data that researchers obtained from the academic subdivisions of FTIK, it turns out that it is not always linear between the GPA with the student's comprehension scores. There are many previous studies that discuss grade point average and comprehensive test scores. The study was classified into at least two opinions, 1) research that found a correlation between grade point average and comprehensive test scores, for example: research conducted by Sri Mulyani (2015) stated that there was a positive and significant correlation between grade point average scores (GPA) with the comprehensive exam scores of geography education program students in the FKIP Unsyiah 2009 class [1]; Mentari (2017) stated that there was a significant correlation between the GPA with the FKY Unsyiah student comprehensive test scores [2]. 2) research that found the opposite, that there was no correlation between grade point average and comprehensive test scores, such as: research conducted by Fathurrahmi (2014) stated that there was no influence on grade point average (GPA) on the comprehensive exam scores of physics students at FKIP Unsyiah [4]; and Endra Prasetia (2018) states that there is no effect of the GPA on the comprehensive test scores of students of mathematics education at Muhammadiyah Purworejo University [5]. Looking at the phenomena of previous researches, there is an indication that there is no agreement yet relating to whether there is a correlation between grade point average and comprehensive test scores or not. It is assumed that there is a region bias, study program bias, student bias, exam material bias and other possibility biases relating to the correlation between grade point average and comprehensive exam scores. In other words, the results of previous studies cannot be generalized yet. This research was conducted to answer and prove doubt related to the correlation between grade point average and the comprehensive exam scores. Based on the description above, the purpose of this study is to find out whether there is a correlation between students' grade point average and their comprehensive exam scores at FTIK IAIN Bukittinggi.

2 Research Method

This research is a correlational research by using a quantitative approach. This research was conducted through collecting data in forms of numbers and sentences which were converted into numbers. Those numbers were analyzed in order to get scientific information [6]. According Suharsimi, correlational research is a research that is intended to determine whether there is a correlation between two or several variables [7]. The population in this study was the graduates of generation X ate Faculty of Tarbiyah and Teacher Training IAIN Bukittinggi in 2019, totaling 211 people consisting of 6 study programs. For more details, population distribution can be seen in the following table:

Table 1. Graduates of class x of FTIK IAIN Bukittinggi in 2019

No	Study Program	Total
1	Islamic Education Study	88 people
2	Arabic Language Education	3 people
3	English Language Education	17 people
4	Mathematics Education	28 people
5	Computer and Informatics Engineering Education	27 people
6	Counseling Guidance	48 people
	Total	211 people

Source: AKAMA FTIK IAIN Bukittinggi

The sampling technique used was cluster random sampling. Cluster sampling is a technique in choosing sample randomly based on the cluster [8]. The selected sample was the graduates of math study programs. The number of samples in this study was 28 people. Data collection techniques used in this study were documentation. According to Riduwan, Documentation is aimed to obtain data directly from the research site including relevant books, regulations, activity reports, photographs, documentary films, data relevant to research [9]. Data collection techniques used in this study was documentation in the form of students' Grade Points Average (GPA) and the score of their graduation exam for the tenth generation of FTIK IAIN Bukittinggi in 2019. For more details, the selected sample can be seen in the following table:

Table 2. Grade points average (GPA) and comprehensive test score for selected sample

No	GPA (X)	Comprehensive Test Scores (Y)	No	GPA (X)	Comprehensive Test Scores (Y)
1	3,58	77	15	2,98	75
2	3,01	75	16	2,91	78
3	3,18	79	17	3,11	78
4	3,33	73	18	2,86	70
5	3,68	79	19	3,1	75
6	3,03	77	20	3,39	71
7	3,18	71	21	3,29	74
8	3,29	75	22	3,44	75
9	3,3	81	23	3,48	76
10	3,29	78	24	3,25	73
11	3,60	80	25	3,08	73
12	3,52	76	26	3,38	80
13	3,01	74	27	2,79	76
14	2,98	76	28	2,97	78

Source: AKAMA FTIK IAIN Bukittinggi

3 Result and Discussion

3.1 Data Analysis

Before the authors analyzed the correlation and prove the hypothesis between students' Grade Points Average (GPA) with comprehensive test scores, it is necessary to test the data, whether the data taken were normally distributed, linear and did not occur heteroscedasticity:

1. Normality Test
   After calculating the normality test data using the Liliefort test, the result obtained stated as followed:
   a. Normality test data for cumulative Grade Points Average (GPA) obtained $L_0 = 0,1008$ while for $L_{tab} = 0,167$ with $\alpha = 0,05$ which means that $L_{tab} > L_0$ so that it can be concluded that the data were normally distributed at the real level $\alpha = 0,05$.
   b. Data normality test for comprehensive test scores obtained $L_0 = 0,0832$ while for $L_{tab} = 0,167$ with $\alpha = 0,05$ which means that $L_{tab} > L_0$ thus it can be concluded that the data were normally distributed at the real level $\alpha = 0,05$.

2. Linearity Test
   Linearity test was done through testing the null hypothesis, that the linear regression against the opposite hypothesis in which it was found that the regression was not linear, where

the test used was the F test. Based on the calculations that have been done, the score of F_{count} = 0,5601 while F_{tab} = 5,7872, at the level of 95% significant or α = 0,05, it shows that the score of $F_{count} < F_{tab}$ so that it can be concluded that the data was linear.

3. Heteroscedasticity Test

Heteroscedasticity test aims to test whether there is an inequality of variance from the residuals of one observation to another in the regression model. The test used was the Glejser test with SPSS. In regression analysis, a good model of regression is when there is no heteroscedasticity [10]. The results shown in Table 3 below:

Table 2. Heteroscedasticity Test Using The Glejser Test With Spss Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-9.436	7.110		-1.327	.194
	IPK	3.580	2.071	.292	1.728	.094
	a. Dependent Variable: RES2					

Based on the result above, it was known that the significance score was 0,915 > 0,05, so it can be concluded that there was no heteroscedasticity

4. Hypothesis Test

Considering the requirements needed as a model of correlation between the dependent variable Y and the independent variable X have been fulfilled, then the next analysis to do was testing the research hypothesis. The hypothesis of this study was: There is a correlation between grade point average (GPA) and the comprehensive exam scores of FTIK IAIN Bukittinggi students. Hypothesis testing was done by Pearson correlation coefficient statistical tests. Furthermore, the interpretation of the correlation coefficient r value can be seen in the table 4:

Table 4. The interpretation of the correlation coefficienter

Coefficient Interval	Relationship Level (Category)
0.80 – 1,000	Very Strong
0,60 – 0,799	Strong
0,40 – 0,599	Strong Enough
0,20 – 0,399	Low
0,00 – 0,199	Very Low

Before the Pearson correlation coefficient statistical test was conducted it was beginning by calculating the product moment formula to get the score of r, which was found that the degree of correlation between grade point average to comprehensive test scores is 0,26361 or r = 0,26361. After a statistical test of Pearson correlation coefficient, it was found the score of T_{count} = 1,3934 is while the score of T_{tab} = 2,056 at the real level α = 0,05, which shows that $T_{count} > T_{tab}$. Thus, it can be concluded that there is a significant correlation with the low magnitude between grade point average to comprehensive test scores. From the simple correlation coefficient, it was gotten a simple determination coefficient score was 6,95%, which means that the variable X or cumulative Grade Points Average contributes as 6,95% to the variable Y or comprehensive test scores. The coefficient of determination explains that if the score of one variable increases, the score of the other variable will also increase, or vice versa.

3.2 Discussion

Based on the results of the calculation of the hypothesis test that has been done, it can be concluded that there is a low correlation between grade point average with comprehensive test scores. It can be seen from the correlation score obtained between the two variables using the product moment formula in which score of $r = 0{,}26361$ (low category). Through statistical tests that also use the previously obtained r score, the score of $T_{count} = 1{,}3934$ while the score of $T_{tab} = 2{,}056$, in which the real level $\alpha = 0{,}05$. It means that $T_{count} > T_{tab}$ so that it can be concluded that H_0 is rejected, or H_1 accepted. Thus, it was concluded that there was a significant correlation with the low category between grade point average and comprehensive test scores. In addition, the result shows a positive r score which means that if grade point average increases or decreases, it will be followed by an increase or decrease in the comprehensive test score. From the correlation scores obtained previously, it was found that grade point average contributed 6,95% to the comprehensive exam scores. The results obtained are different from the results of the previous study entitled "The influence of grade point average (GPA) on the Physics FKIP Unsyiah students' comprehensive test scores" by Fathurrahmi (2014) and "the effect of the GPA on the comprehensive test scores of mathematics education students at the Muhammadiyah Purworejo University" by Endra Prasetia (2018). The results of these studies show had no effect on the GPA on comprehensive test scores. The difference in these findings may be caused by many factors, such as: differences in study programs, places, students, exam materials and others.

4 Conclusion

Based on the results of the research, it can be concluded that there is a significant correlation with the low magnitude among grade point average to comprehensive test scores. The results obtained are different from some previous researches. Thus, it can be stated that there is no agreement relating to the presence or absence of correlation. This might be caused by differences in study programs, places, students, exam materials and others related to the correlation among grade point average and comprehensive test scores. It is recommended for further researchers to further examine the factors that influence the correlation between cumulative Grade Points Average and comprehensive test scores.

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