EFFECT OF EDUCATION AND OCCUPATION ON THE QUANTITY OF RESEARCH

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ABSTRACT
The low interest in research in several places, especially in Indonesia, is influenced by several factors. This study identifies the validity of two factors that can affect the number of lecturers' research. The goal to be achieved in this research is to find out how much education and job title affect the number of lecturers' research. The research was conducted using descriptive quantitative methods with 41 samples of respondents. The results of this study indicate that based on the ANOVA test, the F value is 1.864 with a sig. 0.169. In the regression test, the t value was obtained at 1.153 with a sig value. 0.256 and 0.067. Through these values, it can be concluded that education and position have no significant effect on the quantity of lecturer research.

KEYWORDS Education, Position, Research.

INTRODUCTION

Promotion for a lecturer is something that must be done in order to improve the quality of lecturers and a form of government award for achievements that have been made. Lecturers have the main task of tri dharma, which will produce a research concept and scientific publications that can enrich the repertoire of knowledge for education and teaching. In addition, the tri dharma has a great influence on the achievements of lecturers which describes the professionalism of the lecturer as a scientist.

Rules regarding promotion/promotion of lecturers have been regulated in legislation, as well as other rules written in ministerial regulation Number 17 of 2013 concerning Lecturer Functional Positions and Credit Scores, Joint Regulation of the Minister of Education and Culture and Head of the State Civil Service Agency Number 4/VIII/PB/2014 and Number 24 of 2014, Joint Regulation of the Minister of Education and Culture and the Head of the State Civil Service Agency Number 4/VIII/PB/2014 and Number 24 of 2014 concerning Provisions concerning for the Implementation of Assessment of Lecturers' Functional Position. The regulation provides more specific information on the category of educators in higher education with the National Lecturer Identification Number (NIDN), Special Lecturer Identification Number (NIDK), and Educator Serial Number (NUP). Through the various guidelines that have been regulated, it is necessary to adjust the rules used so that all higher education institutions can follow these rules. The lecturer's assessment process can accommodate the achievements of

lecturers' scientific work so that lecturers who have good achievements in scientific works and others get good awards (DIKTI, 2019).

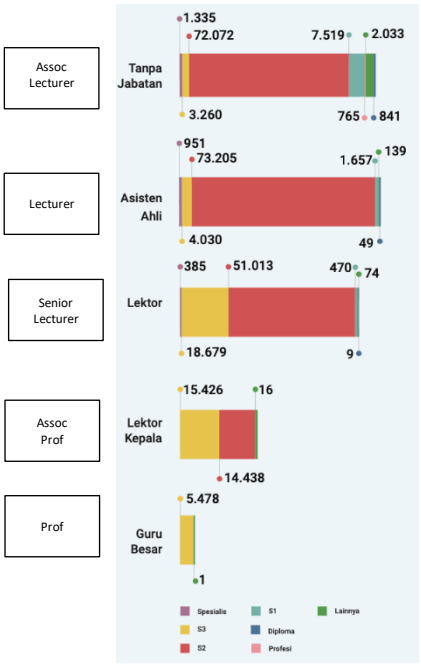

Figure 1. A number of lecturers by functional position (Kemendikbud, 2020).

In Figure 1 there are as many lecturers without positions with details of 1,355 specialist lecturers, 3,260 lecturers with doctoral education, 72,072 lecturers with master's education, 7,519 lecturers with undergraduate education, 765 lecturers with professional education, 841 lecturers with diploma education and 2,033 other lecturers spread throughout Indonesia. Lecturers with functional positions are expert assistants with details of 951 specialist lecturers, 4,030 lecturers with doctoral education, 73,205 lecturers with master's education, 1,657 lecturers with undergraduate education, 49 lecturers with diploma education, and 139 other lecturers spread throughout Indonesia. Lecturers with functional positions of lector with details of 385 specialist lecturers, 18,679 lecturers with doctoral education, 51,013 lecturers with master's education, 470 lecturers with undergraduate education, 9 lecturers with diploma education, and 74 other lecturers spread throughout Indonesia. Lecturers with the functional position of head lector with details of 15,426 lecturers with doctoral education, 14,438 and 16 other lecturers spread throughout Indonesia. Lecturers with functional positions of professors with details of 5,478 lecturers with doctoral education, as well as 1 other lecturer spread throughout Indonesia (Kemendikbud, 2020). Based on the data from the Ministry of Education and Culture, it can be seen that lecturers without functional positions, expert assistant functional positions, and lector positions dominate with higher numbers when compared to lecturers who have functional positions as head lectors and professors. The performance of lecturers in the field of research and scientific publications still needs improvement and one way that can be done is by motivating and facilitating lecturers(Retnowati, 2018).

Based on these data, the researcher intends to conduct research in order to find out the things that affect the promotion of lecturers' functional positions.

RESEARCH METHOD

a. Research design

This research was conducted through the following stages of research:

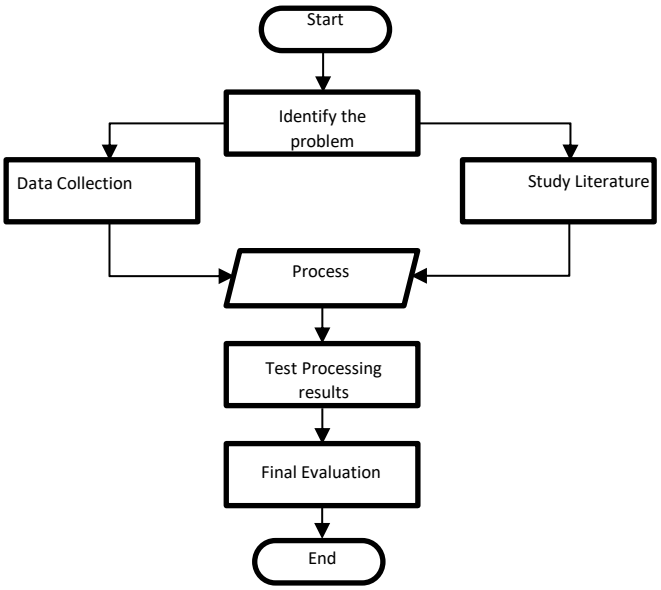

Figure 2. Flowchart of research stages

Information :

a. Perform problem identification
   Researchers identify problems through the relationship between the level of education that has been taken by lecturers and job titles to the number of studies conducted in one semester.
a. Data collection
   The data was obtained through the distribution of questionnaires conducted on a number of samples taken at random.
b. Literature review
   At this stage, the researcher made a comparison with several previous researchers who conducted similar research to this study. The research is used as the beginning of the development of the research carried out

c. Process
   In this stage, the researcher collects materials and data for further processing of the data that has been obtained.
d. Testing the results of data processing
   The data was obtained through the results of questionnaires distributed to a sample of respondents, then tested using SPSS
e. Carry out the final evaluation
   The results of data processing are finally evaluated on how much influence the education and job position have on the quantity of research conducted by lecturers.

b. Research methods

The research method used in this research is descriptive quantitative research. This method is used to provide an overview, and explanation of existing situations and phenomena to be used as research variables from existing events and are taken through the results of interviews, observations and questionnaires.(Nurhaedah, Mardjuni, & Saleh, 2018). This research was conducted to determine the value of independent variables, either one or more variables without making comparisons or connecting with other variables. This type of method uses numbers, starting from data collection, interpretation of the data, and the appearance of the results obtained(Jayusman & Shavab, 2020). The stages of the research were carried out as follows:

1. Identify the problem
   Some of the reasons why lecturers don't like doing research in Indonesia include lecturers preferring to teach rather than do research. Many universities assess that lecturers' income is proportional to teaching time. This is one of the triggers why lecturers prefer to teach compared to doing research(Lukitaningtias, 2018). In addition, the positions/positions held by lecturers at several campuses can influence the amount of research carried out due to the busy activities they carry out.
2. Data Collection
   a. Population
      The population is a generalization area consisting of objects and subjects that have certain qualities and characteristics determined by the researcher to be studied and then drawn conclusions(SM, Lubis, & Sabrina, 2020). The study was conducted using a population in the Surakarta area. Data collection was done through a random sampling technique.
   b. Sampling
      The sample is part of the population obtained using a certain method which is then considered to be representative of the population which is the focus of the research method (Fira fathonah, 2020). The sampling determination technique is a method used to determine the research sample. The population sample should not be less than 5% of the existing population.
      In this study, researchers used samples as supporting data to be processed. The population in this study was 603 lecturers and used a 15% precision level. In determining the sample, it is calculated using the formula :

$$n = \frac{N}{N.d^2 + 1}$$

n= samples
N= total population
d2= set precision
based on this formula, the researcher obtained a sample of 41 respondents. This amount was obtained from lecturers in the Surakarta area.

c. **Literature review**

Table 1. Literatur Review

Researcher	Title	Method	Results
(Lukitaningtias, 2018)	Analysis of Factors Affecting Research Performance of	Explanatory research	Motivation, ability, and expertise as well as organizational resources have a

	Middle Cluster Private Universities Lecturers in Malang City		significant effect on research performance
(Wahyudi, 2020)	Lecturer Performance: Contribution to Higher Education Accreditation	Inductive method	Education contributes 37.5% to accreditation, Research Performance contributes 50% to research, PKM performance contributes 50% to Accreditation
(Wahyuni, 2019)	The Influence of Competence, Work Motivation and Job Satisfaction on Lecturer Performance	Explanatory research	Job satisfaction is very influential on the performance of lecturers, followed by competence, and work motivation

RESULT AND DISCUSSION

In this study, data analysis using quantitative analysis was carried out to examine the effect of education and job position on the quantity of research on lecturers. To process the data obtained through distributing questionnaires, the researchers used SPSS software.

1. Results
   a. The influence of education on the position

      Through the results of distributing questionnaires conducted by researchers, data were obtained from as many as 9 lecturers with doctoral education and 32 lecturers with master's education.

Table 2. Variable education dan variable research quantity

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Education	.	Enter

a. Dependent Variable: Research Quantity

b. All requested variables entered.

Table 2. shows the variables that are included in the model, the variables that are excluded from the model, and the method of analysis. From the table, it can be seen that the variable entered into the model is Education, then no variables are excluded from the model and the analysis method used is the enter method (simultaneously/together).)

Table 3. Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.062[a]	.004	-.022	1.58606
a. Predictors: (Constant), Education				

Table 3 shows R, R Square, Adjusted R Square, and the Standard error of the estimate, each of which will be explained as follows.

1. R = 0.062, meaning that the correlation coefficient is 0.062.
2. R Square = 0.004, indicating the coefficient of determination is 0.004. This means that the contribution of Education to the Quantity of Research is 0.4%, and the rest (99.6%) comes from other variables.
3. Adjusted R Square = -0.022. The independent variable has been adjusted and the value is more stable

Tabel 4. Anova

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.380	1	.380	.151	.700[b]
	Residual	98.108	39	2.516		
	Total	98.488	40			
a. Dependent Variable: Research Quantity						
b. Predictors: (Constant), Education						

Table 4 shows the results of testing the coefficient of determination. The F value is known to be 0.151 with a Sig value. 0.700. Because the value of Sig. more than = 5%, it can be seen that the above effect is not significant.

Table 5. Coefficients

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.424	.771		3.145	.003
	Education	.233	.598	.062	.389	.700
a. Dependent Variable: Research Quantity						

Table 5 shows the regression equations and their tests. The regression equation obtained from the Unstandardized Coefficients column, column B, is Z' = 2.424 +0.233X. To test the regression line coefficients that need to be considered are the values of t and Sig. on the Education line. From the table, it can be seen that the t value is 0.389 with a Sig value. is 0.700. It can be concluded that education does not affect the quantity of research.

b. The influence of education on the position

Table 6. Position variable and research quantity. variable

Variables Entered/Removed[a]			
Model	Variables Entered	Variables Removed	Method

1	Job Position	.	Enter
a. Dependent Variable: Research Quantity			
b. All requested variables entered.			

Table 6 shows the variables that are included in the model, the variables that are excluded from the model, and the method of analysis. From the table, it can be seen that the variable entered into the model is Job Position, then no variables are excluded from the model and the analysis method used is the enter method (simultaneously/together input).

Table 7. Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.240[a]	.057	.033	1.54278

a. Predictors: (Constant), Job Position

a. Table 7 shows R, R Square, Adjusted R Square, and the Standard error of the estimate, each of which will be explained as follows.
b. R = 0.240, meaning that the correlation coefficient is 0.240.
c. R Square = 0,057, indicating the coefficient of determination is 0,057. This means that the contribution of Position to Research Quantity is 5.7%, and the rest (94.3%) comes from other variables.
d. Adjusted R Square = 0.033. The independent variable has been adjusted and the value is more stable.

Table 8. Anova

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.661	1	5.661	2.378	.131[b]
	Residual	92.827	39	2.380		
	Total	98.488	40			

a. Dependent Variable: Research Quantity

b. Predictors: (Constant), Job Position

Table 8 shows the results of testing the coefficient of determination. The F value is known to be 2,378 with a Sig value. 0.131. Because the value of Sig. more than = 5%, it appears that there is no significant effect.

Table 9. Coefficients

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.493	.824		1.812	.078
	Job Position	.307	.199	.240	1.542	.131

a. Dependent Variable: Research Quantity

Table 9 shows the regression equations and their tests. The regression equation obtained from the Unstandardized Coefficients column in column B is Z' = 1.493 +0.307Y. To test the regression line coefficients that need to be considered are the

values of t and Sig. on the Job Title line. T count is 1.542 and the value of Sig. is 0.131. It can be concluded that the position has no effect on the quantity of research.

c. The influence of education and occupation on the quantity of research

Table 10. Variables of education and position on research quantity variables

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Job Position, Education		. Enter

a. Dependent Variable: Research Quantity

b. All requested variables entered.

Table 10 shows the variables that are included in the model, the variables that are excluded from the model, and the method of analysis. From the table, it can be seen that the variables entered into the model are Education and Occupational Position, then no variables are excluded from the model and the analysis method used is the enter method (entering simultaneously/together).

Table 11. Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.299[a]	.089	.041	1.53631

a. Predictors: (Constant), Job Position, Education

a. Table 11 shows R, R Square, Adjusted R Square, and the Standard error of the estimate, each of which will be explained as follows.
b. R = 0.299, meaning that the correlation coefficient is 0.299.
c. R Square = 0.089, indicating a coefficient of determination of 0.089. This means that the contribution/contribution of Education and Employment to the Quantity of Research is 8.9%, and the rest (91.1%) comes from other variables.
d. Adjusted R Square = 0.041. The independent variable has been adjusted and the value is more stable.

Table 12. Anova

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.798	2	4.399	1.864	.169[b]
	Residual	89.690	38	2.360		
	Total	98.488	40			

a. Dependent Variable: Research Quantity

Table 12 shows the results of testing the coefficient of determination. Value of Sig. 0.169 and F of 1.864. Because the value of Sig. more than = 5%, it can be concluded that Education and Position have no effect on Research Quantity.

Table 13. Coefficients

Coefficients						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.181	1.403		.129	.898
	education	.735	.638	.196	1.153	.256
	Job Position	.413	.218	.322	1.889	.067
a. Dependent Variable: Research Quantity						

Table 13 shows the regression equations and their tests. The regression equation obtained from the Unstandardized Coefficients column, column B, is Y' = 0.181 +0.735X +0.413Y. To test the regression line coefficients that need to be considered are the values of t and Sig. in the line of Education and Occupation. T count obtained 1.153 and the value of Sig. 0.256 and 0.067. It can be concluded that Education and Position have no effect on Research Quantity.

CONCLUSION

Based on the results of the analysis and discussion that have been described in the discussion above, the researchers can conclude as follows:

1. There is no significant effect between the education taken by the lecturer on the quantity of research.
2. There is no influence between positions on the quantity of research. The job position carried out by the lecturer has no effect on the amount of research carried out because it is more influenced by other factors.

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