

Learning Effect Using Illustration in Multimedia Communication to Student Achievement

Yusmar Ali, SE, M.Si¹, Siti Aisyah, S.Pd, M.Si²

Politeknik Negeri Media Kreatif, Multimedia Concentration Courses, Jakarta, Indonesia

Abstract: *Multimedia communication is the presentation of digital information in the form of text, images, sound, motion graphics, web sites, and video. Multimedia communications program offers a balance of web design, digital photography and illustration, video editing, art instruction, interactive technologies, and academic courses. Learning achievement can be demonstrated through the value given by a professor of the subjects that have been studied by a student such as creating E-Learning or university broadcast like radio communication. Each student who participated in the lecture course always expect will generate good learning achievement. Similarly, the professors who expect success in teaching subjects that are difficult to understand by students. It is therefore expected that the good cooperation between faculty and students. Lecturer held learning to use illustrations on subjects of multimedia communication, not just theory. This study shows the influence of learning multimedia communication using illustration of the achievements of the students' scores on the course.*

Keywords: Multimedia communication, Regression Analysis, Illustration.

1. Introduction

Multimedia communications degrees are designed to develop the technical skills essential for professional competence in the contemporary digital media environment. Visual literacy, creativity, and collaboration are integrated into a curriculum that teaches you how to create multimedia content that responds to human interaction. Learning achievement can be demonstrated through the value given by a professor of the subjects that have been studied by a student such as creating E-Learning or university broadcast like radio communication. Many students have some difficulties to learn this lecture so they take the other course for this lecture. This paper will appear whether the learning using illustration can help this problem.

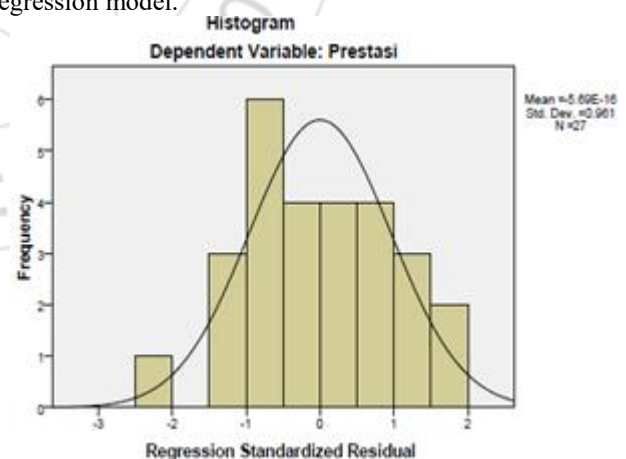
Success in education is influenced by several factors which are interconnected through internal and external factors. Internal factors such as the level of emotional intelligence, psychological state, motivation and interest in learning. Interest in learning is also influenced by the readiness of students to receive lessons. While external factors include the state of the economy, environment, friends, and enthusiastic students to the courses taken. Students will be enthusiastic about the professors who teach can be seen from the appearance, speech, seriousness, many tasks assigned, and the most important is the method of teaching provided. In this study will be discussed with the teaching effect illustration / case study on students' academic achievement.

Learning achievement can be demonstrated through the value given by a professor of the subjects that have been studied by a student. Each student who participated in the lecture course always expect will generate good learning achievement. Learning achievements for students who follow courses Polytechnic multimedia communication is the value of science subjects multimedia communication itself. This study has tested every item that will be given to students by using SPSS 17.0 is to test the validity and reliability testing. The result is that each item is given a valid and reliable.

2. Classical Assumption Test (Influence of Multimedia Communication Learning using Illustrations and Case Studies of Student Achievement)

2.1 Normality Test

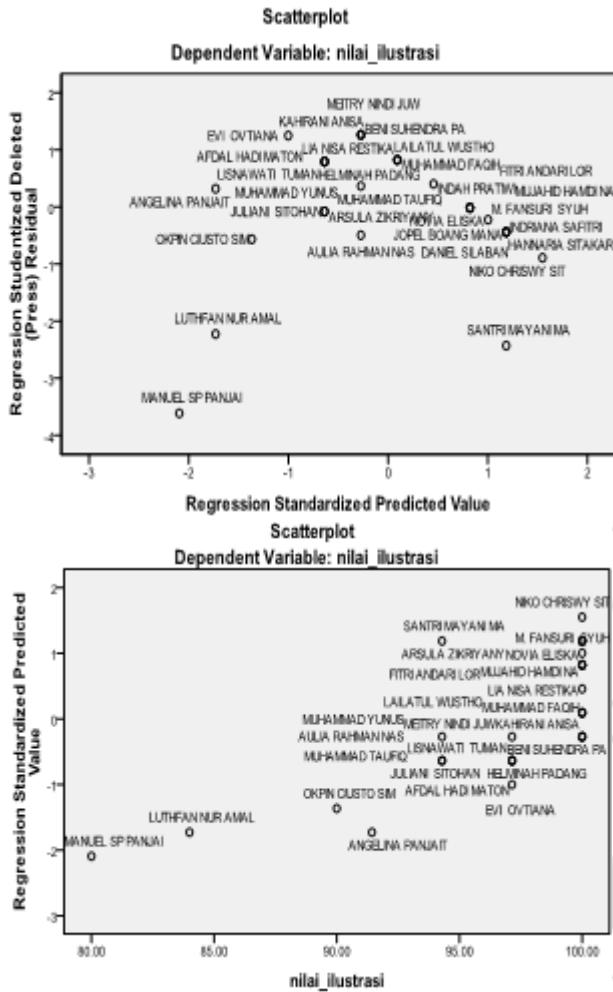
The use of regression models for prediction will generate an error (residue), which is the difference between the actual data with the data forecasting. Residues that there should normally distributed. Normality test aims to test whether the regression model independent and dependent variables have a normal distribution or not. Facilities histogram and normal probability plots will know normality of residuals of the regression model.



In the histogram, the data distribution of the residual value (error) showed a normal distribution (bell-shaped picture). Residual normality test by using the graph is to see the spread of the data on the source of the diagonal in the graph Normal PP Plot of regression standardized residuals. As a basis for decision-making, if the dots spread around the line and follow the diagonal line of the residual value of the normal distribution. Because the points are spread around the line, then the assumption of normality of the distribution of residual met.

2.2 Homoscedasticity Test

Residues that there should have constant variance (homoscedasticity). If the variance of the residuals is increasing or decreasing in a certain pattern, it is called with heteroscedasticity. This test uses the following Scatterplot:



Scatter visible above data do not show a specific pattern, eg pattern of ascending to the upper right, or down to the upper left, or certain other patterns. This shows the regression model is free from heteroscedasticity.

2.3 Partial Test (Uji T)

Partial test is used to determine the effect of each independent variable on the dependent variable. If Sig.Hitung > 0.05, tolak H₀, H_a accepted. Partial test results of this study can be seen in the following table:

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	119.835	34.847		3.439	.002
	nilai_illustrasi	-.398	.354	-.219	-1.124	.272

a. Dependent Variable: nilai_akhir

The above table shows that significant value to the value greater than 0.05 illustrations of 0.272 means that there is influence between the value of using illustrations of the achievements.

2.4 F Test

This test was conducted to determine the influence of independent variables on the dependent variable simultaneously. If the value of Sig > 0,05, then the alternative hypothesis is accepted. The yield on the F test can be seen in the following table:

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	26.570	1	26.570	1.264	.272 ^a
	Residual	525.430	25	21.017		
	Total	552.000	26			

a. Predictors: (Constant), nilai_illustrasi

b. Dependent Variable: nilai_akhir

Based on Table Annova above, the probability value or Sig. is 0.272. Because the value is greater than 0.05, then the influence of the two variables simultaneously (simultaneously), the influence of learning multimedia communication using illustration / case studies of student achievement is real or meaningful (H_a accepted).

3. Result and Discussion

3.1 General description of test result of student

Descriptive Statistics

	Mean	Std. Deviation	N
nilai_akhir	79.5000	5.48823	30
nilai_illustrasi	96.9430	4.98412	30

Correlations

		nilai_akhir	nilai_illustrasi
Pearson Correlation	nilai_akhir	1.000	.756
	nilai_illustrasi	.756	1.000
Sig. (1-tailed)	nilai_akhir	.	.000
	nilai_illustrasi	.000	.
N	nilai_akhir	30	30
	nilai_illustrasi	30	30

- The average value of multimedia communication with illustrations (the number of 30 pieces of data) is 96.94 with a standard deviation of 4.98.
- The average value of the end of the course multimedia communication (the number of 30 pieces of data) was 79.5 with a standard deviation of 5.48.
- Large relationship between the variables with the value of the final value calculated multimedia communication illustrated by the correlation coefficient is 0756. This shows a very close relationship (closer to 1). Towards a positive relationship (no negative sign in 0756) shows that more meetings on subjects multimedia communication using the illustration of students' final grades in the subjects of multimedia communication will be greater or higher.
- The level of significance probability 0.000 means far below 0.05 then the very real correlation between the variables

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	499.530	1	499.530	37.401	.000 ^a
	Residual	373.970	28	13.356		
	Total	873.500	29			

a. Predictors: (Constant), nilai_illustrasi

b. Dependent Variable: nilai_akhir

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.225	13.217		-.093	.927
	nilai_illustrasi	.833	.138	.756	6.116	.000

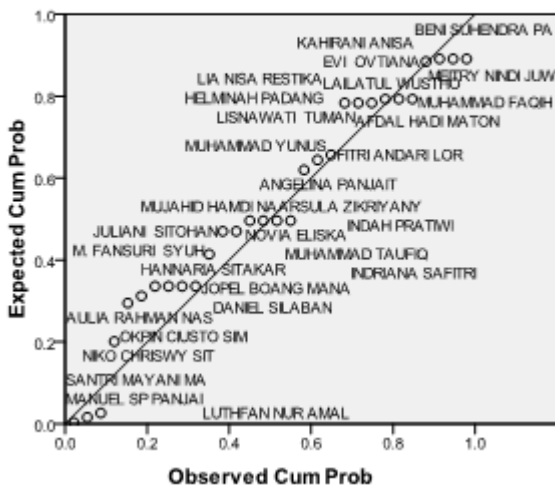
a. Dependent Variable: nilai_akhir

On coefficient table, there is a constant value of linear equation will used in this research. Based on the coefficient table, the linear regression equation is as follows:

$$Y = -1.225 + 0.833X$$

The regression coefficient for 0833 states that any additions (for the sign +) 0833 the value of teaching by using illustrations will enhance the students' final grades by 0833, and vice versa.

Normal P-P Plot of Regression Standardized Residual
 Dependent Variable: nilai_illustrasi



3.2 Hypothesis test

Ha: Significant regression coefficients

Ho: Regression coefficients is not significant

- If probability > 0.025, then H₀ accepted.
- If probability < 0.025, then H₀ rejected.

The test was done two sides, so that the probability value = 0.05/2=0.025.

Decision:

It appears that the column Sig / significance is 0.000, or probability far below 0.025. Then H₀ is rejected, or significant regression coefficient, or learning multimedia communication using illustrations or case study actually significantly affect student achievement in the subject multimedia communication.

4. Conclusion

Based on the previous explanation, it can be concluded that learning multimedia communication using illustrations or case study actually significantly affect student achievement in the subject multimedia communication.

References

- [1] Ahmadi, Abu and Tri Pasetya, Joko. 2005. *Strategi Belajar Mengajar*. Bandung :Pustaka Setia.
- [2] Brophy, J. 2004. *Motivating Student To Learn*. Second Edition. Lawrence Erlbaum Associates. London.
- [3] Catharina Tri, 2005. *Psikologi Pembelajaran*, Semarang : UNNES Press.
- [4] Depdikbud, 1991. *Peraturan P4*. Jakarta :Depdikbud. Dimiyati, Mudjiono. 2009. *Belajar dan Pembelajaran*. Jakarta: Rineka Cipta.
- [5] Lubis, Suwardi. 2005. *Sistem Komunikasi Indonesia*. Medan: Bartong Jaya.
- [6] Muzakir, Ahmad and Sutrisno, Joko. 1997. *Psikologi pendidikan*. Jakarta :Pustaka
- [7] Purwanto, Ngalim. 2000. *Ilmu Pendidikan Teoretis dan Praktis*. Bandung: PT Remaja Rosdakarya
- [8] Slameto, 2011. *Belajar dan Faktor-faktor yang Mempengaruhinya*. Jakarta: PT. Rineka Cipta.
- [9] Sugiono. 2011. *Metodologi Penelitian Pendidikan*. Bandung : Alfabeta.
- [10] Winkel. 1999. *Psikologi Pengajaran*. Jakarta: Grasindo.