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Influence of Decorative Drawing Skills on the Learning Outcomes of Batik Phase F Students of Creative Batik and Textile Craft at SMK Negeri 1 Jabon

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Abstract

The purpose of this research is to find out: 1) To find out how the decorative skills of phase E KKBT students at SMK Negeri 1 Jabon, 2) To determine the learning outcomes of batik craft students in phase F KKBT SMK Negeri 1 Jabon, 3) To determine the effect of students' decorative drawing skill on improving student learning outcomes in drawing batik craft in phase F KKBT students of SMK Negeri 1 Jabon. This research uses quantitative methods with a sample of 33 students. The instrument in this study was a student batik performance test assessment sheet. The data collection technique was a performance test assessment with simple regression analysis. The results of the study stated: 1) The level of completeness of the decorative variety shows that there are 11 (33%) students who are not complete, and there are 22 (67%) students who are complete. 2) The level of batik completeness shows that 6 (18.18%) students are not complete, and there are 27 (81.81%) students who are complete. 3) There is an effect of knowledge of decorative varieties on batik learning outcomes with the demonstration of variations from the batik learning outcomes variable (Y) caused by skill of decorative varieties (X) of 91.8%.

Keywords: Decorations, Learning Results, Batik

Abstrak

Tujuan dilakukannya penelitian ini yakni untuk mengetahui: 1) Untuk mengetahui bagaimana kemampuan ragam hias peserta didik fase E KKBT SMK Negeri 1 Jabon, 2) Untuk mengetahui hasil belajar batik peserta didik fase F KKBT SMK Negeri 1 Jabon, 3) Untuk mengetahui adanya pengaruh kemampuan menggambar ragam hias peserta didik terhadap peningkatan hasil belajar peserta didik dalam menggambar batik pada peserta didik fase F KKBT SMK Negeri 1 Jabon. Penelitian ini menggunakan metode kuantitatif dengan sampel sebanyak 33 peserta didik Instrumen dalam penelitian ini adalah lembar penilaian tes kinerja batik peserta

didik. Teknik pengumpulan data yang digunakan berupa penilaian tes kinerja dengan analisis regresi sederhana. Hasil penelitian menyatakan: 1) Tingkat ketuntasan ragam hias menunjukkan terdapat 11 (33%) peserta didik yang tidak tuntas, dan terdapat 22 (67%) peserta didik yang tuntas., 2) Tingkat ketuntasan batik menunjukkan terdapat 6 (18,18%) peserta didik yang tidak tuntas, dan terdapat 27a(81,81%) peserta didik yang tuntas., 3) Ada pengaruh kemampuan ragam hias terhadap hasil belajar batik dengan ditunjukkannya variasi dari variabel hasil belajar batik (Y) yang disebabkan oleh kemampuan menggambar ragam hias (X) sebesar 91,8%.

Kata kunci: *Ragam Hias, Hasil Belajar, Batik*

Introduction

SMK Negeri 1 Jabon is a public vocational school in the Sidoarjo area which has the vision 'Realising SMK Negeri 1 Jabon, which is independent and has a global outlook, able to produce graduates who are superior in technology, professional, entrepreneurial, cultured, environmentally sound and noble'. This school has various majors, including Automotive Light Vehicle Engineering, Industrial Electronics Engineering, Multimedia, Fashion Management, Creative Batik and Textile Craft, Creative Leather and Imitation Craft. Creative Batik and Textile Craft, better known as KKBT, is one of the competencies of expertise at SMK Negeri 1 Jabon, which contains competencies regarding knowledge skills and attitudes to be competent in terms of 1) Designing motifs and craft designs; 2) Perform batik colouring with natural and synthetic dyes; 3) Make written and stamped batik 4) Make screen printing; 5) Make weaving; 6) Supervise the quality of craft production.

The batik element is one of the elements that students receive when they are at level XI odd semester phase F. The material that students receive in the batik element here is written batik. Written batik material is one of the materials in the batik element taught at the school, which focuses on teaching batik-making techniques by writing or drawing patterns on cloth by hand using traditional tools such as canting and malam (wax). In this subject, students are taught to understand and master the basic techniques of making written batik, starting from introducing materials and tools, making patterns, and colouring and finishing batik.

The basic elements of batik were given to students at Level X or Phase E in the Business Process element of the Creative Industry in Craft Design and Production, and decorative material was to be used at the next level. When students are given decorative material, data from the field shows that 33% or 11 students do not complete it because their score is below the KKTP.

Mastery of decorative drawing skills is one of the important factors that can affect the final batik produced by students. This statement is in line with the theory of motor skills, which provides a basis for understanding how motor skills, especially fine motor skills and motor control, affect the final result of batik, both in terms of line accuracy, detail and the beauty of the resulting pattern (Eka, 2022). These decorative drawing skills include not only the ability to draw different types of patterns but also how to integrate these elements into batik designs

that are aesthetically pleasing and adhere to set standards (Kiram, 2020). Although decorative materials are an important part of the batik learning process, students still face challenges in applying these skills. This can be seen in the students' finished batik work, which is often suboptimal in terms of motif creativity, colouring techniques and overall composition, which can lead to a reduction in students' batik learning outcomes.

Decorative drawing significantly influences batik learning outcomes (Batubara, 2019). Therefore, it is important to conduct research that can reveal the extent of the influence of decorative drawing skills on the quality of batik learning outcomes of Phase F students of SMK Negeri 1 Jabon. Therefore, the researcher is interested in conducting research entitled 'The influence of decorative drawing skills on the learning outcomes of batik phase F students of Creative Batik and Textile Craft at SMK Negeri 1 Jabon'. This study aims to determine how students' ability to draw ornamental varieties can influence their learning outcomes in batik art. By understanding this relationship, it is hoped that more effective learning strategies can be found to improve learners' skills and knowledge in batik art. In addition, the results of this study are expected to contribute to the development of educational curriculum, particularly in the teaching of batik in schools.

Research Method

The method used in this study is quantitative research. Quantitative research is a scientific method that fulfils the scientific principles of concrete/empirical, objective, measurable, rational and systematic (Sugiyono, 2018: 16). The type of research used is ex-post facto research because this research focuses on events or phenomena that have already occurred. The researcher cannot control or manipulate the independent variables. Ex-post facto is a study conducted on an event that has already occurred. The results have factors in determining the cause and effect of the event (Sugiyono 2018: 50). For the sake of efficiency and time constraints, the sampling technique used in this study is the cluster sampling technique because one class can be considered as a cluster. The sample in this study were students in Phase F of Creative Batik and Textile Craft 2 of SMK Negeri 1 Jabon, a total of 33 children who received decorative elements in Phase E and batik elements in Phase F. The data collection procedure used in this study is documentation and performance tests. Microsoft Excel supported the statistical method test to find the results of the validation analysis, normality test, linearity test, heteroscedasticity test, and simple linear regression test.

Result and Discussion

The results of data analysis of the practice on the ability to draw ornamental varieties in 33 students showed that there were 33% or 11 students who were not complete because they obtained scores below KKTP, and there were 67% or 22 students who were complete because they obtained scores above KKTP, with a maximum score obtained by students of 92 and a minimum score obtained by students of 65.

The results of data analysis of the practice of batik making on 33 students show that there are 18.18% or as many as 6 students who are not complete by getting scores below the KKTP, and there are 81.81% or as many as 27 students who are complete by getting scores above the KKTP, with the maximum score obtained by students being 98 and the minimum score obtained by students being 60. Based on data analysis of the value of batik-making practices, such as lack of creativity in choosing decorative varieties and motifs and isen-isen that will be included in batik designs, many students' batik designs have similar results. In addition, many students are still not proficient in scratching the wax with canting, so students have to repeat the pencantingan process several times. Students also have difficulties with the dyeing process. Inappropriate mixing of colours, untidy dyeing, and the colour coming out of the design are also caused by the wax breaking or not penetrating the back of the fabric.

The normality test is used to determine whether or not the data are normally distributed. In this study, the normality test was carried out using the Liliefors technique with the L-table value of 0.1518 because the data amounted to 33 with a significance value of 0.05 and was carried out using Microsoft Excel. The results of this test are as follows:

Table 1. 1 Liliefors Table

n/a	**0,01**	**0,05**	**0,10**	**0,15**	**0,20**
32	0.1798	0.1542	0.1415	o. 1336	0.1274
33	0.1770	0.1518	0.1392	0.1314	0.1254
34	0.1747	0. 1497	0.1373	0.1295	0.1236

Table 1. 2 Normality Test Result

Rata-rata	82,06060606
Simpangan baku/ standar defiasi	8,298868123
Liliefors hitung	0,103147184
Liliefors Table	0.1518

The basis for decision-making is that if the value of L count < L table, then H0 is accepted and H1 is rejected, and if the value of L count > from L table, then H0 is rejected and H1 is accepted. Based on the results of the above values, the calculated L value is 0.103147184, and the L table is 0.1518 with a significance level of 0.05. So it can be concluded that L count < L table so that H0 is accepted and H1 is rejected, so it is stated that the data population is normally distributed.

The linearity test determines whether the regression line between the independent variable X and the dependent variable Y forms a linear line. The linearity test in this study uses Microsoft Excel. The following data from the linearity test results are tabulated as follows:

Table 1. 3 Linearity Test Result

ANOVA

				F	*Significance F*
Regression	1	2024,788	2024,788	350,4832	1,88E-18
Residual	31	179,0911	5,777131		
Total	32	2203,879			
TC	26	69,09108	2,657349	0,120789	4,515116
G	5	110	22	F hitung	F Table

Based on the results of the above data, it is known that the calculated F value is 0.120789 and the F table value is 4.515116; it is concluded that F count < F table, so H0 is accepted. Therefore, the regression equation of Y on X is a linear line.

The Glesjer test is used in this study to identify the symptoms of heteroscedasticity of the data by regressing the independent variables with the absolute value of the residuals in the regression analysis. The results of the heteroscedasticity test using Glesjer's test yielded the following data tabulation:

Table 1. 4 Heteroscedasticity Test Result

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-0,16359	2,667039	-0,06134	0,951485
X Variable 1	0,023956	0,033412	0,717004	0,478739

Based on the hypothesis that if the *p-value* > α, then H0 is accepted, the data do not experience symptoms of heteroscedasticity. The results of the data can be seen as the value *p-value* or the level of significance of the variable X is 0.478739, which means greater than the significance of 0.05, which means that the data does not experience heteroscedasticity.

Tabel 1. 5 Regression Result

Regression Statistics	
Multiple R	0,958508
R Square	0,918738
Adjusted R Square	0,916117
Standard Error	2,403566
Observations	33

Table 1. 6 Regression Significance Regresi Y of X Result

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	2024,7877	2024,788	350,4832	1,88E-18
Residual	31	179,09108	5,777131		
Total	32	2203,8788			

Table 1. 7 Significance Test of Regression Coefficient (Uji-t)

X Variable 1	*Coefficients*	*Standard Error*	*t Stat*	*P-value*
Intercept	6,84305	4,0395024	**1,694033**	**0,100285**
X Variable 1	0,947397	0,0506056	**18,7212**	**1,88E-18**

Hypothesis testing using simple linear regression shows that the coefficient of 0.958508 is in the category of very strong correlation. The R-squared value or coefficient of determination is the variation caused by the independent variable. The formula for calculating the coefficient of determination r2 x 100% is 0.918738 x 100% = 0.918 or 91.8%, so it can be concluded that 91.8% of the variation in the variable batik learning outcomes (Y) is caused by the ability to draw decorative varieties (X). In comparison, other variables cause the rest or as

much as 8.2%. The significance test of the regression of Y on X shows the result of the F significance value of 1.88E-18, which is smaller than α 0.05. Therefore, it can be said that the variable ability to draw ornamental varieties (X) affects the variable batik learning outcomes (Y). In the t-test results, the p-value is 0.100285, which is greater than α 0.05, which means that it can be concluded that H0 is accepted so that the ability to draw ornamental varieties positively affects batik learning outcomes. It is said that the higher the value of the ability to draw decorative varieties, the higher the value of batik learning outcomes.

Based on the study's results, it is explained that the ability to draw decorative drawings affects students' batik learning outcomes. The results of this study are supported by previous research conducted by Miswar (2023), whose research shows a positive influence between the ability to draw motifs on students' batik learning outcomes. Another study was conducted by Norawaty Simangunsong (2023). The results of hypothesis testing and correlation tests in this study indicate a relationship between the ability to draw decorative varieties and the ability to make batik. The research conducted by Nur Hasanah Batubara, Mesra Mesra, and Daulat Saragi (2019) shows the results of the coefficient of determination (r^2) of 17% of the contribution of the ability to draw decorative varieties to batik learning outcomes.

Conclusion

The results of the analysis of the performance test of drawing decorative varieties of students of SMK Negeri 1 Jabon show that there are 33% or as many as 11 students who are not complete because they get a score below KKTP. There are 67% or as many as 22 students who are complete by getting a score above KKTP, with the maximum score obtained by students of 92 and the minimum score obtained by students of 65.

The results of the analysis of the practical value of making batik show that there are 18.18% or as many as 6 students who are not complete by getting a score below KKTP, and there are 81.81% or as many as 27 students who are complete by getting a score above KKTP, with the maximum score obtained by students is 98 and the minimum score obtained by students is 60.

After conducting data analysis using a simple linear regression test with the prerequisite test of analysis in the form of normality test, linearity test and heteroscedasticity test, it shows the results that the data population is normally distributed, the regression equation Y on X shows a linear relationship, and the data is homoscedastic. The hypothesis test using simple linear regression shows that the correlation coefficient of 0.958508 is in the category of very strong correlation. The result of R square coefficient of determination is 0.918 or 91.8%, and it can be concluded that 91.8% of the variation in the batik learning outcome variable (Y) is caused by the ability to draw decorative varieties (X), while other variables cause the remaining 8.2%.

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