

## The Influence of Achievement Motivation, Teaching and Learning Style Towards Textile Learning Outcomes

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### ABSTRACT

*This study aims at revealing the influence of: (1) teaching style towards textile learning outcomes, (2) learning styles towards textile learning outcomes, (3) the effect of from teaching style, learning style, and achievement motivation towards textile learning outcomes, (4) the significance of teaching style, learning style and, achievement motivation towards textile learning outcomes for individual or group. This research can be categorized as quantitative study with a correlational model. The data analysis used multiple regression analysis techniques. The results of the study showed that (1) there is a positive and significant influence of teaching style towards textile learning outcomes, (2) there is a positive and significant influence of learning styles towards textile learning outcomes, (3) there is a positive and significant influence from teaching style, learning style, and achievement motivation towards Textile learning outcomes, (4) the influence of teaching style, learning style and achievement motivation were 26.6% and the rest was coming from other factors.*

**Keywords:** *teaching style; learning style; textile learning; achievement motivation; learning outcomes, textile course*

### INTRODUCTION

The progress of education can be seen from the students' quality because they are the central point of the teaching and learning process. In this case, the learning outcomes can be used as the main indicator. In general, the factors that influence student learning outcomes are classified into internal and external factors. The internal factors consist of health, intelligence and talent, attention, interest and motivation, learning strategies, maturity and readiness. Meanwhile, the external factors include the student's self, family background, school environment, community, and learning atmosphere, (either physical or social) (Slamet,

2013). In line with this view, J. Strijbos and N. Engels (2015) mention that learning outcomes can be influenced by several factors, including the students their selves and also the environment. Both internal and external factors contribute to the learning outcomes. It is also supported by (Junianto, 2015) that learning outcomes can be influenced by several factors, including the students their selves and also the environment.

The success of the learning process in the school cannot be separated from the role of the teacher's teaching style where it will greatly influence the student learning outcomes. As stated by (Nursyaidah, 2015), teachers who have

variations in teaching styles can improve student learning achievements.

Another internal factor that influence learning outcomes is the students' learning style as the method to receive and process the information. Mohamad (2011) has found that the type of students learning style will influence learning styles how they can cater to their learning to improve their academic achievement. (Lenk, 2018) study finds that students were more likely motivated, satisfied, engaged in achieving learning outcomes, which were designed at higher levels of cognitive demand. It means the learning styles will influence the way they meet their learning needs to improve their academic performance to solve problems.

Based on the results of preliminary classroom observations in 3 state schools (State Vocational High School 3 Surakarta, State Vocational High School Surakarta, State Vocational High School 9 Surakarta) and a private school (5 Muhammadiyah Vocational High School), it indicated that the students had a different way of learning when the teacher delivered the materials. There are some students who listen while recording things that are considered important, some are just scribbling or drawing on their book or paper. Meanwhile, some students feel very disturbed in class. Other information shows that some students learn regularly, but a few students study only when they face the exam. Some students, even, sleep overnight if tomorrow will be a test. These events indicate the differences in the students' learning styles.

Another factor that contributes to learning outcomes is the students' achievement motivation. It is the process of stimulating and arousing someone's behavior, providing direction and maintaining strong behavior. In terms of learning, students will succeed if there is a willingness, desire, and encouragement to learn. Hutapea (2012) mentions the students who have high achievement motivation will be more active during learning activities, while low motivation students' are always hesitant in expressing opinions and even lack of additional knowledge that cause poor learning outcomes. Narwoto, (2013) in his study revealed that there is a positive and significant influence between the student achievement motivation on their learning outcomes.

Based on the daily tests at vocational schools in 3 states vocational schools and a private vocational school in Surakarta, it showed

that the material mastery of textile courses that have reached below the minimum completeness criteria or about 46%. During the textile theoretical learning, the students did not pay attention to the teacher's explanation, they seem to less enthusiastic, some of them looked sleepy and chatting. This condition can be caused by many factors, such as the monotonous teaching method. Therefore, it is crucial to clarify the teaching and learning style as well as the achievement motivation among students since the previous studies investigate those important elements separately. This study is trying to reveal the influence of: (1) teaching style towards textile learning outcomes, (2) learning styles towards textile learning outcomes, (3) teaching style, learning style and motivation achievement towards Textile learning outcomes, (4) the significance of teaching style, learning style and, achievement motivation towards textile learning outcomes for individual or group. By doing so, it can present a complete description to enhance the learning process.

## METHOD

This study can be categorized as quantitative research with a correlational approach. This research was conducted at the State and private vocational schools in Surakarta which have Fashion Design study programs. It consisted of in 3 state schools (State Vocational High School 3 Surakarta, State Vocational High School Surakarta, State Vocational High School 9 Surakarta) and 2 private schools (5 Muhammadiyah Vocational High School and Marganingsih Vocational High School Surakarta). The research was conducted in July - August 2018. The sampling technique used the proportional random sampling with a sample of 180 students since the population were not homogeneous proportionally in certain areas.

This study employed three independent variables, namely teaching Style, learning Style and achievement motivation, and one dependent variable was the students learning outcomes of textile course. The data collection techniques were questionnaires and documentation to measure teaching style, learning styles, achievement motivation. The scale of the attitude to be used in this study is the Likert Scale.

The validity test in this study was divided into two: content and construct validity. The content validity was done through expert

judgment. After the instrument was considered feasible to be used as the research instrument, it was conducted to limited test.

After obtaining the data through the empirical instrument test, the items were tested its using the Product Moment correlation technique with SPSS version of 18. It was found that 1 item for teaching style was invalid, 3 items for the learning style, and 2 items for the achievement motivation respectively. The invalid items were dropped from the research instrument. Meanwhile, the reliability test used the Cronbach's Alpha formula because the score on the items in the instrument was the multilevel score of 1 and 4.

After the overall reliability coefficient was obtained, it was interpreted by looking at

## RESULTS AND DISCUSSION

### Results

Based on the results of data analysis in Table 1, it can be inferred that the teaching style variable obtained the highest score of 90 and the lowest score of 55. The results of statistical

the magnitude of reliability with the criteria. According to Sugiyono (2010) if  $t_{count} > t_{table}$ , then, the instrument items were declared reliable. The analysis results with the assistance of SPSS version of 18 showed that the instruments of the three research variables were teaching style (Alpha coefficient = 0.934), learning style (alpha coefficient = 0.937), and achievement motivation (Alpha coefficient = 0.874).

The data analysis technique in this study used regression analysis. It was a data analysis technique for making decisions, whether the rise or fall of the dependent variable is due to the independent variable. Regression analysis in this study was a simple linear regression analysis and multiple linear regression analysis. calculations showed the mean was 73.79, the mode was 74.00, the range was 35, the standard deviation (SD) was 6.374 and the variants was 40.63 respectively. Ideally, the lowest score should be 23 and the highest score was 92, so that the ideal mean (Mi) was 57.5 and the standard deviation (SDi) was 11.5.

**Table 1.** Analysis results

		Teaching style	Learning style	Achievement motivation	Learning outcomes
N	Valid	180	180	180	180
	Missing	0	0	0	0
Mean		73.79	96.86	64.37	70.49
Median		74.00	96.00	64.00	72.00
Mode		75	90	63	72
Std. Deviation		6.374	8.045	5.528	9.050
Variance		40.633	64.724	30.559	81.905
Range		35	42	25	44
Minimum		55	75	51	48
Maximum		90	117	76	92
Sum		13283	17435	11587	12688

Meanwhile, the frequency distribution of the teaching style data variable can be seen in Table 2 below.

By comparing the results of Table 1 and 2, it indicated that there is an influence from the teacher's teaching style towards the learning outcomes of textile course. It can be seen from the frequency distribution and the mean that can be categorized in the high category.

**Table 2.** Frequency distribution data on teaching

		style		
Interval	Category	Frequency	(%)	
X $\geq$ 74.75	Very high	87	48.33%	
40.25 $\leq$ X < 74.75	High	91	50.56%	
40.25 $\leq$ X < 40.25	Low	2	1.11	
X < 40.25	Very low	0	0	

Based on the data analysis results, the learning style variable obtained the highest score

of 117 and the lowest score of 75. From the results of statistical calculations, the mean was 98.86, the mode was 96.00, the range was 42, the standard deviation was 8,045 and the variants was 64.73. Ideally, the lowest score was 31 and the highest score was 124, so that the ideal mean (Mi) should be 77.5 and the standard deviation (SDi) was 15.5. The frequency distribution of the teaching style data variable can be seen in Table 3.

**Table 3.** Frequency distribution Data on learning style

Interval	Category	Frequency	(%)
$X \geq 101$	Very high	55	30.6%
$78 \leq X$	High	124	68.9%
$54 \leq X$	Low	1	0.6%
$<54$	Very low	0	0

From Table 3 above, it indicated that there is an influence from the teacher's teaching style towards the learning outcomes of textile course. It can be seen from the frequency distribution and the mean that can be categorized in the high category.

Based on the results of data analysis the learning style variable obtained the highest score of 76 and the lowest score of 51. The results of statistical calculations obtained the mean of 64.37, the mode of 64.00, the range of 25, and the standard deviation of 5.528 and the variants of 30.56. Ideally, the lowest score was 20 and the highest score was 80, so that the ideal mean (Mi) should be 50 and the standard deviation (SDi) was 10. The frequency distribution of the teaching style data variable can be seen in Table 4.

**Table 4.** Frequency distribution data on achievement motivation

Interval	Category	Frequency	(%)
$X \geq 65$	Very high	79	43.9%
$50 \leq X$	High	101	56.1%
$35 \leq X$	Low	0	0%
$<35$	Very low	0	0

It indicated that there is an influence from the achievement motivation towards the learning outcomes of textile course. It can be seen from the frequency distribution and the mean that can be categorized in the high category.

The normality test can be done by determining

the condition of each research variable, whether the data was normally distributed or not. The normality test used Kolmogorov-semirnov test and the conclusion was taken with the significance level of 0.05. Data can be said normal if the probability (sig) > 0.05 and on contrary.

The teaching style variable had the score of 0.573; the learning styles was 0.261; the achievement motivation was 0.424 and the learning outcomes were 0.010. It can be concluded that the variables of the teaching style, the learning style, the achievement motivation and the learning outcomes showed the sig value > alpha coefficient (0.05), so that it was normally distributed.

Moreover, the linearity test was to find out whether the influence of each independent variable as a predictor had a linear relationship to the dependent variable. The test criteria when viewed from the probability value Sig > 0.05, it means that there is a linear relationship between the independent variable and the dependent variable and if the value probability of Sig < 0.05, indicates that there is no linear relationship.

The results of the linearity test using the SPSS program indicated that the relationship between teaching style (X1), learning style (X2) and achievement motivation (X3) towards learning outcomes (Y) has a linear relationship. Meanwhile, the multicollinearity test was to test whether the regression model found any correlation between independent variables. To find out multicollinearity among independent variables in a regression model was by testing the value of VIF (Variance Inflation Factor) or Tol (tolerance) value. The testing criteria is that if the VIF value is less than 10, then, there is no multicollinearity in the data. In this case, the teaching style variable had a VIF value of 1,250, the learning style variable was 1,328 and the achievement motivation variable was 1,101. Based on the provisions of VIF < 10, it can be concluded that there is no multicollinearity between the three independent variables.

## Discussion

The results of the study showed that there was a significant influence between teaching styles towards the learning outcomes of Textile subjects among the vocational high schools in Surakarta. It is indicated by the calculated F value of 31,862 with a significance level of

0,000. Because the significance value was smaller 0.05 ( $0,000 < 0,05$ ). Thus, this study succeeded in proving the third hypothesis which states that "There is an influence from student learning styles towards the students learning outcomes of textile course in vocational high schools of Surakarta". The student learning style variables affect the students' learning outcomes in a textile course with 7.58%. The finding is in accordance with the theory from Clark (2012) that the teaching style is very closely related to the students' learning style. Muh. Hadiatur Rahman (2016) also emphasized that the teaching style had an influence on the students' learning achievement, so the teachers' teaching style should be prioritized to enhance the learning. Moreover, R. (R.Singh., 2016) emphasize that students and teachers are required to create a friendly learning environment for all.

The results of the descriptive analysis of teaching style showed that the influence of teacher teaching styles in textile course can be classified as high with 50.56%. It shows that the teacher's teaching style affects student learning outcomes. Thus, the teacher must use a teaching style that can encourage students to be enthusiastic in learning so that their learning outcomes are satisfying.

The results of the study showed that there was a significant influence from teaching styles towards the learning outcomes of textile course in vocational high schools of Surakarta. It can be seen from the value of  $F_{count}$  was 30,837 with the significance level of 0,000. Because the significance value was smaller 0.05 ( $0,000 < 0,05$ ). Thus, this study succeeded in proving the second hypothesis which states that "There is an influence from the teaching style towards the learning outcomes of textile course in vocational high schools in Surakarta". It means the teachers' teaching styles affect the students learning outcomes with 7.86%. In line with this, Shaari, et.al (2014) in their study also find that there is a significant but moderate relationship between lecturers' teaching style with the students' academic engagement. In addition, this study is in accordance with the theory proposed by (Dunn, R. & Griggs, 2000) which says that learning styles are a way for students to concentrate on the learning process and strengthen the information they receive. By concentrating on learning, it will make it easier for students to receive the learning, and the learning outcomes will also be good. The results

of this study are in accordance with the theory proposed by Dunn, R. & Griggs (2000) that learning styles are a method for students to concentrate on the learning process and strengthen the information they receive. By concentrating on learning, it will be easier for students to receive the learning, and the learning outcomes will also be higher. The results of this study are also in line with the research conducted by Sujarwo that found there was an influence of learning styles on learning outcomes. It shows that the better the student's learning style, the higher the learning outcomes will be achieved. The research from Rajshree Vaishnav (2013) also confirms that there is a positive correlation between learning styles towards the academic achievement. Vizeshfar (2018) also reveals that education based on learning styles, particularly for college students, can not only enhance students' academic achievement and teachers' professional satisfaction, but can help with professional training

The results of the descriptive analysis of learning styles showed that the influence of the student learning styles on learning outcomes of textile subjects can be classified as high, i.e. 68.9%. It means that the better quality of student learning will make the learning outcomes of textile subjects higher. If the quality of the student learning styles is good, the students can easily understand the material that will increase the students' learning outcomes.

The results of the study showed that there is a significant influence between teaching styles towards the students learning outcomes in textile subjects among the vocational high schools in Surakarta. It can be seen from the  $F_{count}$  of 22,862 with the significance level of 0,000. Because the significance value was below 0.05 ( $0,000 < 0,05$ ). Thus, this study succeeded in proving the second hypothesis which states that "There is an influence from achievement motivation towards the students learning outcomes of Textile course among the vocational high schools in Surakarta". The achievement motivation affects the students' learning outcomes in with 7.15%.

The results of this study are consistent with Winston study (2018) that intrinsic motivation may be positively associated with encouraging students to attend active learning workshops and use various active learning strategies in the classroom

Another finding showed that the influence of the achievement motivation towards the students learning outcomes of Textile course can be classified as high with 56.1%. Meanwhile, the result of Multiple Regression analysis indicated that the determinant coefficient (R<sup>2</sup>) was 0.266. So the significance of teaching style, learning style and achievement motivation simultaneously on learning outcomes was 26.6% and the rest of 73.4% were influenced by other variables which were not examined in this study, such as intelligence, cognitive abilities, curriculum and many more. Since, the many theories suggest that learning outcomes influenced by many factors, both internal and external factors.

The calculation of the effective and the relative contribution of each independent variable showed that the teaching style contributes effectively with 7.58%, the learning style with 7.86%, and the achievement motivation with 7.15%. Meanwhile, the contribution of the relative teaching style was 34.79%, learning style was 33.30, and achievement motivation was 31.91%. It means that the variable with the biggest contribution to the students' learning outcomes of Textile course was the learning style. The results are similar to the theory according to Sugihartono, Fathiyah, K.N., Harahap, F., Setiawati, F.A., & Nurhayati, (2007) that there are factors that influence learning outcomes which are classified into two groups, namely internal and external factors. Motivation and learning styles include internal factors and teacher teaching styles as external factors that can affect student learning outcomes. Students who have high achievement motivation will be passionate about their learning that also improve their outcomes. It is also consistent with the findings from Dewi Sulistiyarini and Sukardi (2016) that motivation has the highest contribution or influence on the learning.

## CONCLUSION AND SUGGESTIONS

Based on the research results, it can be concluded as follows: The variables can be categorized as high in influencing the students' learning outcomes of textile subjects, i.e. The teaching style with 50.56%, the students' learning styles with 68.9%, and the achievement motivation with 56.1%. Moreover, the teachers' teaching styles, the student learning styles and the achievement motivation simultaneously

influence the students' learning outcomes among the tenth grade textile subjects of vocational high schools in Surakarta. It means when teachers perform the teaching well and the learning styles are suitable with higher achievement motivation of students, it will improve students' learning outcomes.

The significance of the influence of each variable of the learning outcomes in Textile course respectively was 7.58% for the teaching style, 7.86% for the learning style and 7.15% for the achievement motivation. Stimulatively, the teaching style, the learning style and the achievement motivation variables contributed to 26.6% and the rest of 73.4% were influenced by other variables which was not discussed in this study.

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