



## THE INFLUENCE OF TEACHER CREATIVITY, SOCIAL INTERACTION, AND LEARNING INDEPENDENCE ON THE LEARNING MOTIVATION

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### Abstract

This research is motivated by the importance of teacher creativity, a conducive social environment, and learning independence as the main factors in shaping student learning motivation. The purpose of the study was to analyze the influence of teacher creativity, social interaction, and learning independence on the learning motivation of grade XI students in social studies at SMAN 2 Pamekasan. The study used a quantitative approach with an associative method. The sample consisted of 65 students selected using a total sampling technique. Data were obtained through a questionnaire that had been tested for validity and reliability, then analyzed using multiple linear regression with the help of SPSS version 22. The results showed that simultaneously the three variables had a significant effect on learning motivation with a contribution of 81.2%. Partially, learning independence provided the most dominant influence of 57.4%, while teacher creativity contributed 24.8% and social interaction 15.6%. These findings emphasize the importance of learning independence, teacher creativity, and social interaction in improving student learning motivation.

**Keywords:** Teacher Creativity, Social Interaction, Learning Independence, Learning Motivation, Social Studies.

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## INTRODUCTION

## مقدمة

Learning motivation is a crucial factor determining student success. Without motivation, students tend to be passive, unenthusiastic, and lacking the drive to achieve. Motivation influences the intensity of learning effort, persistence in the face of difficulties, and self-regulation skills. Students with high motivation are typically active, creative, and responsible in completing assignments. Conversely, low motivation leads to declining achievement, increased absenteeism, and reduced class participation. The challenge in education today is maintaining student engagement and enthusiasm for learning. Factors such as monotonous teaching methods, irrelevant materials, and the influence of digital media often diminish learning interest. If left unaddressed, this has the potential to increase the risk of dropping out of school (Rahman, 2022).

Motivation serves as a driving force that makes students more active and consistent in learning. Intrinsic motivation, such as curiosity, and extrinsic motivation, such as teacher support, significantly influence learning behavior. Motivated students will set learning goals, develop strategies, and evaluate results independently (Nengseh et al., 2024). Learning motivation also serves as an indicator of student engagement in facing academic challenges. Students with high

motivation demonstrate persistence, interest, and independence in learning. They tend to get bored quickly with routine tasks but enjoy solving challenging problems (Emda in Lutfiwati, 2020). This shows that motivation is not only a matter of learning motivation but also influences student creativity.

Learning motivation is influenced by internal factors such as physical condition, attitude, interests, and emotions, as well as external factors such as family and the school environment (Djarwo, 2020). The synergy of these two factors will foster optimal learning motivation. Teachers play a strategic role in fostering student motivation through creative and varied approaches. Teachers not only act as conveyors of material but also as facilitators who create a pleasant learning atmosphere. Through empathetic communication, the use of engaging media, and positive rewards, teachers can increase students' self-confidence (Nurzannah, 2022). Teacher creativity includes the use of innovative methods, varied media, and assessments that stimulate enthusiasm for learning. In this way, the learning process becomes more meaningful and participatory.

In addition to teacher creativity, social interactions in the classroom play a crucial role in student learning motivation. Reciprocal relationships between students and with teachers can influence their learning behavior (Qomaruddin & Suyati, 2023). Positive social interactions foster a sense of togetherness, empathy, and cooperation. Students learn to share ideas, discuss, and solve problems together. This improves students' social skills and sense of responsibility for the learning process. Positive interaction experiences also encourage greater learning independence (Rediah et al., 2025). Independent students are better able to manage their time and choose appropriate learning strategies. Ultimately, independence makes students feel in control of the learning process and more persistent in achieving their goals.

Observations at SMAN 2 Pamekasan indicate low student learning motivation. Teachers continue to use monotonous methods and limited learning media, resulting in a less interactive classroom environment. Social interaction between students and teachers is minimal, resulting in communication that does not support motivation. Students tend to be passive, reluctant to express opinions, and lack responsibility when working in groups. Learning independence is also weak, evident in the habit of relying on teachers and friends for help. Time management and discipline are still lacking, resulting in many assignments being completed late. This condition hinders the development of students' intrinsic motivation to learn. Based on these findings, this study was conducted to analyze the influence of teacher creativity, social interaction, and learning independence on the learning motivation of 11th-grade students in social studies at SMAN 2 Pamekasan.

## METHOD

## منهج

This study used a quantitative approach with a causal associative approach to analyze the causal relationship between teacher creativity, social interaction, and learning independence on student motivation. According to Sugiyono (2017), causal associative research aims to determine the relationship between two or more variables, where the independent variable influences the dependent variable. This research design was also *ex post facto*, so the researcher did not administer direct treatment but instead measured the phenomenon as it existed. Data were collected through Likert-scale questionnaires, interviews, and observations to obtain a comprehensive picture of the research variables. The analysis technique used was multiple linear

regression, supplemented by classical assumption tests and hypothesis tests (t-tests and F-tests) to ensure the validity of the results.

The study population was 65 students in grades XI-C1 and XI-C2 of SMAN 2 Pamekasan. All were sampled using total sampling. This technique was chosen because the population size was less than 100, allowing all students to be included to increase data accuracy and representativeness (Roflin & Liberty, 2021). Primary data was obtained from student questionnaires, while secondary data was gathered from school documents, literature, and related educational policies. The research process included problem formulation, instrument development, validity and reliability testing, data collection, statistical analysis, and conclusion drawing. The research findings are expected to contribute to improving learning strategies that optimally motivate students.

## RESULT | نتائج

### Data Description

The research data description is presented to provide an overview of the distribution of data in the field. This data was collected through a questionnaire distributed to 11th-C grade (Social Studies) students at SMAN 2 Pamekasan in Pamekasan Regency, with a sample size of 65 students.

**Table 1.** Statistical Description of Learning Motivation, Teacher Creativity, Social Interaction, and Learning Independence Variables

		Statistics			
		Teacher Creativity	Social Interaction	Learning Independence	Learning Motivation
N	Valid	65	65	65	65
	Missing	0	0	0	0
Mean		50,25	98,02	74,83	77,97
Std. Error of Mean		1,017	2,289	1,417	1,417
Median		50,00	100,00	76,00	79,00
Mode		60	96 <sup>a</sup>	90	90
Std. Deviation		8,203	18,453	11,426	11,421
Variance		67,282	340,515	130,549	130,437
Range		30	96	38	54
Minimum		30	24	52	36
Maximum		60	120	90	90
Sum		3266	6371	4864	5068

a. Multiple modes exist. The smallest value is shown

Source: Data Processed by Researchers (2025)

Based on descriptive statistical analysis of 65 respondents, it was found that teacher creativity had an average of 50.25 with a standard deviation of 8.203, indicating a moderate category with moderate data variation. Student social interaction showed an average of 98.02 with a fairly wide data spread, but the majority of students had a positive perception of social interaction in the classroom. Learning independence obtained an average of 74.83 with quite wide score variation, but overall, students demonstrated good learning independence. Student learning motivation was also high, with an average of 77.97, and there was no missing data, allowing for a comprehensive analysis.

## Learning Motivation (Y)

**Table 2.** Frequency Distribution of Learning Motivation Variable

		Learning Motivation			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	36 – 43	1	1,5	1,5	1,5
	44 – 51	1	1,5	1,5	3,0
	52 – 59	2	3,1	3,1	6,1
	60 – 67	6	9,2	9,2	15,3
	68 – 75	13	20,0	20,0	35,3
	76 – 83	16	24,7	24,7	60,0
	84 – 90	26	40,0	40,0	100,0
	Total	65	100,0	100,0	

Source: Data Processed by Researchers (2025)

The frequency column above shows that 42 respondents (64.62%) perceived their learning motivation as high, 16 respondents (24.61%) perceived their learning motivation as moderate, 6 respondents (9.23%) perceived their learning motivation as poor, and 1 respondent (1.54%) perceived their learning motivation as low. Therefore, the data for variable Y is predominantly in the high category, with 42 respondents (64.62%).

## Teacher Creativity (X1)

**Table 3.** Frequency Distribution of Teacher Creativity Variable

		Teacher Creativity			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	30 – 33	2	3,1	3,1	3,1
	34 – 37	2	3,1	3,1	6,2
	38 – 41	7	10,8	10,8	17,0
	42 – 45	6	9,2	9,2	26,2
	46 – 49	15	23,1	23,1	49,3
	50 – 53	9	13,8	13,8	63,1
	54 – 57	4	6,2	6,2	69,3
	58 – 60	20	30,8	30,8	100,0
	Total	65	100,0	100,0	

Source: Data Processed by Researchers (2025)

The frequency column above shows that 30 respondents (46.2%) perceived teacher creativity as high, 20 respondents (30.8%) perceived teacher creativity as moderate, 11 respondents (16.8%) perceived teacher creativity as poor, and 4 respondents (6.2%) perceived teacher creativity as low. Therefore, the data for variable X1 is predominantly in the high category, with 30 respondents (46.2%).

## Social Interaction (X2)

**Table 4.** Frequency Distribution of Social Interaction Variables

		Social Interaction			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	24 – 37	1	1,5	1,5	1,5
	38 – 51	0	0	0	1,5
	52 – 65	3	4,6	4,6	6,1

66 – 79	5	7,7	7,7	13,8
80 – 93	10	15,4	15,4	29,2
94 – 107	28	43,1	43,1	72,3
108 – 120	18	27,7	27,7	100,0
Total	65	100,0	100,0	

Source: Data Processed by Researchers (2025)

In column The frequency above shows that 44 respondents (67.7%) have a perception of social interaction in the high category, 15 respondents (23.1%) have a perception of social interaction in the sufficient category, 5 respondents (7.7%) have a perception of social interaction in the less category, and 1 respondent (1.5%) has a perception of social interaction in the low category. Thus, the data for variable X2 is predominantly included in the high category, namely 44 respondents (67.7%).

### Learning Independence (X3)

**Table 5.** Frequency Distribution of Learning Independence Variable

Learning Independence					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	52 – 56	7	10,8	10,8	10,8
	57 – 61	2	3,1	3,1	13,8
	62 – 66	6	9,2	9,2	23,0
	67 – 71	7	10,8	10,8	33,8
	72 – 76	13	20,0	20,0	53,8
	77 – 81	12	18,5	18,5	72,3
	82 – 86	3	4,6	4,6	76,9
	87 – 90	15	23,1	23,1	100,0
	Total	65	100,0	100,0	

Source: Data Processed by Researchers (2025)

The frequency column above shows that 24 respondents (36.9%) perceived learning independence as high, 20 respondents (30.8%) perceived learning independence as moderate, 10 respondents (15.4%) perceived learning independence as low, and 11 respondents (16.9%) perceived learning independence as low. Therefore, the data for variable X3 is predominantly in the high category, with 24 respondents (36.9%).

### Results of the Analysis Requirements Test

Based on the results of the One-Sample Kolmogorov-Smirnov test, it was found that all research variables, namely Learning Motivation, Teacher Creativity, Social Interaction, and Learning Independence, had a significance value of Asymp. Sig. (2-tailed) of 0.200. This value is greater than the 0.05 significance level, so it can be concluded that all four variables are normally distributed. Thus, the data meets the assumption of normality required in parametric statistical analysis, such as linear regression. Furthermore, the mean and standard deviation of each variable indicate a relatively reasonable and non-extreme data distribution. These results strengthen the validity of the data as a basis for further hypothesis testing.

**Table 6.** Multicollinearity

Coefficients <sup>a</sup>			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Teacher Creativity	,935	1,069
	Social Interaction	,897	1,115
	Learning Independence	,957	1,045

a. Dependent Variable: Learning Motivation

Source: Data Processed by Researchers (2025)

The results of the multicollinearity test indicate that the teacher creativity variable has a tolerance value of 0.935 and a VIF of 1.102, indicating no multicollinearity. The social interaction and learning independence variables also met the tolerance criteria (>0.10) and VIF (<10), indicating that they were free from multicollinearity. Thus, all independent variables met the criteria, and the regression model was suitable for further analysis.

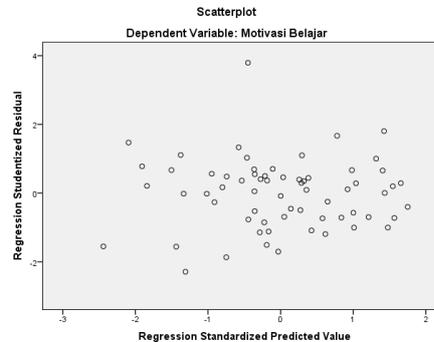


Figure 1. Heteroscedasticity Test Results

The scatterplot shows the distribution of standardized residuals against standardized predicted values from the regression model with motivation as the dependent variable. In this scatterplot, the residual points are randomly distributed around the zero line without any clear pattern. This condition indicates that the homoscedasticity assumption is met, namely that the residual variance is constant across the entire range of predicted values.

### Hypothesis Test Results

Table 7. Results of the F-Test or Simultaneous (Multiple Regression)

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	26,022	3,301		7,882	,000
	Teacher Creativity	,307	,040	,437	7,596	,000
	Social Interaction	,050	,022	,136	2,325	,023
	Learning Independence	,422	,034	,713	12,550	,000

a. Dependent Variable: Learning Motivation

Source: Data Processed by Researchers (2025)

Based on the results of multiple linear regression analysis, the equation  $\hat{Y} = 26.022 + 0.307X_1 + 0.050X_2 + 0.422X_3$  is obtained, which indicates that if all independent variables are zero, student learning motivation is at a baseline value of 26.022. Each one-unit increase in teacher creativity increases learning motivation by 0.307 points, social interaction by 0.050 points, and learning independence by 0.422 points. The partial test results indicate that all three variables have a positive and significant effect on student learning motivation, with learning independence having the greatest impact. This finding indicates that increasing learning independence, teacher creativity, and social interaction can simultaneously improve student learning motivation.

Table 8. Simultaneous Determination Coefficient Test

Model Summary <sup>a</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,901 <sup>a</sup>	,812	,802	3,009

a. Predictors: (Constant), Learning Independence, Teacher Creativity, Social Interaction

b. Dependent Variable: Learning Motivation

Source: Data Processed by Researchers (2025)

Based on the results of the multiple linear regression analysis, the multiple correlation coefficient (R) value was 0.901, indicating a very strong relationship between teacher creativity, social interaction, and learning independence with student learning motivation. The coefficient of determination ( $R^2$ ) value of 0.812 indicates that 81.2% of the variation in learning motivation can be explained by these three variables, while the remaining 18.8% is influenced by other factors outside the model. The Adjusted  $R^2$  value of 0.802 confirms that the model has good stability and can be generalized to a wider population. Furthermore, the Standard Error of the Estimate a value of 3.009 indicates a low level of prediction error, thus the model is considered effective in predicting student learning motivation.

Table 9. Results of the Partial T-Test

Variabel Independen	Koefisien Regresi (B)	Nilai t hitung	Sig. (p-value)
Teacher Creativity	0,350	4,556	0,000 (<0,05)
Social Interaction	0,145	3,411	0,001 (<0,05)
Learning Independence	0,449	9,212	0,000 (<0,05)

Source: Data Processed by Researchers (2025)

The results of the partial test (t-test) indicate that the three independent variables teacher creativity, social interaction, and learning independence have a positive and significant influence on the learning motivation of 11th-grade social studies students at SMAN 2 Pamekasan. Teacher creativity has a regression coefficient of 0.350 with a significance value of 0.000 and a contribution of 24.8%, indicating a moderate positive influence on learning motivation. Social interaction shows a regression coefficient of 0.145 with a significance value of 0.001 and a contribution of 15.6%, although the effect is relatively small and the relationship is classified as weak. Meanwhile, learning independence provides the largest contribution with a regression coefficient of 0.449, a significance value of 0.000, and an  $R^2$  of 0.574, indicating a strong relationship and a dominant role in influencing student learning motivation.

## DISCUSSION

## مناقشة

### The Influence of Teacher Creativity, Social Interaction, and Learning Independence on Learning Motivation

Learning motivation is a crucial foundation that encourages students to achieve academic success and develop their full potential. Research shows that teacher creativity, social interaction, and learning independence significantly contribute to student learning motivation. Creative teachers are able to present innovative learning methods, varied media, and engaging activities that increase student engagement. Furthermore, positive social interactions between teachers, peers, and the school environment encourage active participation and foster a sense of community. Learning independence helps students strategize, monitor their progress, and take responsibility for their learning outcomes. These three factors work together to create a productive and meaningful learning ecosystem.

Teacher creativity has been shown to stimulate critical thinking through the use of educational games, collaborative projects, and exploratory questions that challenge students to think more deeply (Basiran & Ningsih, 2023). Social interaction plays a role in creating a supportive environment, so students feel valued and motivated (Rafiuddin et al., 2022). Meanwhile, independent learning provides students with autonomy and a sense of ownership over the learning process, which fuels an intrinsic drive to continue developing (Wulandari et al., 2021). Thus, these three variables complement each other to strengthen students' learning

motivation. Harmonious synergy between teachers, students, and the learning environment has the potential to create a more enjoyable and meaningful learning experience. This is crucial for developing students who are active, independent, and ready to face future academic challenges.

### **The Influence of Teacher Creativity on Learning Motivation**

The analysis shows that teacher creativity has a positive and significant influence on student learning motivation, contributing 24.8%. Teachers who use innovative approaches such as digital media, educational games, and contextual methods have been shown to increase student engagement. However, this contribution is moderate and therefore not the sole determinant of learning motivation. Internal student factors such as interest, academic goals, and self-efficacy also play a significant role in shaping learning enthusiasm. Students with intrinsic motivation tend to achieve even when teaching methods are less creative. Conversely, students who lack internal drive struggle to be motivated even when teachers make creative efforts.

Research by Hasanah et al. (2023) emphasized that student self-efficacy has a greater influence on learning motivation than teacher creativity. This finding is supported by Imbron et al. (2021) and Agustina & Yuda (2021), who found that teacher creativity only explains a small portion of the variation in learning motivation, while other factors remain dominant. The social environment, such as parental support, peer support, and classroom atmosphere, also plays a crucial role in maintaining students' enthusiasm for learning (Kusumawati et al., 2023). The findings of Billa & Marna (2023) emphasize that parental involvement and a positive environment directly contribute to learning outcomes through motivation. Therefore, increasing teacher creativity needs to be balanced with adequate psychosocial support. This holistic approach will help create a balance between the pedagogical, psychological, and social aspects of students.

### **The Influence of Social Interaction on Learning Motivation**

Social interaction contributes 15.6% to student learning motivation, reflecting the importance of positive relationships between teachers, peers, and the school environment. Group discussions, teamwork, and emotional support have been shown to foster a sense of community and enhance learning enthusiasm. Research by Fathoni & Yusuf (2024) found a significant relationship between social interaction and learning motivation, although the percentage was relatively small. Iswardhany & Rahayu (2020) also showed that open communication and teacher empathy strengthen student engagement in learning. This means that the quality of interaction is more important than the quantity. Schools need to facilitate healthy and productive interaction patterns to maximize benefits.

However, shallow or negative social interactions can actually decrease learning motivation. Fini (2024) noted that excessive joking or disruptive interactions actually reduce students' focus on learning. Therefore, it is important to ensure that interactions support learning and not undermine it. Ikadarny et al. (2024) emphasized that the quality of social interactions has a more significant influence on motivation than the presence of interactions themselves. An inclusive learning environment, free from social pressure, and fostering a sense of security are essential prerequisites. This will make students feel valued, Have a sense of belonging and be motivated to actively participate. Meaningful social interactions can be a catalyst for the growth of students' intrinsic motivation.

### **The Effect of Learning Independence on Learning Motivation**

Learning independence contributes the largest amount to student learning motivation, at 57.4%, meaning that more than half of the variation in motivation can be explained by this

variable. Independent students are able to set goals, plan strategies, and consistently monitor learning progress. This increases their sense of responsibility, self-efficacy, and belief in their ability to achieve academic goals. Zhao et al. (2024) showed that self-management and self-efficacy mediate the relationship between learning independence and academic achievement. Wu et al. (2022) also emphasized the importance of a growth mindset in strengthening this relationship. Thus, learning independence is a determining factor in students' intrinsic motivation.

However, 42.6% of the variation in motivation is still influenced by other factors such as discipline, family support, and the quality of teacher-student interactions. Ismanto (2018) stated that motivation and discipline contribute together to increasing students' learning independence. Juliawan & Widodo (2023) found that discipline and independence contributed 66.2% to learning motivation, indicating that cultivating discipline is crucial. Wahyuni et al. (2023) highlighted that learning styles and parental involvement also support the development of independence. Therefore, project-based learning strategies and formative assessment are necessary to foster learning autonomy. Schools need to create an environment that encourages students to become active and responsible learners.

## CONCLUSION

## خاتمة

Based on the results of research on the influence of teacher creativity, social interaction, and learning independence on the learning motivation of 11th grade students in social studies at SMAN 2 Pamekasan, it can be concluded that these three variables have a significant influence on learning motivation. Creative teachers are able to create interesting and innovative learning, thereby increasing student learning motivation. Positive social interactions between students, teachers, and peers create a supportive and collaborative learning environment. Learning independence empowers students to actively regulate and direct their learning process. Teacher creativity has been shown to make an important contribution to increasing student motivation, although motivation is also influenced by internal factors such as interests, personal goals, and self-confidence, as well as external factors such as environmental support. Social interaction makes a significant but limited contribution, where positive interactions can increase students' sense of togetherness, security, and enthusiasm for learning. In addition, learning independence has the strongest influence because students who are able to regulate and evaluate their learning process tend to have higher motivation. Overall, these three variables form an effective synergy in encouraging student learning motivation.

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