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The Correlation Between Self-Motivation and Interaction as Predictors of Students' Satisfaction in Blended Learning in The Post-Covid-19

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ABSTRACT

This research study investigates the correlation between self-motivation, interaction, and satisfaction in the context of blended learning. The regression model, using self-motivation and interaction as predictors, significantly predicts satisfaction levels. The model explains approximately 74.5% of the variance in satisfaction, with self-motivation contributing 24.5% and interaction contributing 50%. The findings are based on a dataset of 57 participants, and Pearson's correlations indicate significant positive associations between self-motivation, interaction, and satisfaction. However, the study has limitations, including a small sample size and potential biases, which should be considered when interpreting the results.

ABSTRAK

Studi penelitian ini menyelidiki hubungan antara motivasi diri, interaksi, dan kepuasan dalam konteks pembelajaran berpadu. Model regresi, menggunakan motivasi diri dan interaksi sebagai prediktor, secara signifikan memprediksi tingkat kepuasan. Model ini menjelaskan sekitar 74,5% variasi dalam kepuasan, dengan kontribusi motivasi diri sebesar 24,5% dan kontribusi interaksi sebesar 50%. Temuan ini didasarkan pada dataset dengan 57 partisipan, dan korelasi Pearson menunjukkan hubungan positif yang signifikan antara motivasi diri, interaksi, dan kepuasan. Namun, studi ini memiliki keterbatasan, termasuk ukuran sampel yang kecil dan potensi bias, yang perlu dipertimbangkan saat menafsirkan hasil-hasilnya.

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INTRODUCTION

In recent years, the educational landscape has undergone a significant shift towards integrating technology into instructional methods, a transition further accelerated by the COVID-19 pandemic. This global shift prompted Indonesia's Ministry of Education and Culture to unveil plans for a comprehensive overhaul of traditional teaching methods, replacing them with an online system (Moorhouse, 2020). The way that the educational industry approaches its work has changed dramatically, with more and more technology being incorporated into instructional methods. The unprecedented impact of the COVID-19 epidemic, which forced educational institutions around the world to quickly adapt to remote learning environments, gave this paradigm change considerable velocity. Indonesia's Ministry of Education and Culture has responded to this worldwide trend by announcing bold plans to modernize traditional teaching methods, with a focus on establishing an online learning environment. This proactive action is a critical step in updating the education system, bringing it into line with the needs of the digital era, and promoting possibilities for students all around Indonesia to learn.

Though the move to online learning has advantages in terms of accessibility and creativity, there are drawbacks as well. With Indonesia's educational landscape abruptly shifting to digital platforms, infrastructure, technological accessibility, and the capacity to guarantee fair learning opportunities for all students—regardless of their socioeconomic backgrounds—need to be carefully considered. It becomes imperative to strike a balance between pedagogical efficacy and technological integration to make sure that online approaches successfully accomplish the desired learning goals while also engaging students. Furthermore, in order for teachers to keep up with these technological advances and maintain high standards of instruction, they must receive thorough training. Only then will they be able to navigate online platforms with ease. To optimize the potential advantages of this transition to an online educational system, Indonesia must address these issues as it sets out on this revolutionary journey.

As e-learning becomes more and more limited, new learning environments that emphasize the value of in-person interactions are starting to emerge. As a workable substitute, blended learning strategies—which integrate computer technology with conventional procedures—have gained popularity. By fusing face-to-face and dare components, this method seeks to give students an engaging educational experience (Rakhmanina et al., 2020). Combining the benefits of both methods allows students to benefit from the direct communication and understanding that comes from working with teachers and other students, as well as the use of cutting-edge technology to access resources, materials, and other learning aids. With blended learning, students can study on their own while still getting one-on-one help and supervision from the instructor. Through the integration of technology and traditional education, students can modify their learning pace, make use of innovative resources, and enhance their technological skills—a talent that is becoming more and more crucial in today's world. In order to suit students' educational demands in a constantly evolving environment, blended learning—

which combines traditional teaching methods with computer technology—offers a comprehensive and flexible approach.

Emphasizing the significance of student satisfaction in the learning process, this study recognizes it as a key indicator of academic achievement and instructional quality. Education extends beyond knowledge transfer, encompassing the development of skills, attitudes, capacities, and emotions. Consequently, understanding and enhancing student satisfaction with their educational experience are crucial objectives. This study introduces a research model that explores the predictive roles of self-motivation and interaction in integrated learning student satisfaction, contributing to the evolving knowledge base on effective instructional practices within the context of Indonesian education. As the exploration of blended learning and its impact on student satisfaction unfolds, it is vital to consider the changing educational landscape. Factors such as the challenges posed by the COVID-19 pandemic and the distinctive characteristics of the Indonesian educational system will be examined. Through this analysis, the study aims to uncover innovative approaches that leverage the advantages of both traditional and online learning, creating a dynamic and engaging educational environment.

METHOD

The researcher examined the relationship between self-motivation, interaction, and student satisfaction in blended learning in this quantitative study.

Participants

The study participants comprised students enrolled in a blended learning course at IAIN Palangka Raya, specifically 57 students from the 4th semester. The researcher adopted the questionnaire from Kuo (2014, p. 46). JASP will be used to perform the analysis. To determine the scores, five categories were used: strongly agreed, scored as 5; agree, scored as 4; neutral, scored as 3; disagree, scored as 2; and strongly disagree, scored as 1.

Data Collection

The researcher employed data collection techniques for obtaining study results, utilizing research subjects as information sources. The strategy involved sharing the questionnaire link through WhatsApp. The process included contacting students for survey participation, distributing the questionnaire via Google Forms, assessing scores using a Likert scale, and concluding with data analysis and interpretation by the researcher.

Data Analysis

A thorough data analysis was performed to produce meaningful results after data acquisition. The following procedures were carried out:

a. Normality Test

The normality test determined if the collected data adhered to a normal distribution. In JASP, the Kolmogorov-Smirnov test with a significance level of 0.05 was utilized. A significance value larger than 0.05 indicated a normal distribution for the data.

b. Linearity Test

The linearity test sought to determine whether or not the variables of interest had a linear relationship. Using a significance level of 0.05, the JASP program was used to evaluate linearity. If the significance level was less than 0.05, the relationship between the variables was linear.

c. Homoscedasticity Test

The homoscedasticity test was performed to determine whether or not the variances between groups were equal or comparable. The homoscedasticity test was conducted with JASP and a significance level of 0.05. A significance value less than 0.05 indicated that the data population group variants were not identical (not homogeneous).

d. Multicollinearity Test

The researcher analyzed the correlations between predictor variables in the multiple regression model to evaluate multicollinearity. If significant associations were discovered, this indicated the presence of multicollinearity, which could compromise the validity of the results.

e. Testing Hypothesis

Preposition T-tests and F-tests were utilized during the testing process. T-tests were used to ascertain the effect of the independent variable (X) on the dependent variable (Y). The F-tests simultaneously assessed whether the independent variable (X) affected the dependent variable (Y). In addition, the coefficient of determination test was utilized to determine the proportion of variable X's simultaneous influence on variable Y.

RESULTS AND DISCUSSION

Normality Test

The search for normalcy is a fundamental ritual that dates back to the early days of statistical analysis. It reveals the character of the data, revealing whether it whispers along with the well-known Gaussian distribution melody or sings a different tune, announcing distinctive patterns and traits. The story of normalcy tests is one of examination and discovery, illuminating the fundamental organization of datasets and directing statistical pursuits toward relevant analyses and interpretations. Hence, the process of going through normality tests not only makes the data more compliant, but also uncovers the story that lies beneath, which helps to shape the course of statistical investigation.

Using the JASP Program, the researcher determined whether the data above is normal or not. The result of the test is shown below.

Table 1. Descriptive Statistics

	Self-Motivation (*X*1)	**Interaction (*X*2)**	**Satisfaction (*Y*)**
Valid	57	57	57
Missing	0	0	0
Mean	79	78.368	77.544
Std. Deviation	11.766	11.958	13.496
Skewness	-0.021	0.035	0.22
Std. Error of Skewness	0.316	0.316	0.316
Kurtosis	-0.843	-1.131	-1.155
Std. Error of Kurtosis	0.623	0.623	0.623
Shapiro-Wilk	0.976	0.952	0.93
P-value of Shapiro-Wilk	0.3	0.024	0.003
Minimum	55	59	56
Maximum	100	99	100

Homoscedasticity, also known as variance homogeneity, is the assumption that variances in distinct groups are equal or similar. Because parametric statistical tests are sensitive to differences, this is an essential assumption. Uneven sample variance leads to biased and skewed test results.

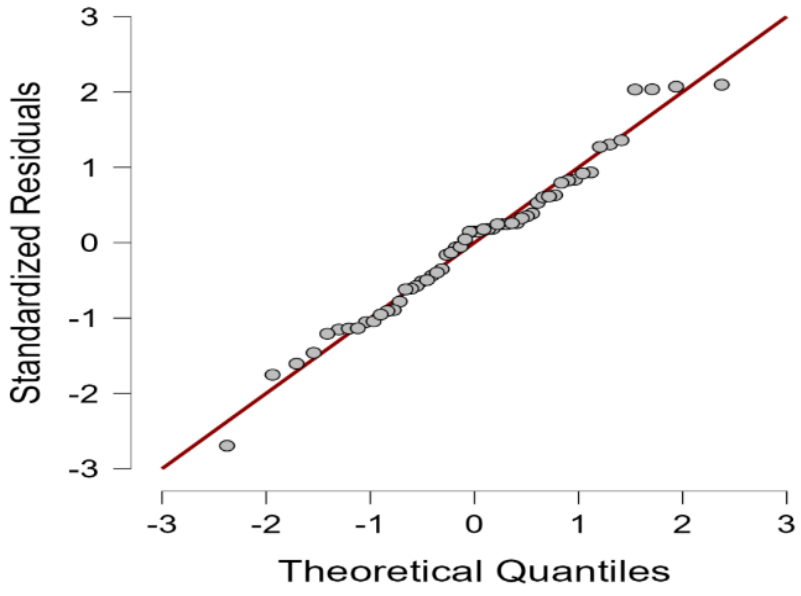

Figure 1. Q-Q Plot Standardized Residuals

The inclination of the line in the context of residual vs predicted suggests that the residual remains unaffected by other factors. A random distribution in the scatter plot is desirable; any discernible pattern could signal potential heteroscedasticity or a violation of the homoscedasticity assumption.

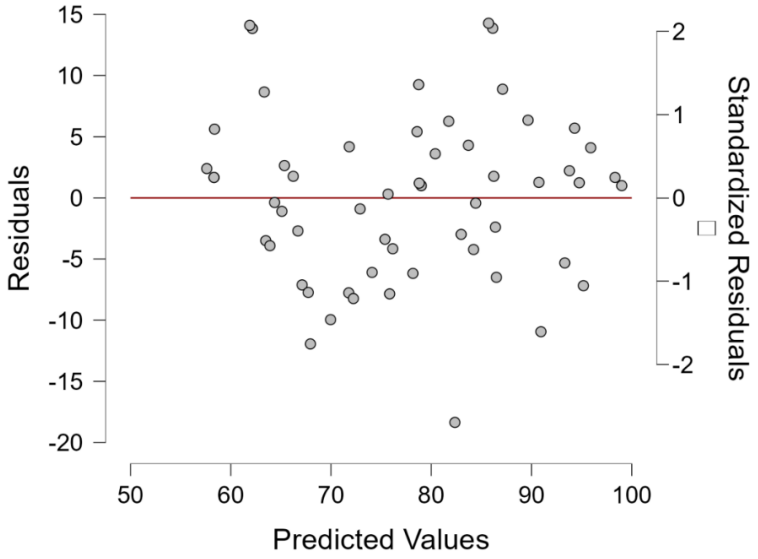

Figure 2. Residuals vs. Predicted

1. Linearity Test

Using the JASP program, the researcher determined whether the data above is linear or not. The final result is shown below.

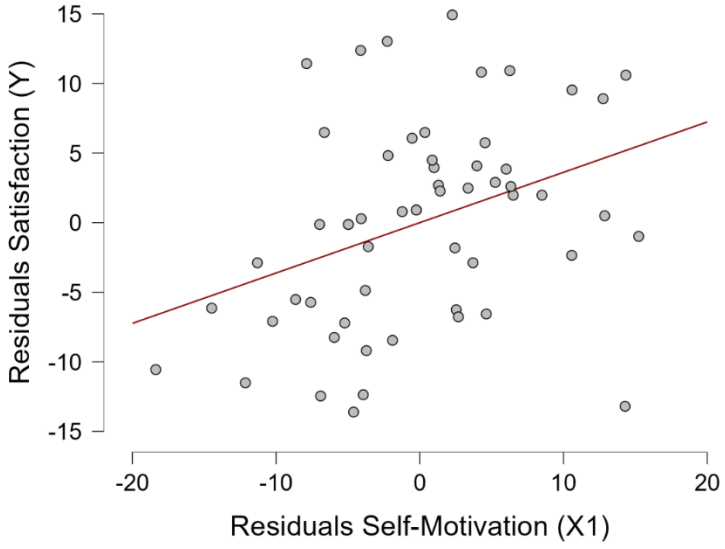

Figure 3. Satisfaction (Y) vs. Self-Motivation (X1)

A visual depiction of their possible link within the context of the phenomenon being studied is provided by Figure 3, which shows the relationship between self-motivation (X1) and satisfaction (Y). The relationships between these factors are shown graphically to show if higher levels of self-motivation are linked to greater satisfaction or indicate other dynamics. Understanding the type and strength of correlations between variables depends on these kinds of visualizations. Whether the data aligns linearly,

showing a direct relationship, or is spread unevenly, indicating a weak association, the arrangement of data points along an axis shows patterns. More than merely correlation can be gleaned from the assessment of these data, including insights into the motivational factors influencing satisfaction levels. As a result, Figure 3 serves as a crucial resource for elucidating the intricate relationships between satisfaction and self-motivation and for directing further investigation of the mechanisms influencing personal satisfaction inside the confines of the study framework.

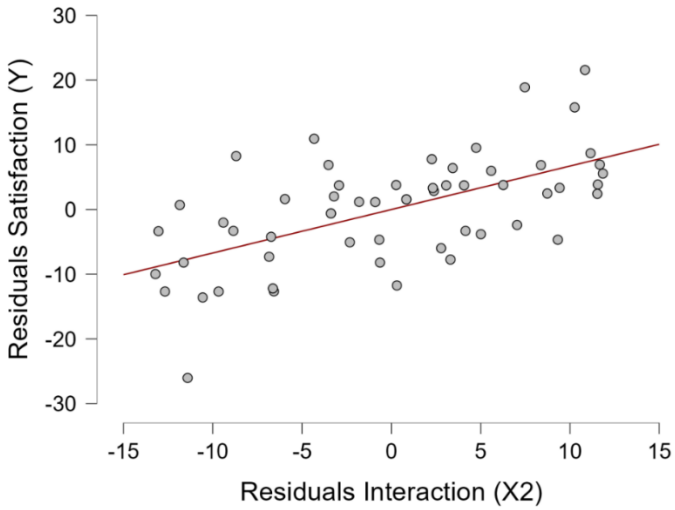

Figure 4. Satisfaction (Y) vs. Interaction (X2)

A statistical technique called the Multicollinearity Test is used to evaluate whether ulticollinearity exists among independent variables in a regression model and how severe it is. When two or more independent variables in a regression model have a strong correlation, it is known as multicollinearity, and this can cause problems with the model's interpretation and dependability.

Table 2. Multicollinearity Test

							Collinearity Statistics	
Model		**Unstandardized**	**Standard Error**	**Standardized**	**t**	**p**	**Tolerance**	**VIF**
H_0	(Intercept)	77.544	1.788		43.379	< .001		
H_1	(Intercept)	-3.687	6.595		-0.559	0.578		
	Self-Motivation (X1)	0.362	0.125	0.315	2.895	0.005	0.398	2.514
	Interaction (X2)	0.672	0.123	0.595	5.466	< .001	0.398	2.514

Table 3. Linear Regression

Model Summary - Satisfaction (Y)				
Model	**R**	**R^2**	**Adjusted R^2**	**RMSE**
H_0	0.000	0.000	0.000	13.496
H_1	0.863	0.745	0.736	6.938

The findings suggest that the alternative hypothesis (H_1) offers a notably superior fit to the data compared to the null hypothesis (H_0). The model, incorporating predictor variables, accounts for a substantial portion of the variance in the "Satisfaction" variable, as evidenced by the R^2 value of 0.745. Additionally, the lower RMSE value of 6.938 in the alternative hypothesis implies that the model's predictions align more closely with actual values than those in the null hypothesis. The significance of this value will be further explored in the ANOVA table below.

Table 4. ANOVA

Model		Sum of Squares	df	Mean Square	F	P
H_1	Regression	7600.934	2	3800.467	78.957	< .001
	Residual	2599.206	54	48.133		
	Total	10200.140	56			

Note. The intercept model is omitted, as no meaningful information can be shown.

The table displays a significant F value of 78.957 with a p-value < .001, signifying the significance of self-motivation and interaction in predicting satisfaction collectively. Refer to the coefficients table below for detailed insights into each variable's contribution.

Table 5. Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p	Tolerance	VIF
H_0	(Intercept)	77.544	1.788		43.379	< .001		
H_1	(Intercept)	-3.687	6.595		-0.559	0.578		
	Self-Motivation (X1)	0.362	0.125	0.315	2.895	0.005	0.398	2.514
	Interaction (X2)	0.672	0.123	0.595	5.466	< .001	0.398	2.514

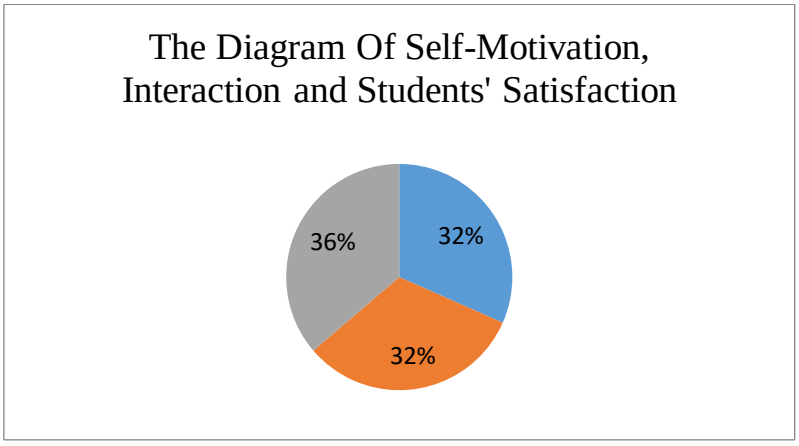

Figure 5. Self-motivation, Interaction and Students' Satisfaction

The regression model underscores the substantial impact of Self-Motivation (X1) and Interaction (X2) as significant predictors of Satisfaction (Y). The model, explaining approximately 74.5 percent of the variance in Satisfaction, emphasizes the crucial roles that Self-Motivation and Interaction play in shaping individual satisfaction levels. Higher levels of both Self-Motivation and Interaction correlate positively with increased Satisfaction, as evidenced by their respective coefficients.

The absence of a significant multicollinearity issue between Self-Motivation and Interaction, as indicated by collinearity statistics, allows for a reliable interpretation of their individual effects on Satisfaction. This suggests that these predictor variables are not highly correlated, enabling a more nuanced understanding of how each independently contributes to Satisfaction. The ANOVA results further affirm the model's significance, establishing that Self-Motivation and Interaction jointly make significant contributions to predicting Satisfaction. Pearson's correlation coefficients strengthen the findings, revealing significant positive correlations between Self-Motivation, Interaction, and Contentment. The study underscores that higher levels of Self-Motivation and Interaction are associated with increased Satisfaction. Particularly, the strong correlation between Interaction and Satisfaction highlights the profound impact of interpersonal interactions on satisfaction levels.

Examining the coefficients for Self-Motivation and Interaction, the researcher notes that an increase in these factors corresponds to a rise in Satisfaction. This implies that individuals who exhibit self-motivation and engage actively in social interactions are more likely to experience heightened Satisfaction. The practical implication for organizations and individuals seeking to enhance satisfaction levels is clear: fostering self-motivation and promoting positive interactions can positively influence Satisfaction. The lack of multicollinearity between Self-Motivation and Interaction underscores the importance of considering and addressing both factors independently to increase Satisfaction. This insight provides a strategic approach for organizations and individuals aiming to optimize satisfaction levels by recognizing the unique contributions of Self-Motivation and Interaction.

The significant positive correlations demonstrated by Pearson's coefficients suggest a meaningful relationship between Self-Motivation, Interaction, and Satisfaction. Individuals with elevated levels of Self-Motivation and frequent interpersonal interactions are more likely to report greater Satisfaction. The strong correlation between Interaction and Satisfaction accentuates the impact of social interactions on overall satisfaction levels.

CONCLUSION

Based on the insights gleaned from the preceding chapters, the study's findings can be categorized into distinct themes. Notably, the research uncovered a significant positive correlation between self-motivation, interaction, and satisfaction, highlighting their integral roles in determining students' satisfaction with integrated learning. Both self-motivation and interaction emerged as pivotal factors influencing students' overall satisfaction in integrated learning environments. However, it is imperative to acknowledge the study's limitations, including a restricted sample size and the specificity of the research setting. To advance the field, future research endeavours should prioritize larger and more diverse samples, adopt rigorous research designs and methodologies, and explore additional variables contributing to students' satisfaction in blended learning contexts. The outcomes of this study enrich our understanding of the factors shaping student satisfaction in integrated learning settings, offering educational institutions valuable insights for enhancing students' overall learning experiences.

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