



THE INFLUENCE OF EDUCATIONAL INTERACTION ON ECONOMICS LEARNING OUTCOMES REGARDING DEMAND AND SUPPLY MATERIAL FOR GRADE X STUDENTS AT MAS KHOIRUL ULUM, LABUHANBATU

PENGARUH INTERAKSI PENDIDIKAN TERHADAP HASIL BELAJAR EKONOMI PADA MATERI PERMINTAAN DAN PENAWARAN BAGI SISWA KELAS X DI MAS KHOIRUL ULUM, LABUHANBATU

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Abstract

This study aims to determine: 1) the nature of educational interaction regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu; 2) the students' Economics learning outcomes regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu; and 3) the significant influence of educational interaction on Economics learning outcomes regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu. This study employs a quantitative method with a population of 58 students; the sample comprises the entire population, utilizing the total sampling technique. Data collection techniques included questionnaires and documentation, while data analysis involved Product Moment Correlation, the Coefficient of Determination (R^2), and the t-test. The assessment of educational interaction regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu yielded a mean score of 74.65, falling into the Good category. The assessment of students' Economics learning outcomes regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu yielded a mean score of 78.20, also falling into the Good category. Statistical analysis using Product Moment Correlation yielded a correlation coefficient of 0.687 with a significance level of 0.000, and a Coefficient of Determination (R^2) of 0.472. Hypothesis testing results showed a calculated t-value (t-count) of 7.072 against a t-table value of 1.672, with a significance value of 0.000 at a 95% confidence level ($\alpha = 0.05$). Thus, it is evident that the significance value is less than $\alpha = 0.05$ ($0.000 < 0.05$); consequently, it can be concluded that the hypothesis (H_1) is accepted and the null hypothesis (H_0) is rejected. This indicates that there is a significant effect of educational interaction on student learning



outcomes regarding the topic of supply and demand in Class X at MAS Khoirul Ulum Labuhanbatu.

Keywords : Educational Interaction, Student Learning Outcomes.

Abstrak

Penelitian ini bertujuan untuk mengetahui: 1) gambaran interaksi edukatif pada materi Permintaan dan Penawaran di Kelas X MAS Khoirul Ulum Labuhanbatu; 2) hasil belajar Ekonomi siswa pada materi Permintaan dan Penawaran di Kelas X MAS Khoirul Ulum Labuhanbatu; serta 3) pengaruh signifikan interaksi edukatif terhadap hasil belajar Ekonomi pada materi Permintaan dan Penawaran di Kelas X MAS Khoirul Ulum Labuhanbatu. Penelitian ini menggunakan metode kuantitatif dengan populasi sebanyak 58 siswa; sampel yang diambil mencakup seluruh populasi dengan menggunakan teknik sampling jenuh (total sampling). Teknik pengumpulan data meliputi kuesioner dan dokumentasi, sedangkan analisis data menggunakan Korelasi Product Moment, Koefisien Determinasi (R^2), dan uji-t. Penilaian terhadap interaksi edukatif pada materi Permintaan dan Penawaran di Kelas X MAS Khoirul Ulum Labuhanbatu menunjukkan skor rata-rata sebesar 74,65, yang termasuk dalam kategori "Baik". Penilaian terhadap hasil belajar Ekonomi siswa pada materi Permintaan dan Penawaran di Kelas X MAS Khoirul Ulum Labuhanbatu menunjukkan skor rata-rata sebesar 78,20, yang juga termasuk dalam kategori "Baik". Analisis statistik menggunakan Korelasi Product Moment menghasilkan koefisien korelasi sebesar 0,687 dengan tingkat signifikansi 0,000, serta Koefisien Determinasi (R^2) sebesar 0,472. Hasil pengujian hipotesis menunjukkan nilai t-hitung sebesar 7,072 dibandingkan dengan nilai t-tabel sebesar 1,672, dengan tingkat signifikansi 0,000 pada tingkat kepercayaan 95% ($\alpha = 0,05$). Dengan demikian, terlihat bahwa nilai signifikansi lebih kecil dari $\alpha = 0,05$ ($0,000 < 0,05$); oleh karena itu, dapat disimpulkan bahwa hipotesis (H_1) diterima dan hipotesis nol (H_0) ditolak. Hal ini menunjukkan bahwa terdapat pengaruh yang signifikan dari interaksi edukatif terhadap hasil belajar siswa mengenai topik penawaran dan permintaan di Kelas X MAS Khoirul Ulum Labuhanbatu.

Kata Kunci : Interaksi Edukatif, Hasil Belajar Siswa.

1. INTRODUCTION

Education is a key determinant of success in efforts to cultivate high-quality human resources. It serves as an indicator of a nation's human resource quality; the higher the quality of education, the greater the country's potential to enhance its human capital. This is because education fosters knowledge and elevates both the quality of life and human dignity.

The rapid pace of globalization and technological advancement compels the education sector to continuously adapt in order to produce high-quality graduates. In the economic sphere, Senior High School (SMA) education plays a vital role in shaping a generation ready to advance the national economy and capable of intelligently addressing existing economic challenges. Through economic education, students are encouraged to make wise decisions regarding the socio-economic dynamics of the global community. One of the topics covered in the second semester of Grade X is "Demand and Supply," which equips students with valuable insights and knowledge. However, expected learning outcomes are often not fully achieved. Interviews with Ms. Sri Melur Daulay, S.E. the Grade X Economics teacher at MAS Khoirul Ulum Labuhanbatu revealed that many Grade X students score below 70 on daily assessments. These poor results reflect a mismatch between the instructional process and the students' actual comprehension and mastery of the material.

A highly dominant external factor and often the key to successful knowledge transfer is the quality of the relationship or interaction established between the teacher and students in the classroom. Fundamentally, the learning process is one of communication and interaction, rather than merely a



one-way transfer of knowledge. In this context, educational interaction plays a vital role as a bridge connecting instructional material with student understanding. Educational interaction is not merely ordinary conversation; rather, it is a purposeful, planned, and educationally valuable reciprocal relationship aimed at developing the full potential of the learners.

Educational interaction lies at the heart of the teaching-learning process; a harmonious and communicative relationship between the educator and the learner is a key determinant of whether learning objectives are successfully achieved. When interaction is one-sided, rigid, and tedious, students tend to become passive, reluctant to ask questions, and struggle to grasp the material effectively. Conversely, when educational interaction is successful characterized by fluid communication, the teacher's full attention, a personal approach, and a conducive classroom atmosphere students feel more comfortable and motivated, becoming actively engaged in the learning process.

To improve student learning outcomes regarding the topic of supply and demand, teachers should employ approaches that stimulate student interest, such as fostering educational interaction. If such an approach is implemented effectively, it will undoubtedly lead to positive change, transforming previously low learning outcomes into the desired level of achievement. Based on the issues outlined above, the author is motivated to conduct a study titled "The Influence of Educational Interaction on Economics Learning Outcomes Regarding Supply and Demand for Grade X Students at MAS Khoirul Ulum, Labuhanbatu."

2. RESEARCH METHOD

This study employs a quantitative approach, specifically a descriptive method designed to describe and present an accurate picture of the independent and dependent variables as they exist. The research will be conducted at MAS Khoirul Ulum Labuhanbatu, located in Sei Sanggul Village, Panai Hilir District, Labuhanbatu Regency, North Sumatra Province (postal code 21473).

The subjects of this study are students from classes X-1 and X-2 at MAS Khoirul Ulum Labuhanbatu, totaling 58 individuals; a total sampling technique is used. Data collection instruments include questionnaires and documentation. The analysis techniques employed are descriptive analysis, Pearson product-moment correlation, the coefficient of determination test, and the t-test.

3. RESULT AND DISCUSSION

a. Distribution of Data on Educational Interaction in Class X at MAS Khoirul Ulum Labuhanbatu

Data was collected using questionnaires distributed to students. The data was then processed using SPSS to determine descriptive statistics. The results of the data processing are presented in the following table:

Table 1. Minimum, Maximum, and Mean Scores for Educational Interaction in Class X MAS Khoirul Ulum Labuhanbatu

Descriptive Statistics		
Interaksi Edukatif		
N	Valid	58
	Missing	0
Mean		74.6552
Median		75.0000
Mode		73.00
Std. Deviation		5.55215
Minimum		64.00
Maximum		85.00

Source : SPSS 26 data processing



Based on the results in the table above, data was obtained from 58 student respondents. The "Educational Interaction" variable shows a minimum score of 64 and a maximum score of 85. The mean score for Variable X (Educational Interaction) is 75.00; when compared against the assessment criteria outlined in Chapter III, the level of Educational Interaction in Class X at MAS Khoirul Ulum Labuhanbatu falls into the "Good" category.

b. Description of Learning Outcome Data on the Topic of Demand and Supply for Class X at MAS Khoirul Ulum Labuhanbatu

Data collection for variable Y (Student Learning Outcomes) involved documenting the results of 58 students regarding the topic of demand and supply. The data was subsequently processed using SPSS to generate a statistical description.

Table 2. Minimum, Maximum, and Mean Scores for Student Learning Outcomes on the Topic of Demand and Supply (Class X, MAS Khoirul Ulum Labuhanbatu)

Descriptive Statistics		
Hasil Belajar		
N	Valid	58
	Missing	0
Mean		78.2069
Median		78.0000
Mode		80.00
Std. Deviation		5.27742
Minimum		69.00
Maximum		90.00

Sumber : pengolahan data SPSS 26

Based on the results in the table above, data was obtained from 58 student respondents in Grade X at MAS Khoirul Ulum Labuhanbatu. The data regarding student learning outcomes on the topic of supply and demand covers two classes—Class X-1 and Class X-2—comprising a total of 58 students (respondents); the scores ranged from a minimum of 69 to a maximum of 90. The mean score for Variable Y (student learning outcomes on the topic of supply and demand) was 78.20. When this result is evaluated against the assessment criteria outlined in Chapter III, the standing of the student learning outcomes for Grade X at MAS Khoirul Ulum Labuhanbatu falls into the "Good" category.

Inferential Statistical Analysis

There are several stages in the calculation and testing process to determine whether the research hypothesis is accepted or rejected. The hypothesis aims to ascertain whether there is a significant influence between the variables under study and to determine whether the hypothesis can be accepted or rejected.

1. Product-Moment Correlation Test

Table 3. Product-moment correlation

Correlations			
		Interaksiedukatif	Hasil belajar
Interaksi Edukatif	Pearson Correlation	1	.687**
	Sig. (2-tailed)		.000
	N	58	58
Hasil Belajar	Pearson Correlation	.687**	1
	Sig. (2-tailed)	.000	
	N	58	58

** . Correlation is significant at the 0.01 level (2-tailed).

Sumber : pengolahan data SPSS 26

Based on the results of statistical testing using Product-Moment Correlation analysis, a correlation coefficient of 0.687 was obtained with a significance level of 0.000. Comparing the significance value with the alpha level ($\alpha = 0.05$) and observing that r -calculated $>$ r -table ($0.687 >$



0.263), it can be concluded that the educational interaction between teachers and students plays a significant role in student learning outcomes. Thus, the greater the support and positive influence derived from this educational interaction, the higher the likelihood of students achieving better learning outcomes.

2. Coefficient of Determination

The Coefficient of Determination is used to measure the extent to which the model explains the variance of the dependent variable (Ghozali, 2018). The value of the coefficient of determination ranges between zero and one.

Table 4.8 Coefficient of Determination Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.687 ^a	.472	.462	3.86975
Predictors: (Constant), Interaksi Edukatif				
Dependent variabel : Hasil Belajar Siswa				

Sumber : Pengolahan data SPSS 26

Based on the test results presented in the table above, the coefficient of determination (R-Square) is 0.472. This result indicates that Variable X (Educative Interaction) contributes 47.2% to the influence on Variable Y (Student Learning Outcomes), while the remaining 52.3% is influenced by other variables not examined in this study.

3. T-Test

The T-test is conducted to determine the influence of an independent variable on a dependent variable. The decision-making basis utilizes a probability approach with a significance level of $\alpha = 0.05$.

- If the Sig. value > 0.05 , then H_a is accepted.
- If the Sig. value < 0.05 , then H_0 is rejected.

Table 4.9 T-Test

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	29.468	6.911		4.264	.000
	Interaksi Edukatif	.653	.092	.687	7.072	.000

a. Dependent Variable: Hasil Belajar

Sumber : Pengolahan data SPSS 26

Based on the SPSS version 26 output calculations shown in the table above, the hypothesis test yielded a calculated t-value (t_{count}) of 7.072 (compared to a critical t-value/ t_{table} of 1.672) with a significance value (sig.) of 0.000 at a 95% confidence level (or a significance level of $\alpha = 0.05$). Thus, it is evident that the significance value is less than $\alpha = 0.05$ ($0.000 < 0.05$), indicating a significant influence of educational interaction on student learning outcomes regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu. Consequently, it can be concluded that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected; the hypothesis is thus accepted and its validity confirmed.

1. Overview of Educational Interaction in Class X at MAS Khoirul Ulum Labuhanbatu Based on the results obtained from the questionnaire regarding Educational

Interaction (Variable X) across the various indicators:

- Educational interaction regarding the indicator of classroom management and control in Class X at MAS Khoirul Ulum Labuhanbatu yielded an average score of 3.73; when measured against the assessment criteria, this falls into the "Good" category, meaning the outcome is positive and aligns



- with expectations.
- b. Educational interaction regarding the indicator of information delivery in Class X at MAS Khoirul Ulum Labuhanbatu yielded an average score of 3.68; when measured against the assessment criteria, this falls into the "Good" category, meaning the outcome is positive and aligns with expectations.
 - c. Educational interaction regarding the indicator of stimulating feedback in Class X at MAS Khoirul Ulum Labuhanbatu yielded an average score of 3.83; when measured against the assessment criteria, this falls into the "Good" category, meaning the outcome is positive and aligns with expectations.
 - d. The impact of educational interaction on the "evaluating activities" indicator among Class X students at MAS Khoirul Ulum Labuhanbatu yielded an average score of 3.67; when measured against the assessment criteria, this falls into the "Good" category, indicating that the outcome is positive and aligns with expectations.

Based on the description above, it is evident that the highest score is found in the third indicator regarding "Stimulating Feedback," with a score of 3.83, placing it in the "Good" category; this indicates that the results align with expectations.

2. Overview of Student Learning Outcomes on the Topic of Demand and Supply in Class X MAS Khoirul Ulum Labuhanbatu

Data obtained from 58 respondents regarding student learning outcomes on the topic of demand and supply in Class X MAS Khoirul Ulum Labuhanbatu shows a minimum score of 69 and a maximum score of 90. Based on the frequency distribution of student learning outcomes in this study, the most frequently occurring score is 80, achieved by 7 students (12.1%). This is followed by a score of 74, achieved by 6 students (10.3%), and a score of 82, also achieved by 6 students (10.3%). Meanwhile, other scores show lower frequencies, ranging from 1 to 5 students. The mean score for Variable Y (student learning outcomes on the topic of demand and supply) is 78.20. When compared against the assessment criteria outlined in Chapter III, the student learning outcomes for this topic in Class X MAS Khoirul Ulum Labuhanbatu fall into the "Good" category.

3. The Influence of Educational Interaction on Student Learning Outcomes Regarding Demand and Supply in Class X MAS Khoirul Ulum Labuhanbatu

Statistical testing using Product Moment Correlation analysis yielded a correlation coefficient of 0.687 with a significance level of 0.000. This value indicates a very strong and significant relationship between the variable of Educational Interaction and student learning outcomes regarding the topic of demand and supply in Class X MAS Khoirul Ulum Labuhanbatu. The R-squared coefficient of determination is 0.472. This result indicates that the variable X (Educative Interaction) contributes 47.2% to the influence on variable Y (Student Learning Outcomes), while the remaining 52.3% is influenced by other variables not examined in this study. Hypothesis testing yielded a t-calculated value of 7.072, compared to a t-table value of 1.672, with a significance value of 0.000 at a 95% confidence level (or a 5% significance level, $\alpha = 0.05$). Since the significance value is less than $\alpha = 0.05$ ($0.000 < 0.05$), it can be concluded that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_o) is rejected; this signifies a significant influence of Educative Interaction on Student Learning Outcomes regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu.

4. CONCLUSION

1. Data regarding the educational interaction in Class X at MAS Khoirul Ulum Labuhanbatu, obtained from 58 student respondents, shows a minimum score of 64 and a maximum of 85 for the educational interaction variable. The most frequent score was 73, recorded by 6 students (10.3%). This was followed by a score of 76, recorded by 5 students (8.6%), while other scores had lower frequencies, ranging from 1 to 4 students. The mean score was 74.65; when compared against the assessment criteria outlined in Chapter III, this falls into the "Good" category.



2. Data regarding student learning outcomes on the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu, obtained from 58 student respondents, shows a minimum score of 69 and a maximum of 90. The most frequent score was 80, achieved by 7 students (12.1%). This was followed by a score of 74, achieved by 6 students (10.3%), and a score of 82, also achieved by 6 students (10.3%). Meanwhile, other scores had lower frequencies, ranging from 1 to 5 students. The mean score was 78.20; when compared against the assessment criteria outlined in Chapter III, this falls into the "Good" category.
3. Based on the SPSS 26 hypothesis testing calculations, the obtained t-value (t-count) was 9.124, while the t-table value was 1.672, with a significance value (sig) of 0.000 at a 95% confidence level (or a significance level of $\alpha = 0.05$). Thus, it is evident that the significance value is less than $\alpha = 0.05$ ($0.000 < 0.05$), indicating a significant influence of educational interaction on student learning outcomes regarding the topic of Demand and Supply in Class X at MAS Khoirul Ulum Labuhanbatu. Thus, it can be concluded that the alternative hypothesis (H_a) is accepted and the null hypothesis (H_o) is rejected, and the hypothesis is accepted and its validity confirmed.

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