



# **Impact of Learning Resources and Environment on Social Studies Achievement: A Case Study of Gorontalo Municipality Secondary Education, Indonesian**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

This study aims to determine how much influence the Use of Textbooks, the Internet as a Learning Source, the Intensity of Assignment Giving and the Learning Environment have on Student Learning Outcomes in Integrated Social Studies Subjects at SMP Negeri 10, Gorontalo City. This study uses a quantitative method with data analysis techniques using Multiple Linear Regression. The sample in the study amounted to 156 students. Sampling was carried out using the Stratified proportional random sampling technique. The research data came from primary sources with multiple linear regression analysis by the help of the Eviews Version 21 program.

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The results of the study show that: The use of textbooks, the internet as a learning source, the intensity of assignment giving and the learning environment together have a significant effect on student learning outcomes in integrated social studies subjects at SMP Negeri 10, Gorontalo City with a determination coefficient of 75.90%.

**Keywords:** *Textbooks; internet as a learning source; intensity of assignment giving; learning environment; learning outcomes.*

## 1. INTRODUCTION

Education has a vital role in developing students' potential, from ignorance, inability, and dishonesty to forming hearts, morals, and faith. The management of quality, practical education that can produce satisfactory learning outcomes is the expectation not only of teachers but also of parents and all related parties. Students, as the main component in the learning process, must work hard to achieve optimal learning outcomes. Students' learning success is often characterized by positive changes in themselves in terms of academic ability and personal development (Afrinaval & S., 2019).

This success is influenced by various factors, both internal and external, such as teaching methods, learning media, learning resources, curriculum, learning styles, learning readiness, interest, socioeconomic conditions, as well as parental and peer attention (Winarno & Ashari, 2022). Learning resources, as one of the important elements in the learning process, include various things that can be used to assist educators and students in achieving learning objectives and developing their competencies (Azizah, 2020). Textbooks, as the primary source of learning, still play an important role. However, with the advancement of technology, the internet is now a source of information that is easily accessible and very supportive of the learning process (Sukaeni et al., 2020).

According to Khaeriyah and Amir (2017), the internet is a technology that enables the search for information quickly as needed. Initially created to facilitate human activities, the internet has become a handy tool in education. Through the internet, students can access various learning materials that complement the information conveyed by the teacher so that students' knowledge can develop more broadly. Using the Internet in education has significant benefits for students and teachers. Students can access various learning materials online, while teachers can find teaching materials that are

innovative and relevant to their needs (Suardi et al., 2018).

However, in addition to the influence of the internet, learning environment factors also play an important role in student learning outcomes. A conducive learning environment can facilitate the achievement of learning objectives and increase student motivation. Widiastuty et al. (2021) revealed that supportive environmental conditions significantly affect student motivation in learning the material provided. A good learning environment, both physical and social, can create a comfortable atmosphere and support the teaching and learning process. Pahriji (2021) also added that a conducive environment will positively impact learning motivation and learning outcomes obtained by students.

Another factor that is no less important is teacher assignment. Giving assignments is one of the effective ways to improve students' understanding of the material being taught. According to Roestiyah (2016), assignments given to students will encourage them to think creatively and do more activities, which in turn can improve their memory and understanding of the subject matter. On the other hand, assignments can also measure the extent to which students' knowledge can be mastered and stored in long-term memory.

In the context of education at SMP Negeri 10 Gorontalo City, observation results show several learning challenges, especially in social studies subjects. Many students find this subject less interesting and challenging to remember and have difficulty understanding the material taught. Based on the data obtained, several students have not achieved the Learning Objective Achievement Criteria (KKTP) set. Most students also showed a lack of attention when attending lessons and carrying out tasks the teacher gave. This has implications for the low learning outcomes achieved by students.

This research is motivated by the gap phenomenon found in the observation, where

many students still have not achieved optimal learning outcomes. Based on previous studies, several factors can affect student learning outcomes, including using textbooks, using the internet as a learning resource, intensity of assignments, and learning environment conditions. However, few studies still holistically examine these factors' influence on student learning outcomes, especially in the context of junior high school education. Therefore, this study aims to fill the research gap by examining the influence of textbook use, internet as a learning resource, assignment intensity, and learning environment on student learning outcomes in Integrated Social Studies subjects at SMP Negeri 10 Gorontalo City. This study combines four independent variables, namely the use of textbooks, the internet as a learning resource, the intensity of assignments, and the learning environment, and one dependent variable, namely learning outcomes. This study aims to analyse the effect of using textbooks, the Internet as a learning resource, the intensity of assignments, and the learning environment on student learning outcomes in integrated social studies subjects in Gorontalo City Junior High School.

## 2. MATERIALS AND METHODS

This research was conducted at SMP Negeri 10 Gorontalo City. This research uses a quantitative approach with an explanatory research design to explain the relationship between the variables studied. To analyze the data, this study applied a *multiple linear regression* technique, which was used to see how much the contribution of each independent variable (textbook use, internet, assignment intensity, and learning environment) to the dependent variable (student learning outcomes).

The sample in this study consisted of 156 students selected through the *Stratified Proportional Random Sampling* technique. This technique was chosen to ensure a proportional representation of each group in the population (for example, by class or ability level) so that the results obtained can reflect a more general condition of all students in SMP Negeri 10 Gorontalo City. This sample determination refers to the principle of *probability sampling*, which provides an equal opportunity for each individual in the population to be selected as a sample so that the research results are reliable and generalizable (Sekaran, 2016; Sugiyono, 2018).

The data used in this study come from primary data obtained through filling out questionnaires by students, which contain questions related to the use of textbooks, the use of the internet as a learning resource, the frequency of giving assignments by teachers, and the quality of the learning environment at school. Furthermore, the collected data were analysed using *multiple linear regression* techniques with the help of the *Eviews Version 21* program. This regression analysis aims to identify significant relationships between independent variables and student learning outcomes and to determine how much influence each variable has on learning outcomes (Hair et al., 2014).

The use of *Eviews* as an analytical tool was chosen because of its ability to process extensive data and present results that are easy to interpret, especially in multivariate statistical analysis such as multiple linear regression (Gujarati, 2015). The results of this study are expected to provide further insight into the factors that influence student learning outcomes and provide recommendations for schools to improve the quality of education.

## 3. RESULTS

### 3.1 Multiple Regression Testing

The results of multiple regression analysis with the help of the E-Views software.

Based on the results of the analysis, the multiple linear regression model that wakes up is:

$$\hat{Y} = -1,758 + 0,262X_{PBT} - 0,044X_{ISB} + 0,110X_{IPB} + 0,890X_{LB} + e$$

### 3.2 Coefficient of Determination

Based on the Table 1 above, the influence of independent variables in explaining the dependent variable is measured using the coefficient of determination or R-squared ( $R^2$ ) value. In this study, the  $R^2$  value of 0.759 indicates that 75.90% of the variability of student learning outcomes in integrated social studies subjects at SMP Negeri 10 Gorontalo City can be explained by the variables studied, namely the use of textbooks, the internet as a learning resource, the intensity of assignments, and the learning environment. This means that these factors make a significant contribution to the achievement of student learning outcomes.

However, the variables studied in this research cannot explain the remaining 24.10% of the variability in student learning outcomes. This indicates that other factors influence student learning outcomes, such as student competence, learning motivation, learning interest, student personality, peer support, classroom management by teachers, parental support, and the learning models and strategies applied. Further research must consider these factors to get a more comprehensive picture of their influence on student learning outcomes. Furthermore, the equation proves that in this study, the variables of textbook use, assignment intensity, and learning environment positively affect student learning outcomes. On the other hand, the Internet as a learning resource has a negative effect. Increasing the Internet as a learning resource hurts student learning outcomes. It is also explained by Liang et al (2022) that textbook use, assignment intensity, and learning environment have a positive impact on learning outcomes. Conversely, excessive dependence on the internet can lead to reduced focus and critical thinking skills.

### 3.3 Simultaneous Testing (F Test)

The  $F_{\text{count}}$  value of this study is 123.042. Meanwhile, the  $F_{\text{table}}$  value at the 5% significance level and df1 of  $k = 4$  and df2 of  $N-k-1 = 156-4-1 = 151$  is 2.432. If these two F values are compared, the  $F_{\text{count}}$  value obtained is much

greater than  $F_{\text{table}}$  and the probability value of 0.0000 which is smaller than the alpha value of 5% ( $0.0000 < 0.05$ ). So that the use of textbooks, the internet as a learning resource, the intensity of assignments and the learning environment together have a significant effect on student learning outcomes in integrated social studies subjects at SMP Negeri 10 Gorontalo City.

### 3.4 Partial Testing (t test)

#### 3.4.1 Variable of textbook usage

The t-count value for the textbook usage variable was obtained at 4.408, while the t-table value was at the 5% significance level, and the  $n-k-1$  or  $156-4-1=151$  independent degree was 1.976. If the two t values are compared, the t-count value is still more significant than the t-table value ( $4.408 > 1.976$ ). Then the probability value of 0.000 is smaller than the alpha value of 5% ( $0.0000 < 0.05$ ). Therefore, it is concluded that at the 95% confidence level, textbooks have a positive and significant effect on student learning outcomes in integrated social studies subjects at SMP Negeri 10 Gorontalo City. This result means that the use of textbooks has a positive effect on student learning outcomes. This result is in Li and Wang (2024) opinion that using textbooks increases students' understanding so that it positively impacts learning outcomes.

**Table 1. Multiple regression analysis results**

Dependent Variable: HB				
Method: Least Squares				
Sample: 1 156				
Included observations: 156				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.758226	2.910107	-0.604179	0.5466
PBT	0.262410	0.059527	4.408272	0.0000
ISB	-0.044521	0.045974	-0.968413	0.3344
IPT	0.110461	0.059110	1.868734	0.0636
LB	0.890068	0.075736	11.75232	0.0000
R-squared	0.765225	Mean dependent var		56.46389
Adjusted R-squared	0.759006	S.D. dependent var		7.904456
S.E. of regression	3.880388	Akaike info criterion		5.581274
Sum squared resid	2273.669	Schwarz criterion		5.679025
Log likelihood	-430.3393	Hannan-Quinn criter.		5.620976
F-statistic	123.0424	Durbin-Watson stat		1.830505
Prob(F-statistic)	0.000000			

Source: E-Views 21 processed data, 2024

### 3.4.2 Internet variables as learning resources

The t-count value for the internet variable as a learning resource was obtained at -0.968, the t-table value was at the 5% significance level, and the n-k-1 or  $156-4-1=151$  independent degree was 1.976. If the two t values are compared, the t-count value is still smaller than the t-table value ( $0.968 < 1.976$ ). Then the probability value of 0.3344 is greater than the alpha value of 5% ( $0.3344 > 0.05$ ). Therefore, it is concluded that at a 95% confidence level, the internet as a learning resource has a negative and insignificant effect on student learning outcomes in integrated social studies subjects at SMP Negeri 10 Gorontalo City. This result means that the use of the internet as a learning resource at school tends to make students less focused, or the internet will be used more for playing by students, so it will impact decreasing student learning outcomes. Moreover, using the internet through smartphones at school is problematic for teachers to supervise. This is supported by (Gómez-Fernández and Mediavilla, 2018), that the Internet can cause distractions that reduce the focus of learning so that learning negatively affects learning outcomes.

### 3.4.3 Assignment intensity variable

The t-count value for the variable assignment intensity was obtained at 1.869 while the t-table value at the 5% significance level and n-k-1 free degree or  $156-4-1 = 151$  was 1.976. If the two t values are compared, the t-count value is still smaller than the t-table value ( $1.869 < 1.976$ ). Then the probability value of 0.0636 is greater than the alpha value of 5% ( $0.0636 > 0.05$ ). Therefore, it is concluded that at the 95% confidence level, the

intensity of assignment has a positive and insignificant effect on student learning outcomes in integrated social studies subjects at SMP Negeri 10 Gorontalo City. This result means that the more intense the assignment for students, it will have an impact on improving student learning outcomes, even though student results. This is supported by Arofah et al. (2023), who states that the intensity of assignments will support the deepening of material and increase learning outcomes.

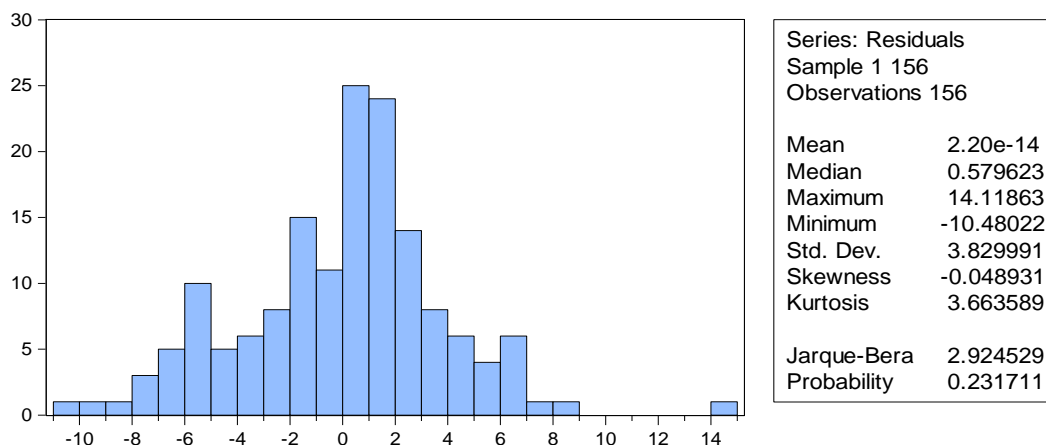
### 3.4.4 Learning environment variable

Level and n-k-1 free degree or  $156-4-1 = 151$  was 1.976. If the two t values are compared, the t-count value is still greater than the t-table value ( $11.752 > 1.976$ ). Then the probability value of 0.0000 is smaller than the alpha value of 5% ( $0.0000 < 0.05$ ) effect on student learning outcomes in integrated social studies subjects at SMP Negeri 10 Gorontalo City. So that a conducive learning environment will make it easier for students to get good learning outcomes as well. This is supported by Li's (2024) opinion that a supportive learning environment, characterised by adequate resources and teacher engagement, significantly improves student learning outcomes.

## 3.5 Classical Assumption Testing

### 3.5.1 Data normality testing

The results of data normality testing (Jarque Bera) found that the probability value of Jarque Bera was 0.231. The significance value of normality testing is greater than the alpha value of 0.05 so that it can be concluded that the data in this study follows a normal distribution.



**Fig. 1. Normality testing results**  
Source: E-Views 21 Processed Data, 2024

**Table 2. Multiple regression analysis results**

Variables	VIF	Conclusion
Use of textbooks	1.963943	Non Multicollinearity
Internet as a learning resource	1.823770	Non Multicollinearity
Intensity of assignment	2.078013	Non Multicollinearity
Learning Environment	2.019467	Non Multicollinearity

Source: Processed Data, 2024

**Table 3. Heteroscedasticity testing results arch**

Test: ARCH				
F-statistic	0.034482	Prob. F(1,153)	0.8529	
Obs*R-squared	0.034925	Prob. Chi-Square (1)	0.8518	
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Sample (adjusted): 2 156				
Included observations: 155 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.14136	2.243888	6.302169	0.0000
RESID^2(-1)	0.014919	0.080342	0.185692	0.8529

Source: E-Views 21 Processed Data, 2024

### 3.5.2 Multicollinearity

Based on the processing results, it was found that the Variance Inflation Factor (VIF) value for all independent variables was lower than the required value (number 10). So, it is concluded that the regression model does not have multicollinearity problems, so the data fulfils the multicollinearity test.

### 3.5.3 Heteroscedasticity testing

Based on the results of data processing, it can be seen that the significance value or Probability Value (P-Value) of Chi Square is greater than the alpha value of 0.05. So it is concluded that the regression model does not have heteroscedasticity problems.

## 4. DISCUSSION

In integrated social studies learning, textbooks have a central role as the main learning resource designed to fulfill the needs of the national curriculum. Textbooks not only present information about social, economic, historical, and geographical concepts in an integrated manner but also guide students through the learning process with a systematic and

structured presentation. The logical arrangement of the material makes it easier for students to understand the flow of learning, from basic concepts to practical applications. Research shows that effective use of textbooks can increase student engagement in learning as they provide clear guidance, help students understand the material independently, and prepare them for learning evaluations. In addition, textbooks serve as tools that support students in completing assignments, thereby strengthening their understanding of the subject matter. According to mwikali (2024), effective utilization of textbooks positively affects students' academic performance, suggesting that textbooks enhance understanding and engagement in learning, ultimately preparing students better for evaluation in public secondary schools in makueni county, kenya.

This literature review provides a comprehensive overview of previous studies that have explored the impact of the Internet on secondary school students' learning. While many studies have highlighted the positive impacts of internet use, such as increased access to information and resources, there are also studies that have identified negative impacts, such as distraction and decreased critical thinking skills.

In line with this research, the Internet as a learning resource has a negative impact. By looking at these contrasting perspectives, we can gain a better understanding of how the internet shapes the educational experiences of secondary school students. Similarly, Yang (2024) described the negative effects of excessive Internet use on adolescents, including decreased academic performance and depressive tendencies. It is also explained by Cai et al. (2023) that excessive Internet use has a negative effect on students' learning focus, which impacts their learning outcome.

Giving assignments regularly and with a proportionate amount plays an important role in strengthening students' understanding of learning materials. The tasks encourage students to apply the concepts they have learned to real-life situations, thus improving their critical and analytical thinking skills. Research shows that students who engage in task-based activities are able to develop problem-solving skills independently, especially if the tasks are designed to encourage exploration and reflection. This is supported by the opinion of Ismail et al., (2023) that systematic and structured assignments have a positive effect on students' material understanding and learning outcomes. However, too high assignment intensity can cause excessive learning burden, reduce motivation, and affect the quality of student work. Therefore, it is important for educators to consider the intensity of assignments to encourage learning skills without causing excessive pressure.

Based on various research results, the learning environment is proven to have a significant influence on student learning outcomes. Aqila et al. (2024) stated that there is a positive correlation between a conducive learning environment and students' academic achievement. This finding is reinforced by Hewistiranda's (2024) report, which shows that the school environment contributes up to 83.4% to the success of student learning outcomes. A supportive learning environment not only increases students' motivation but also their active engagement in the learning process, which ultimately impacts better academic achievement.

A positive learning environment includes good interactions between teachers and students, as well as collaborative relationships between peers

that create a sense of accountability. In addition, access to supporting facilities, such as libraries, laboratories, and learning technology, are also important components that support student success. Collaboration within this learning environment not only increases students' motivation but also encourages them to explore their full potential.

## 5. CONCLUSION

1. Textbook use, assignment intensity, and learning environment have positive and significant effects on student learning outcomes in integrated social studies subjects in Gorontalo City. In contrast, the Internet as a learning resource is negatively correlated to student learning outcomes;
2. This research shows that a combination of quality learning resources, effective assignment frequency, and a supportive learning environment influences the success of the learning process.
3. Teachers and schools should focus on optimizing these elements to improve student learning outcomes.

## DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image generators have been used during writing or editing of this manuscript.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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