


The Impact of Learning Behavior and Student Engagement on Learning Outcomes in Geography Subjects at Junior School Level

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ARTICLE INFO	ABSTRACT
<p>Article History: Received : 2024-07-19 Accepted : 2024-09-18 Published : 2024-09-30</p> <p>Keywords: Learning behavior; Learning outcomes; Student engagement; Geography</p> <p>Corresponding author: Ratih Puspita Dewi Email: rp229@ums.ac.id DOI: 10.37095/jgej.v5i2.26713</p> <p>Copyright © 2024 The Authors</p>  <p>This open access article is distributed under a Creative Commons Attribution-Non Commercial (CC-BY-NC) 4.0 International Licence</p>	<p>Geography is a science that deals with all activities and symptoms found on earth. At the junior high school level, geography is integrated into integrated social studies subjects. Geography is also an important social science to be implemented in lower secondary schools, but in its application there are also factors for its success, including learning behavior and student involvement. The objectives of this research are 1) Analyzing the effect of learning behavior on student geography learning results, 2) Analyzing the effect of student engagement on geography learning results, and 3) Analyzing the effect of learning behavior and student engagement on geography learning outcomes. This research used quantitative method. The population in this study were students from grade 7 to grade 9 at SMP Negeri 2 Kemalang totaling 584 students. The sample in this study consisted of 237 students. The sampling was conducted using the stratified random sampling technique. Data were obtained using observation, documentation, and questionnaires. The data analysis techniques used in this study include descriptive statistic, simple correlation tests, and multiple correlation analysis. The result showed that 1) students have a level of learning behavior in the high category, 2) student learning engagement in geography subjects categorized into high category, and 3) There is no significant influence of learning behavior and student engagement on geography learning success. It can be observed that the r value is smaller than the r table value $0.059 < 0.134$ and the significance value is above 0,05 ($0.416 > 0.05$).</p>
<p>How to cite: Kanapi, B. I. Y., Dewi, R. P., & Tamphu, S. (2024). The Impact of Learning Behavior and Student Engagement on Learning Outcomes in Geography Subjects at Junior School Level. <i>Jambura Geo Education Journal</i>, 5(2), 140–148. https://doi.org/10.37095/jgej.v5i2.26713</p>	

1. Introduction

Geography helps students understand the natural and human environment, as well as important mapping skills (Grobelski, 2023; Dolan et al, 2014). It also broadens their knowledge of global cultures and socio-economic relationships (Lambrinos & Bibou, 2008). Additionally, geography teaches sustainable resource management and disaster awareness (Sharpe & Kelman, 2011). Abidin (2010) states that geography has three main approaches, namely spatial approach, ecological approach, and regional complex approach. The purpose of learning geography in Permendikbud No. 64 of 2013 is to form students' spatial understanding, provide students' skills in searching for data and information, care for the environment and can utilize natural resources wisely, and instill patriotism. Abidin (2010) states that geography has three main approaches, namely spatial approach, ecological approach, and regional complex approach. The purpose of learning geography in Permendikbud No. 64 of 2013 is to form students' spatial understanding, provide students' skills in searching for data and information, care for the environment and can utilize natural resources wisely, and instill patriotism. Geography no longer interpreted as intergrative, covering both physical and human aspects.

Sumaatmadja (2001) states that geography subjects are oriented towards strengthening the scientific insight of the territory of the unitary state of the Republic of Indonesia by prioritizing character building, planning, thinking and acting in a measured manner and understanding God's grace. In the learning process, geography learning outcomes are measured by comparing student learning achievements with predetermined standards, so that an overview can be obtained of the extent of student learning achievement in the subject. Aksa et al., (2019) stated that geography learning integrates critical thinking through all geography material with solving environmental problems around students.

The term learning outcomes consists of two syllables, namely results and learning. The term result is defined as something that has been achieved (Ames & Archer, 1988). Learning outcomes refer to the achievement gained by a person after taking learning activities, while learning is essentially a conscious effort made by a person to meet their needs. Tulus (2004) Learning outcomes refer to the results students achieve when they complete specific tasks or activities. They also represent the mastery of knowledge or skills that

students develop in a subject. These outcomes are typically reflected in test scores or grades, which are assigned by the teacher in numerical form.

According to [Li & Xue \(2023\)](#) good learning behavior also includes the ability to self-regulate, including self-motivation, managing the learning environment, and utilizing available resources effectively. Students who have good learning behavior also have the ability to overcome obstacles that arise during the learning process, such as boredom, discouragement, or personal problems that can affect learning focus and motivation ([Walter & der Vegt, 2012](#)). Therefore, it is essential for students to recognize and cultivate positive learning behaviors to achieve their learning objectives more effectively and efficiently ([Beisly et al, 2019](#)). Self-efficacy plays a crucial role in enhancing an individual's learning capability, manage their actions and evaluate their academic achievement.

Concept of learning behavior and student involvement explains how important factors are in learning success, these two factors become part of learning success if learning behavior and student involvement correlate with student learning outcomes. Learning behavior is based on students' learning habits both in class and at home, the learning behavior carried out by students will have an impact on the school's desired achievements. Student involvement in classroom learning is also a benchmark for maximum learning outcomes so that students' progress can be seen. Student engagement is crucial to student success to have experience in learning so that changes/additions occur knowledge possessed.

Another important factor in learning is student engagement, according to [Fredricks et al \(2004a\)](#); ([Li et al, 2024](#)). Student engagement includes three dimensions: emotional, cognitive, and behavioral engagement. Emotional involvement pertains up to the level of students' good and bad responses to school activities, educator, and peers. In contrast to, cognitive engagement involves the effort students make to fully apply their abilities in understanding complex concepts and mastering challenging skills. Behavioral engagement is characterized by active participation and engagement in academic, social, and extracurricular, requiring effort and proactive behavior. ([Finn & Zimmer, 2012](#)) It is argued that students who lack involvement in the learning process (disengagement) are apt to experience lower academic achievement, greater frustration, and receive negative feedback from teachers.

Students engagement in school pertains to the depth and intensity of a student's psychological state, which includes cognitive, emotional, and behavioral patterns responses to the learning process. This engagement includes educational and social engagements, within and beyond the classroom ([Tan et al, 2010](#)), and is important for achieving greater learning success ([Gunuc & Kuzu, 2015](#)). ([Willms \(2003\)](#)) He mentioned that student engagement includes a psychological dimension, where students feel a connection to their school and embrace its values, along with a behavioral dimension linked to their involvement in school-wide activities ([Kangwa et al, 2024](#)). Common measures of student engagement highlighted in the literature include active participation in school activities, high academic achievement, the time invested in homework, and the overall quality of that homework. Student disengagement at school is typically manifested through withdrawal or lack of attention to school activities, poor academic performance, problematic behavior, and, ultimately, a higher rate of school dropouts ([Pane & Dasopang, 2017](#)). This is supported by research findings from the High School Survey of Student Engagement ([Yazzie-Mintz & McCormick, 2012](#))

Overall, factors that impact learning outcomes can be classified into two groups: internal and external factors, Internal factors encompass aspects such as intelligence, attention, talent, interest, motivation, maturity, readiness, and fatigue ([Murti, 2019](#)). Meanwhile, External factors include the family, school, and community environments. The success of students' learning at school is not only focused on the aspect of learning achievement but also on the aspect of character building and their happiness when they are at school [Nansook Park \(2004\)](#) This study aims to (1) analyzing the effect that learning has behavior on student geography learning outcomes, (2) analyzing the effect of student engagement on geography learning outcomes, and (3) analyzing the effect of learning behavior and student engagement on geography learning outcomes.

Researched a similar topic with the aim of describe the influence of parental involvement, teacher behavior, and good learning motivation on mathematics learning achievement for class taken, variables, and research objects. Previous research discussed the influence of parental involvement, teacher behavior and learning motivation on students' mathematics learning achievement, which is different from this research which discusses the influence of learning behavior and student involvement on geography learning outcomes at SMP Negeri 2 Kemalang.

2. Method

2.1 Research Design

This research uses quantitative methods with the type of correlation research that aims to analyze whether or not there is an influence of learning behavior and student involvement on the success of geography learning. The research was executed at SMP 2 Kemalang, Klaten, regency. The population in this study were students from grade 7 to grade 9 at SMP Negeri 2 Kemalang, which amounted to 584. The method of sampling employed was stratified random sampling, resulting in a study subset of 237 participants. The sample in this study amounted to 237 based on Solvin's calculation with a difficulty level of 5% the number of samples was a combination of grade 7 of 83 students, grade 8 of 79 students, and grade 9 of 75 students.

2.2. Data Collection

Data collection method used documentation and questionnaires. The indicators for student learning behavior are (1) Students' learning ability in classroom, (2) adaptability, (3) Students' understanding of the learning material, and (4) Students' ability to convey the material (Ayuriyanti, 2015) Student engagement can be measured by (1) behavioral engagement, (2) emotional engagement, (3) cognitive engagement, (4) the presence of learning facilities, and (5) the classroom instructional media (Sri Setyowati, 2021).

2.3. Data Analysis

The data then analyze using inferential statistic. Data analysis uses parametric statistics, specifically the product-moment correlation test. In this test, prerequisite analyses such as normality and homogeneity tests are conducted beforehand. If the prerequisites are not met, data analysis uses non-parametric statistical tests. Each variable is classified into three categories: high, medium, and low. The correlation research design was used as research approach. The data then display as tabel and percentages.

3. Results and Discussion

3.1. Results

Geographically, Klaten Regency is located between 110° 26'14" - 110° 48'33" east longitude and 7° 32'19" - 7° 48'33" south latitude. Klaten Regency is a fairly strategic area because Klaten Regency is directly adjacent to the city of Surakarta which is one of the centers of trade and the Special Region of Yogyakarta which is known as a student city and tourism city. Based on its geographical position, Klaten Regency has boundaries North of Boyolali Regency, South of Gunung Kidul Regency, West of Sleman Regency, East of Sukoharjo Regency.

Klaten Regency administratively has 26 sub-districts. How much research this time on Kemalang District. According to the Central Bureau of Statistics (BPS), the Kemalang area has an area of 51.66 square kilometers (km²) which means 7.88 percent of the total area of Klaten which reaches 655.56 km². Kemalang is also the highest sub-district with its position on the slopes of Mount Merapi, which reaches 335.53 meters above sea level (masl). Meanwhile, the distance to the district capital is recorded at 9.22 km measured straight from the sub-district capital to the district capital.

The study employs a combination of primary and secondary data. Gathered primary data through distributing questionnaires and test scores to students in grades 7, 8, and 9 at SMP Negeri 2 Kemalang. The distribution of questionnaires and taking test scores was carried out on September 14, 2023.

The characteristics of respondents were used to identify the distribution of respondents based on gender. The use of this information is expected to provide a clearer picture of the respondent's condition and its relationship to the research problem and objectives. Respondents based on gender are shown in [Table 1](#).

Table 1. Respondent by gender

Gender	Total Percentage	(%)
Male	141	60
Female	96	40

Source: Data Analysis, 2023

Referring to Table 1, it can be concluded that the total number of respondents in this study were 238 people, with the majority being male as many as 141 students, reaching a percentage of 60%. Meanwhile, female respondents totaled 96 students, with a percentage of 40%. This gender data is used to see the opinions of two different genders so that conclusions can be drawn from two different sub-themes, gender determines the results of the research that will take place. The number of respondents by class is presented in Table 2.

Table 2. Respondents by Class

Class	Number	Percentage (%)
Class 7	83	33.9
Class 8	79	33.3
Class 9	75	33.8
Total	238	100

Source: Data Analysis, 2023

Referring to [Table 2](#), it can be concluded that the total number of respondents in this study was 238 people. The details include 83 students from grade 7, with a percentage of 33.9%, 79 students from grade 8, with a percentage of 33.3%, and 75 students from grade 9, with a percentage of 33.8%.

3.1.1. Level of learning behavior towards geography subjects

Measurement of learning behavior variables in geography subjects was conducted through a questionnaire consisting of 11 questions. Details about geography learning behavior at SMP Negeri 2 Kemalang are presented in [Table 3](#).

Table 3. Level of Learning Behavior in Geography Subjects

Assessment	Criteria	F	%
X > 28-44	High	228	97,8
X > 14-28	Medium	10	2,2
X < 14	Low	-	-
Avarage		2,74	91,3
Total		238	100
Criteria	High		

Source : Data Analysis, 2023

Referring to [Table 3](#), it is evident that the average score of learning behavior levels in Geography subjects is mostly classified within the high criteria, with a total of 228 student(97.8%). Meanwhile, the level of learning behavior with low criteria amounts to 10 students (2.2%). These results indicate that students at SMP Negeri 2 Kemalang have a high level of learningbehavior. The level of learning behavior on each indicator it is evident that [Table 4](#).

Table 4. Level of Learning Behavior on Every Indicator

Criteria	Indicator 1		Indicator 2		Indicator 3		Indicator 4		Indicator 5	
	F	%	F	%	F	%	F	%	F	%
Low	16	6	14	4,6	8	4	23	11,5	29	14,5
Medium	88	39	74	24,6	51	21,5	73	36,5	66	33
High	134	59,1	150	71,6	179	85,5	140	52	143	52,5
Amount	238	100	238	100	238	100	238	100	238	100
Avarage	200	40	2,90	58	2,95	59	2,91	58,2	2,91	58,2
Criteria	High		High		High		High		High	
Total	85									

Source: Data Analysis, 2023

Referring to [Table 4](#), it is known that the distribution of learning behavior levels in Geography subjects based on each indicator has the same average. In indicator (1), namely the ability of studentin class learning has high criteria with a percentage of 59.1%. Indicator (2), namely the ability of students to adapt, has high criteria with a percentage of 71.6%. Furthermore, indicator (3), namely theability of student to understand the material, has high criteria with a percentage of 85.5%. Furthermore, indicator (4), namely of ability the student to convey material has high criteria with a percentage of 52%. Then the last indicator (5), namely the ability of student toface exams, has high criteria with a percentage of 52.5%.

3.1.2. The Impact of learning behavior on the success of geography learning

Measurement of the variable influence of learning behavior on learning success using product moment correlation statistical test. Details about the effect of learning behavior on geography learning success at SMP Negeri 2 Kemalang can be found in [Table 5](#).

Table 5. The Impact of Learning Behavior on Geography Learning Success at SMP Negeri 2 Kemalang

Hypotesis	r count	r table	Sig
Effect of Learning Behavior on Geography Learning Success	-0,055	0,134	0,401

Source: Data Analysis, 2023

Referring to Table 5. It is known that for the hypothesis of learning behavior on geography learning success, the value of r is smaller than r table ($-0.055 < 0.134$) and the significance value is $0.401 > 0.05$. Referring to the decision-making criteria, the non-hypothesis (H_0) is accepted. This means that there is no significant influence between learning behavior on geography learning success at SMP Negeri 2 Kemalang.

3.1.3. Level Student Engagement in Geography Subjects

The variable level of student engagement in geography subjects is measured through 18 questions in the question. Details about the level of student engagement in geography subjects at SMP Negeri 2 Kemalang can be seen in [Table 6](#).

Table 6. Student Engagement in Geography Subjects

Assessment	Criteria	F	%
X > 48-72	High	212	93,2
X > 24-48	Medium	26	7,8
X < 24	Low	-	-
Avarage		2,93	97,6
Total		238	100
Criteria		High	

Source: Data Analysis, 2023

Referring to [Table 6](#), it can be concluded that the average score of the level of student engagement in geography subjects is mostly included in the high criteria, with a total of 212 students (93.2%). Meanwhile, the level of student engagement with low criteria amounted to 26 students (7.8%). These results indicate that students at SMP Negeri 2 Kemalang have a high level of engagement in geography subjects. The level of student engagement in each indicator can be seen in [Table 7](#).

Table 7. Level of Student Involvement in Each Indicator

Criteria	Indicator 1		Indicator 2		Indicator 3		Indicator 4		Indicator 5	
	F	%	F	%	F	%	F	%	F	%
Low	11	3,6	14	0	6	1,5	17	8,5	9	3
Medium	85	42,5	74	43,5	94	44,5	57	25,5	95	34,3
High	141	53,9	150	56,5	134	54	164	76	124	65,3
Amount	238	100	238	100	238	100	238	100	238	100
Avarage	2,91	58,2	2,93	58,6	2,94	58,8	2,95	59	2,93	58,6
Criteria	High		High		High		High		High	
Total	85									

Source: Data Analysis, 2023

Referring to [Table 7](#). It is known that the level of student engagement in geography subjects based on each indicator has the same average score. In indicator (1) behavioral engagement, it has high criteria with a percentage of 53.9%. In indicator (2), emotional engagement has high criteria with a percentage of 56.5%. In indicator (3), namely cognitive engagement has high criteria with a percentage of 54%. Furthermore, indicator (4), namely facilities from teachers, has high criteria with a percentage of 76%. Then the last indicator (5), namely the use of media, has high criteria with a percentage of 65.3%.

3.1.4. The Impact of Student Engagement on Geography Learning Success

The influence of student Engagement on geography learning success was measured using the product moment correlation statistical test. Details about the effect of student involvement on the success of geography learning at SMP Negeri 2 Kemalang can be seen in [Table 8](#).

Table 8. the effect of student engagement on learning success

Hypotesis	r count	r table	Sig
Effect of Student Engagement on Geography Learning Success	-,026	0,134	0,690

Source: Data Analysis, 2023

Referring to [Table 8](#), for the hypothesis regarding student involvement and geography learning success, the calculated r value is smaller than the r table value ($-0.026 < 0.134$), and the significance value is $0.690 > 0.05$. According to the decision-making criteria, the null hypothesis (H_0) is accepted. This indicates that there is no significant influence of learning behavior and student involvement on the success of geography learning at SMP Negeri 2 Kemalang.

3.1.5. The Impact of learning behavior and student engagement on the success of geography

This research uses Multiple Hypothesis Test. The basis for decision making uses the comparison of the calculated r value with the r table at the 5% significance level. If $r_{\text{count}} > r_{\text{table}}$, then the null hypothesis (H_0) is rejected. Conversely, if $r_{\text{count}} < r_{\text{table}}$, then the null hypothesis is accepted. In addition, decision making can also be seen from the significance value. If the significance value < 0.05 then the null hypothesis (H_0) is rejected, if the significance value > 0.05 then the null hypothesis (H_0) is accepted. A summary of the results of the multiple correlation between learning behavior and student engagement on geography learning success can be found in [Table 9](#).

Table 9. Results of Multiple Correlation between Learning Behavior and Student Engagement on Geography Learning Success.

R count	R table	Sig	R
0,059	0,134	0,416	0,004

Source: Data Analysis, 2023

Referring to [Table 9](#), for the hypothesis concerning learning behavior and student involvement on geography learning success, the r value is smaller than the r table value ($0.059 < 0.134$), and the significance value is $0.416 > 0.05$. According to the decision-making criteria, the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_a) is rejected. This demonstrates the absence of significant influence of learning behavior and student involvement on the success of geography learning at SMP Negeri 2 Kemalang.

3.1 Discussion

The result showed that, there is no significant positive impact of learning behavior on the success of geography learning of SMP Negeri 2 Kemalang students. It can be seen from r count smaller than r table ($-0.055 < 0.134$) and significant value greater than 0.05 ($0.401 > 0.05$). Then from the analysis of the level of learning behavior has high criteria, but from the result of the study of the level of geography learning results instudents has moderate criteria.

Learning behavior does not affect student learning success, this is because there is no significance between learning behavior and learning success. This is not in line with the research belonging to ([Daud & Lidi, 2020](#)); ([Kalule et al, 2019](#)). This could be due to several factors, including the possibility that the questions asked by the researcher were not well understood by the students because the language used was too high. In addition, students may not have filled out the questionnaire seriously, or perhaps teachers rarely implement behaviors that should be applied in the learning process ([Daud & Lidi, 2020](#))

Referring to the findings from data analysis, it was found that there is no significant positive influence of student engagement on the success of geography learning at SMP Negeri 2 Kemalang. This is evidenced by the r value being smaller than the r table value ($-0.026 < 0.134$) and the significance value being greater than 0.05 ($0.690 > 0.05$). Despite this, the level of student engagement has high criteria. student engagement has multiple dimensions constuct including three: emotional engagement, behavioral engagement and cognitive engagement. These dimensions are considered crucial in fostering a sense of connection between students and their educational institution (whether school or class) and in influencing students' willingness to learn ([Anyaegbunam et al, 2021](#)). Student engagement can be understood as the connection involving time, energy, and other resources that student and institutions invest to better the student experience. This engagement not only enhances the students' educational journey but also contributes to the development of the institution's performance and reputation ([Dharmayana et al., 2012](#)) However, this study shows that there is no effect of student involvement no student learning success, so it is possible that student success is influenced by other factors.

Based on the analysis, it was found that there is no that there is no significant influence of learning behavior and student involvement on the success of geography learning at SMP Negeri 2 Kemalang. This is evident from the r value being smaller than the r table value ($0.059 < 0.134$) and the significance value exceeding 0.05 ($0.416 > 0.05$). Additionally, the results indicate that the level of learning success falls within moderate criteria. Appleton et al. (2008) It states that learning behavior and student involvement are often referred to as learning

habits—patterns of behavior that individuals repeat until they become automatic or spontaneous. With good learning habits, students can enhance their academic achievement. This is commensurate with the statement of (Lahir et al., 2017); (Deng and Tsacle, 2005). It states that positive learning behavior helps students build strong relationships with teachers and peers (McInness et al, 2013). However, if a student is unable to demonstrate positive behavior, they may face difficulties in their learning process.

(Ali Sadikin et al., 2016) states that success is a form of the final formulation provided by the teacher related to the ability or achievement of student learning at a certain time. Sugihartono (2013) learning is described as the process of acquiring knowledge and experience, resulting in relatively permanent or stable changes in behavior and interaction abilities due to an individual's interaction with the environment. The term "student success in school" refers to the academic achievement of students as they progress through the teaching and learning process at school. This research found that learning behavior and student involvement did not influence student learning success, this raises ambiguous questions because these two factors look like learning success factors.

4. Conclusion

Referring to the result of the analysis, the following conclusions can be drawn: (1) there is no significant influence between learning behavior on student learning success at SMP Negeri 2 Kemalang. From the results of simple regression analysis, the value of r count is less than the r table value ($-0.055 < 0.134$) and the significance value is higher than 0.05 ($0.401 > 0.05$). (2) There is no significant influence between student involvement on student learning success at SMP Negeri 2 Kemalang. It is evident from the value of r being less than the r table value ($-0.026 < 0.134$) and the significance value is higher than 0.05 ($0.690 > 0.05$). (3) The effect of learning behavior and student involvement on student geography learning outcomes at SMP Negeri 2 Kemalang through the results of multiple correlation analysis obtained r value smaller than r table ($0.059 < 0.134$) and a value of significance is higher than 0.05 ($0.416 > 0.05$). This shows that there is no substantial impact of learning behavior and student engagement on learning success. It is hoped that future researchers will be able to add to the shortcomings in this research, so that this research can be useful for further research. The process that occurs in successful learning also has many factors, it cannot be concluded that students are not successful in learning based on these two factors. This also becomes a reference for future researchers to look at the many factors that might be a factor in learning success. So it can be concluded that some factors that appear to be factors in learning success may not necessarily be factors in learning success.

5. Acknowledgments

The author would like to thank SMP Negeri 1 Kemalang for giving permission as a research location, supervisors who have provided assistance in research and friends who provide support to the author to complete and in the implementation of research.

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