

Factors affecting literature learning behavior of secondary high school students: Evidence in Vietnam**Nguyen Van Tung^{a*} and Le Thi Thuy Ly^b**^a*Hanoi Pedagogical University 2, Vietnam*^b*Institute of Cultural Studies, Vietnam Academy of Social Sciences, Vietnam***CHRONICLE***Article history:*

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*Keywords:**Behavior**Literature**Secondary School**Students**Vietnam***ABSTRACT**

The study identified factors affecting the behavior of literature learning of secondary high school students in Vietnam. To achieve this goal, in this study we surveyed 300 students currently studying at two secondary schools in Son La province and Hanoi city of Vietnam. The analysis of multivariate linear regression models showed that 5 out of 12 factors had a strong influence on literature learning behavior of secondary high school students, including (i) Gender, (ii) Learning motivation, (iii) Student living place, (iv) Academic performance, (v) Teacher's teaching method. On this basis, the study proposes several positive solutions to improve the efficiency of the literature learning of secondary high school students in the future.

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1. Introduction

In Vietnam, the introduction of literature to teaching and learning at all levels, including lower secondary education, has contributed to the creation and development of students with beautiful qualities such as patriotism, being kind, hard-working, honest and responsible, and at the same time fostering the soul and developing student's personality. This is done through activities of discovering and receiving verbal texts, especially literary texts, along with listening, speaking, and practicing activities to create common types of texts. On the other hand, it helps students be proud of their national history and national literature, have dreams and aspirations, have a spirit of self-study and self-respect, be aware of citizenship, and respect the law. Besides, it helps students continue to develop the common and specific competencies established at the elementary school level with requirements that need to be higher than both language and literary competencies. Notably, the teaching and learning of literature help secondary high school students develop general competencies such as self-reliance and self-study, communication and collaboration, problem-solving, and creativity. In particular, the literature program helps students develop linguistic and literary competencies through the basic system of general knowledge. Currently, society is constantly moving and knowledge of mankind is growing very fast, so the school needs to update knowledge, keep up with the changes in life. The curriculum of literature must ensure that the core academic background, at the same time, is flexible enough to be adaptable to changes in reality. A fact shows that today a significant proportion of secondary high school students have the phenomenon of boring learning literature. So, what is the reason why these students are not interested in learning literature, namely, what objective and subjective factors have affected the study of literature for students in secondary high school? Based on the above issues, we find that it is necessary to research and find out the factors that influence the behavior of literature learning of secondary high school students, providing useful information for education authority to be able to offer specific methods and policies to create interest for students and make students study this subject better and better.

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2. Literature Review and hypothesis development

Across the world, research by Blazar David has shown that teachers have a significant impact on the quality of student learning in accessing the subject. The impacts are expressed through students' attitudes and learning behaviors in acquiring knowledge learned in the classroom (David, 2016; Miller, 2008; Maulana, 2013). On the other hand, students' skills and competencies have a positive impact on learners' behavior - students who work hard, take initiative, spend time in learning will have higher results than students who are not active in learning (Latu, 1994; Shinn, 1997; Dullas, 2018; Wassmer, 2013). Teachers' teaching skills also impact and greatly influence students' learning behavior through classroom lectures (Michalsky & Schechter, 2013; Anh, 2013). The condition of facilities, equipment, libraries in schools are also important factors promoting students' learning behavior. When facilities are guaranteed and meet the learners' needs, it creates excitement and encourages a better learning process (Francis, 2017). Fukumura (2013) pointed out that gender could be also an important factor that directly affects student learning behavior, in which female students often tend to study social science subjects, which have a higher linguistic nature than that of male students. Male and female students' thinking varies in style and approach to learning, so learning behaviors are also different by gender (Wehrwein, 2007). Some studies show that students who are born in a better-off family environment will have higher academic qualifications than students born in disadvantaged families (Rabiner, 2016).

In Vietnam, a number of studies have shown that competition in learning has a positive effect on students' learning behaviors, and on the other hand, learning methods, motivation, teaching methods and facilities also have great influences on student learning behavior (Dinh Thi Hoa, 2018; Nguyen Van Loi, 2014). Factors such as personality, self-awareness, a sense of self-worth, ability to care for parents, career orientation of a family, motivation friendships are also the basic factors affecting student learning behavior in learning (Chau, 2018). Through published research work in and out of the country related to the research, we have identified factors that affect the behavior of Literature learning of secondary high school students including the following hypothesis:

Hypothesis 1: Literature learning behavior of secondary high school students is influenced by gender, learning motivation, living conditions of students, academic performance, teaching methods of teachers, people ethnicity, place of residence of the students, ranking of conduct in the year, school facilities, career orientation of the family, the capacity of the students, etc.

Hypothesis 2: Students will have more positive learning behavior through teachers' teaching methods and their efforts.

3. Research Methods

3.1. Model research

The data is processed and analyzed by SPSS software, the average, percentage and frequency are used to analyze the factors affecting the learning behavior of literature of secondary students. The impact factors were determined through the Binary Logistic regression model, Cronbach Mart Alpha to correlate analysis. The regression model is shown as follows:

$$\ln [p(x)/1-p(x)] = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \varepsilon,$$

where the dependent variable $p(x)$ is the literature learning behavior of the secondary high school students, receiving values 0 and 1 (0 = influential and 1 = no effect). $\beta_0, \beta_1, \dots, \beta_n$ represent the regression coefficients to be estimated where β_0 is the intercept. ε : is the error measuring the impact of variables not included in the model. X_1, \dots, X_n are the independent variables included in the model, explained in turn in Table 1.

Table 1

Interpret independent variables in the model of multivariate feedback

Xj	Variable name	Explain	Expected
X1	Gender	Male = 1 (control variable), Female = 2	(+)
X2	Living conditions of students	Poor = 1 (control variable), Middle = 2 (control variable), Wealthier = 3	(+/-)
X3	Academic performance	Excellent = 1, Good = 2, Fair = 3, Medium = 4 (control variable), Weak = 5 (control variable), Poor = 6 (control variable)	(+)
X4	Ethnic	Kinh = 1, Thai = 2 (control variable), H'Mông = 3 (control variable)	(+/-)
X5	Student living place	Rural = 1, Urban = 2 (control variable)	(+)
X6	Classification of conduct in the year	Good = 1, Fair = 2, Moderate = 3 (control variable), Weak = 4 (control variable)	(+)
X7	Grade	Class 6 = 1 (control variable), Class 7 = 2, Class 8 = 3, Class 9 = 4	(+/-)
X8	School	To Hoang Secondary School (Hanoi) = 1, Moc Ly Secondary School (Son La) = 2 (control variable)	(+/-)
X9	Teaching methods of teachers	Yes = 1, No = 2 (control variable)	(+)
X10	Learning Motivation	Yes = 1, No = 2 (control variable)	(+)
X11	Conditions of school facilities	Yes = 1, No = 2 (control variable)	(+/-)
X12	Career orientation of the family	Yes = 1, 2 = No (control variable)	(+)

(Source: The survey data of the study)

3.2. Sampling method

To achieve the research purpose, 300 representative samples, corresponding to 300 secondary high school students studying at two schools in Son La province and Hanoi city were interviewed. When analyzing the elements and registering the binary logit,

the sample scale must be multiplied at least 5 times the number of questions. The study was designed with a total of 31 questions, corresponding to a sample size of at least 155. However, to avoid the fact that the selected sample rejected the answer, the author took 145 additional backup samples from the same sampling list. On the other hand, the research content also serves many other research contents, so the authors surveyed all 300 students at two secondary schools in the household surveyed on locality. The sample number was deliberately selected based on gender structure, grade, living conditions, place of residence, academic performance, and student conduct.

3.3. Data collection methods

(i) In-depth interviews, 30 cases including 10 cases for Literature teachers, 15 cases for secondary high school students, 5 cases for managers at two schools to collect ideas affecting the behavior of Literature learning of secondary high school students were used.

(ii) After data collection, SPSS 22.0 was used to analyze the factors affecting the learning behavior of middle school students in Literature. In particular, Cronbach Mart Alpha is used to evaluate the reliability of variables; Explore factor analysis (EFA) to find the factors that strongly impact on the model, Viance variance inflation factor and Tolerance are used to test the validity of the research model.

4. Results and Discussion

4.1. Sample description statistics

In the study, we have used identifier scales to evaluate the dependent variables explained in the multivariate regression model. The scales are calculated as averages between levels. The analysis results show that the dependent variables all meet the criteria when included in the model, with the average value greater than 1/2 of the original coefficient.

Table 2
Statistics describe independent variables in the regression model

Variable name	Description	Mean	Min	Max	Std. Deviation	Conclude
X1	Gender	1.82	1	2	.762	accept
X2	Living conditions of students	2.12	1	3	.622	accept
X3	Academic performance	4.25	1	6	.723	accept
X4	Ethnic	2.19	1	3	.714	accept
X5	Student living place	1.73	1	2	.814	accept
X6	Classification of conduct in the year	3.33	1	4	.782	accept
X7	Grade	2.63	1	4	.716	accept
X8	School	1.53	1	2	.724	accept
X9	Teaching methods of teachers	1.88	1	2	.798	accept
X10	Learning Motivation	1.79	1	2	.784	accept
X11	Conditions of school facilities	1.52	1	2	.675	accept
X12	Career orientation of the family	1.54	1	2	.682	accept

(Source: The survey data of the study)

4.2. Testing Cronbach's Alpha

The factors that influence the learning behavior of secondary high school students are measured using Cronbach's Alpha with a coefficient of 0.801. No Cronbach's Alpha if item deleted exceeds so it meets the reliability requirement.

Table 3
Results of Cronbach's Alpha Testing of Attributes

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
X1	18.65	2.849	.402	.762
X2	18.64	2.705	.458	.744
X3	17.56	2.253	.413	.746
X4	18.12	2.042	.364	.636
X5	18.62	2.871	.493	.764
X6	16.97	5.468	.439	.773
X7	18.81	6.217	.423	.707
X8	18.82	6.440	.493	.725
X9	18.90	6.696	.499	.735
X10	18.77	7.000	.404	.782
X11	18.76	6.578	.419	.752
X12	18.81	7.017	.305	.695

(Source: The survey data of the study)

The results in Table 3 show that the attributes of the dependent variables have an Alpha coefficient of Cronbach's greater than 0.6 and smaller than the general Alpha coefficient of Cronbach; the correlation coefficients of all the attributes are greater than 0.3, so all the properties of the dependent variables are statistically significant (Truong, 2020).

4.3. Exploratory Factor Analysis (EFA)

The author conducted exploratory factor analysis (EFA), Varimax analysis of 12 observed independent variables. As can be seen in Table 4, the result of the EFA is $0.5 < \text{KMO} = 0.621 < 1$. $\text{Sig.} = 0.000 < 0.05$, which means that all variables are related to each other.

Table 4
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.521
Bartlett's Test of Sphericity	Approx. Chi-Square Df Sig.
	72,422 34 0,000

(Source: The survey data of the study)

Results of the KMO and Bartlett's Test tables show that the variables all reach values greater than 0.5, proving that the factor analysis of the research data is appropriate. Through the EFA model, some factors that have greatly influenced the learning behavior of lower secondary school students' literacy are identified: gender, motivation, place of study. students, academic performance ratings, teaching methods of teachers.

Table 5
Rotated Component Matrix

	Component				
	1	2	3	4	5
X1b	.858				
X1a	.821				
X3a		.701			
X3b		.574			
X5a			.532		
X5b			.464		
X9a				.689	
X9b				.600	
X10a					.594
X10b					.577

4.4. Analysis of factors affecting the learning behavior of Literature of secondary high school students in Vietnam

One of the necessary conditions for the analysis of the next steps of multivariate regression is that the independent variable must be correlated with the dependent variable, if not correlated, this type of independent variable is out of the regression analysis. Therefore, before performing a regression analysis, the author checked Pearson's correlation coefficient to check the linear relationship between the independent and dependent variables.

Table 6
The results of correlation between different variables

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	p(x)
X1	1	.046	.070	.001	.021	.090	.086	.027	.002	-.025	.034	.006	.000
		.428	.226	.990	.719	.122	.136	.645	.976	.664	.556	.911	.115
X2	.046	1	.026	.000	.027	.122	.189	.537	.077	-.135*	.104	.064	.001
	.428		.649	.995	.640	.035	.001	.000	.185	.020	.072	.269	.984
X3	.070	-.026	1	.058	-.053	.087	.042	.132	-.007	-.054	.002	.133	.000
	.226	.649		.321	.356	.131	.472	.022	.897	.353	.969	.021	.164
X4	.001	.000	.058	1	-.097	.011	.029	.024	.049	.025	.045	.078	.003
	.990	.995	.321		.095	.847	.620	.678	.395	.663	.438	.177	.533
X5	.021	.027	.053	.097	1	.036	.180	.016	.042	.048	.209	.168	.000
	.719	.640	.356	.095		.537	.002	.780	.474	.409	.000	.003	.249
X6	.090	.122*	.087	.011	-.036	1	.227	.131	.089	.023	.156	.020	.004
	.122	.035	.131	.847	.537		.000	.023	.123	.692	.007	.731	.201
X7	.086	.189**	.042	.029	.180**	.227	1	.048	.149**	-.071	.126	.091	.002
	.136	.001	.472	.620	.002	.000		.405	.010	.220	.029	.114	.043
X8	.027	.537**	.132	.024	-.016	.131	.048	1	.221**	-.081	.149	.030	.005
	.645	.000	.022	.678	.780	.023	.405		.000	.162	.010	.603	.868
X9	-.002	.077	.007	.049	.042	.089	.149	.221	1	.023	.026	.150	.000
	.976	.185	.897	.395	.474	.123	.010	.000		.689	.652	.009	.539
X10	-.025	-.135*	.054	.025	.048	.023	.071	.081	.023	1	.157	.082	.000
	.664	.020	.353	.663	.409	.692	.220	.162	.689		.006	.155	.261
X11	.034	-.104	.002	.045	.209**	.156	.126	.149	.026	.157**	1	.044	.004
	.556	.072	.969	.438	.000	.007	.029	.010	.652	.006		.450	.597
X12	-.006	-.064	.133	.078	.168**	.020	.091	-.030	.150**	.082	.044	1	.003
	.911	.269	.021	.177	.003	.731	.114	.603	.009	.155	.450		.690
p(x)	.000	.001	.000	.003	.000	.004	.002	.005	.000	.004	.000	.003	1
	.115	.984	.164	.533	.249	.201	.043	.868	.539	.261	.597	.690	

(Statistical significance level: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$)

The analysis results show that the VIF of 12 independent variables included in the model are much smaller than 10. Therefore, there is no phenomenon of collinearity in the model, so the model has statistical significance.

Table 7
Multicollinearity test results

Coefficients	t	Collinearity Statistics	
		Tolerance	VIF
(Constant)	1.209	-	-
X1	-1.026	.955	1.019
X2	.042	.877	1.518
X3	-1.532	.978	1.073
X4	-.261	.823	1.027
X5	1.653	.913	1.119
X6	-1089	.917	1.127
X7	.890	.923	1.179
X8	.191	.915	1.566
X9	.527	.977	1.113
X10	.890	.979	1.059
X11	.534	.812	1.143
X12	.076	.816	1.092

With the collected data, the author used the Binary Logistic regression model to analyze the correlation between the independent and dependent variables. Table 8 presents the results for binary logistic regression as follows:

Table 8
Results for the binary logistic regression model

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
X1	0.592	.674	.002	1	.000	.817
X2	0.213	.556	1.535	1	.004	1.022
X3	1.389	.618	.578	1	.000	.536
X4	0.455	.554	5.124	1	.002	.821
X5	1.125	.679	1.654	1	.000	1.476
X6	0.272	.533	.923	1	.007	.677
X7	0.389	.614	.518	1	.003	.954
X8	0.217	.674	5.180	1	.002	.856
X9	1.233	.623	0.945	1	.000	1.521
X10	0.978	.675	1.289	1	.000	1.276
X11	0.226	.521	.622	1	.003	.823
X12	0.622	.525	0.978	1	.009	.955
Constant	1.524	1.354	.002	1	.000	.572

(Statistical significance level: * $p < 0,1$ ** $p < 0,05$ *** $p < 0,01$)

$N=300$, Prob> Chi² = 0.001 Loglikelihood = 15,423 Pseudo R² = 29,0%

(Source: The survey data of the study)

Table 8 presents the results of the logistic regression model with the dependent variable which is the learning behavior of secondary high school students affected by objective and subjective factors. The model has statistical significance with $p < 0.05$, $R^2 = 29.0\%$ said the independent variables in the model can explain 29.0% of the change of the dependent variable according to the variation of the independent variable in the model. The significance level is $p < 0.05$ in all independent variables, showing that the model has a high significance for the statistical level. With this result, the logistic regression model is written as:

$$\ln [p(x)/1-p(x)] = 1.524 + 0.592 \times X1 + 0.213 \times X2 + 1.389 \times X3 + 0.455 \times X4 + 1.125 \times X5 + -0.272 \times X6 + 0.389 \times X7 + 0.217 \times X8 + 1.233 \times X9 + 0.978 \times X10 + 0.226 \times X11 + 0.622 \times X12.$$

The variables of great value are explained as follows: There is a gender difference in the behavior of learning Literature, whereby female students are more active in learning Literature than male students if the effects of other factors in the model is constant. The above difference is statistically significant $p < 0.05$ corresponding to 99% of confidence interval (OR = 0.592, 99%, CI = 1.54-2.79). Thus, learning behavior in Literature is influenced by gender. Students who have good and excellent academic performance or better have 1,389 times better behavior in learning Literature than students with average academic performance or lower, if the effects of other factors in the model remain unchanged. The above difference is statistically significant with $p < 0.05$ with 99% confidence interval (OR = 1,389, 99%, CI = 2.12-7.53). Similarly, students living in urban areas were more than 1,125 times more proactive in learning Literature than rural students if the effects of other factors in the model were constant. The above difference is statistically significant with $p < 0.05$ with 99% confidence interval (OR = 1,125, 99%, CI = 1,67-5,24). Teacher's methods of teaching and student's motivation have a great impact on learning behavior in Literature, with standard deviations of 1,233 and 0.978, respectively. The above difference is statistically significant $p < 0.05$ corresponding to 99% of confidence interval (OR = 1,233, 99%, CI = 6.58-13,24); (OR = 0.978, 99%, CI = 4.92-5.29). Thus, the acts of learning Literature of secondary high school students are influenced by many objective and subjective factors.

5. Conclusions and recommendations

Based on the regression results, we make some conclusions and recommendations to contribute to improving the efficiency of Literature learning of secondary high school students on the better in the following time:

The estimation results have shown that factors such as gender, motivation, student's place of residence, academic rank, and teaching method of teachers influence the literacy behavior of secondary school students. The results also have shown that the motivation of the students, as well as the teaching methods of teachers, positively contribute to the students' literary behavior. From the research results, we propose some recommendations to improve the efficiency of Literature learning of secondary high school students as follows: (i) Classify students at the beginning of the school year (excellent students, average students, weak students) with appropriate teaching methods for each student's learning force; (ii) Teachers apply positive teaching methods, promote students' creativity and initiative, innovate ways to test and assess students' learning results regularly, to improve their effectiveness. subject acquisition results; (iii) Conduct regular two-way information exchange between home and school. Notify in detail the learning situation of students in the class, as well as children who have studied at home; (iv) Assign each student to study better with mentoring weak classmates, assess students' progress over weeks, months, terms and years; (v) Teachers must always make the lesson a fun, relaxed, exciting atmosphere, stimulating students to absorb lessons. Design clear scientific lectures and apply flexible teaching methods.

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