Parents' Struggles and Students' Learning Motivation: A Search for Connection

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Abstract
This study aimed to determine the relationship between Parents' Struggles and Students' Learning Motivation. The Theory of Parental Involvement and the Theory of Expectations of Motivation is the basis of this research. This research is a non-experimental study that explores the relationship between parents' struggles and students' learning motivation in college. The research method used in this study is the correlational method. Participants involved 389 students selected to complete a survey online to accommodate the recent transition to online learning. The bivariate correlation analysis results show a relationship (p) between the two variables, with a significance value of 0.01 and the strength of the relationship (r) at 0.60. It can be interpreted that the more struggles experienced by parents, the higher the student's learning motivation. Thus, the null hypothesis in this study was rejected. This study is an initial investigation on the topic, and further research is needed.

Keywords: Correlational Study; Parents' Struggles; Students' Learning Motivation

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INTRODUCTION

Student's learning is mainly entrenched in institutional arrangement such as schools, universities, curriculum or policies. Their learning behaviors or results are sometimes influenced by these institutions settings. Occasionally, however, students' learning can be also shaped by different aspects of the family backgrounds as well. Parents, siblings, and friends, for instance, have an immense impact on shaping students into who they emerge as individuals later on in their lives. Many factors, such as family hardships, parental involvements, and along with their relationships with those individuals mentioned above can have permanent ramifications on their academic journey.

Research has shown that family and school have a strong connection in forging certain learning behaviors, for instance (Bray, A., Banks, J., Devitt, A., & Ní Chorcora, 2021; Sanders, J. E., Mishna, F., McCready, L., & Fallon, 2021). In line with that, research also suggests that family background can also influence many of students' psychological aspects of reading ranging from self-concept or interest to motivation (Khoiriyah et al., 2021; Lase et al., 2021).

Students' learning motivation holds the explanations to their learning performance and success in where the state of students' motivation can either advance or hinder their learning attitudes (Adara, R. A., & Najmudin, 2020; Aikina, T., & Bolsunovskaya, 2020; Albalawi, F. H., & Al-Hoorie, 2021). The impact of the learning motivation has consistently shown positive results to their learning success (Abdelrahman, 2020; Barton, B. A., Adams, K. S., Browne, B. L., & Arrastia-Chisholm, 2021; Gordeeva, T. O., Sychev, O. A., & Semenov, 2020; Özhan, Ş. Ç., & Kocadere, 2020; Wilson, N., & Stupnisky, 2021). From these findings, it is fair to say that students' learning motivation boosting program should be a priority. However, lifting students' motivation is not straight forward nor easy task as there are many factors affecting students learning from different parts of their life, academic, social, or even family. This is the importance of this study lies. Despite the significance of the family aspects to students' learning, most studies only focus on investigating the motivation as it plays out in school settings. This study looks at this issue as it is influenced by the family aspect such as parents struggles in supporting their children's education.

This study aims to enhance our understanding of the implications of students' learning motivation modification efforts by taking into accounts all variables from the family contexts, especially from the parents' struggles in supporting their children's education. This study will be especially contributive to diverse educational stakeholders such as future researchers, practitioners, policymakers or special populations like, teachers, parents and policy makers. The outcomes of this study can be used to help these parties establish better informed or reformed teaching policies or practices where familial involvements in children's schooling is taken impartially and proportionately.

In respect to the inquiries in this study, this research seeks to answer the following question: (1) Is there a significant relationship between parents' struggles and students' learning motivation variables in higher education? (2) What is the strength of the relationship between parents' struggles and students' learning motivation? (3) What is the direction of the relationship between parents' struggles and students' learning motivation?

The hypothesis to be tested are: (1) The Null Hypothesis for this study is (H0): There is no significant relationship between parents' struggles and students' learning motivation in higher education. (2) The Alternative Hypothesis of the study is (Ha): There is a significant relationship between parents' struggles and students' learning motivation in higher education.

The purpose of this research is to see if a relationship between parents' struggles and students' learning motivation exists as well as to see the strength of the relationship between parents' struggles and students' learning motivation if the relationship does exist Also, the direction of the relationship between parents' struggles and students' learning motivation will examined.

METHOD

Design

This study uses a correlational method in pursuing its findings. The correlational research is a study method that aims to determine the relationship between variables or more, without any attempt to influence the variables (Cozby, 2012; McMillan, J. H., & Schumacher, 2006). This study was conducted at IAIN Padangsidimpuan in the academic year of 2020/2021. The two variables examined are parents' struggles as the predictor variable and students' learning motivation as the criterion variable. Parents' struggles refers to the challenges parents experience in gaining access to education in their youth and its effect on their current financial stability in supporting theid children education in higher education measured by a questionnaire developed for this study. Students' learning motivation refers to the internal and external drives that gives the students capacity to study competently measured by students' GPA.

Participants

There are 389 students participated in this study whom are recruited from a pool of 8358 students currently enrolled at IAIN Padangsidimpuan,one of the local university in Padangsidimpuan, a district in North Sumatra Utara, Indonesia. The participants involved are currently of different year and program of study and mostly are full-time undergraduate and graduate students taking 20-22 credits. The researcher used random sampling method to collect the data by using the Yamane's formula as follows (Adam, 2020):

$$n = \frac{N}{1 + N\,(e2)}$$

n = the sample size
N = the size of the population
e = the level of precision (±5% precision) with the assumption of 95% confidence level.

According to the above formula, the sample size for this study is thus:

$$n = \frac{8538}{1 + 8538\,(0{,}05\ x\ 0{,}05)}$$

$$n = \frac{8538}{8539\,(0{,}025)}$$

$$n = \frac{8538}{21{,}3475}$$

$$n = 388{,}090$$

This number is then rounded to 389 for clarity reason.

Instrument

This study utilized a self-reported questionnaire in the process of its data collection. This instrument is students' learning motivation questionnaire. All items are formulated in respect to parents' struggles either in the aspects of their education struggles and their financial struggles in supporting their children education. While there have been numerous motivation questionnaires from other studies on students' learning motivation, an instrument that is measuring students' motivation in regards to their parents' struggles is not available. Thus, the researcher decided to develop one to accommodate the settings and the contexts of the research.

This study relies on a close-ended questionnaire in its data collection. This questionnaire consisted of 10 items with 5 Likert-scales ranging from strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree. The questionnaire itself is specifically developed for the purpose of this investigation since there has been no simillar or at least relevant questionnaire that accomodates the objectives of this study available so far. The other reason is because a questionnaire distributed and answered online deemed to be health protocol-friendlier which is one of the top priority in this study for the safety of both the reseracher and the participants of the study as well all parties involved.

In the validity aspet of the isntrument, a CVI assessment was condcuted where the average item-level content validity index obtained is 0.92 and the average proportion of items considered relevant by the three experts is also 0.92. According to Popham (2018) and Waltz, Strickland & Lenz (2010), the ACP score must be greater than 90 as a condition for the validity of an instrument. The result shows that the instrument has the requirement to be considered valid.

In terms of the reliability of the instrument, the researcher performs a Cronbach alpha test to examine the level of the instrument's reliability. In regards with this test, the basis for making decisions in reliability testing is as follows (Sujarweni, 2014): (1) If the Cronbach alpha value is greater than 0.60, then a questionnaire is declared reliable. (2) If the Cronbach alpha value is less than 0.60, then a questionnaire is declaredunreliable.

The statistical analysis result for the reliability of the instrument can be seen in the following table 1. The Cronbach alpha value for the entire questionnaire is 0,762 while the value of the individual item can be seen above, ranging from 0,716 – 0, 805. Since the value of the Cronbach alpha of 0.762 for the entire questionnaire and 0, 716 for the individual item are both bigger than 0.600 minimum value requirement, the parents' struggles questionnaire is then considered reliable.

Table 1. Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
,762	10

Data Analysis

In general, we can find out whether parents' struggles and students' learning motivation in higher education have a correlation or not by using a scatter plot in the descriptive aspect of the correlation assessment of the variables. Inferentially, however, there must be a definite measurement method that can further explain the relationship between the

two variables with an accurate value, both in the aspect of its direction and its power. To find out whether the two variables tested in this study have a positive or negative relationship, the researcher used Pearson Product Moment correlation coefficient analysis via SPSS.

RESULTS AND DISCUSSION

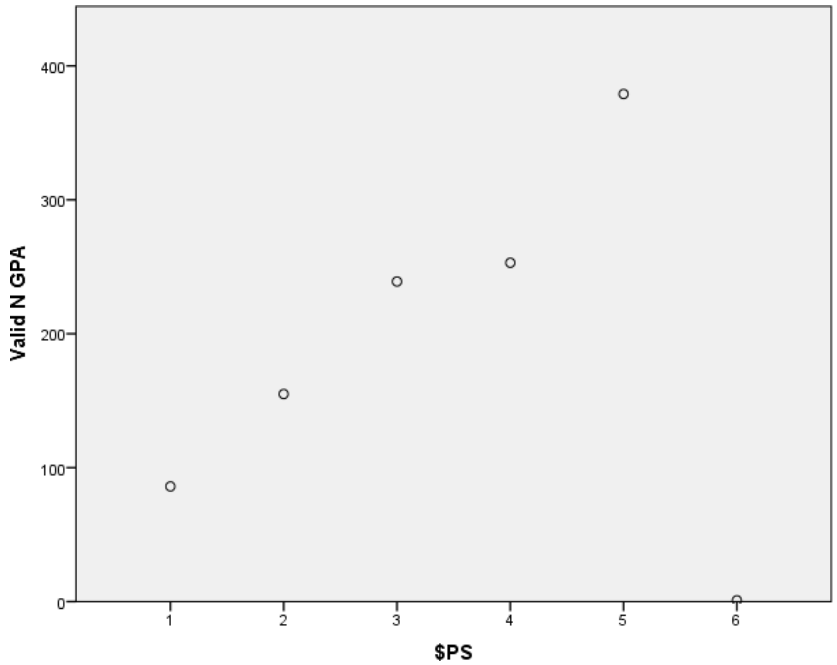
Validity and Reliability

The classical terms or assumptions for Pearson's test include Linearity, Normality, Heteroscedasticity, as seen in below:

Linearity Test

Linearity is the nature of a linear relationship between variables, meaning that any changes that occur in one variable will be followed by changes with parallel magnitudes in other variables. In terms of the linearity analysis, the researcher used Linier Regression in which the result shows that the significance value is 0,002 which is bigger than 0,05. This meets the linearity requirements needed which makes the relationship of the variables is linier. This can be seen in the following scatter plot as well:

Figure 1. Scatter Plot Output



On the Scatter Plot output above, it can be seen that the data plot points form a straight-line pattern from the bottom left to the top right. This shows that there is a linear relationship between the parental struggle variable and the student motivation variable in college. Because there is a linear relationship between the variable of parental struggle (X) and the variable of student learning motivation in college (Y), then the first assumption or requirement for the regression model in this study has been fulfilled.

Normality Test

Normality test is a test carried out with the aim of assessing the distribution of data in a group of data or variables, whether the distribution of the data is normally distributed or not. Normality test is useful for determining the data that has been collected is normally distributed or taken from a normal population. According to the Central Limit Theorem, the larger the size of the sample, the closer it is to normal distribution. However, to put it in numbers, the researcher decided to the test the nature of the data distribution by conducting a normality test by using which is a theory which states that if the sample size is larger, then the nature of the sample mean distribution will be closer to the normal distribution (Kwak, S. K., & Kim, 2017). In the normality test, a data is said to be normally distributed based on the significance value as follows (Terrell, 2021):

a. H0 : The significance value bigger than 0.05 means that the data is normally distributed
b. H1: The significance value smaller than 0.05 means that the data is abnormally distributed.

Looking at the Kolmogorov-Smirnov and Shapiro-Wilk normality test, the significance level is bigger than 0,05, 0.00, which meets the criteria mentioned above. This means, the statistical result accepts the null hypothesis where normal distribution of the data presents.

Heteroscedasticity

Heteroscedasticity test is a test that assesses whether there is an inequality of variance from the residuals for all observations in the linear regression model. This test is one of the classical assumption tests that must be performed on linear regression. If the assumption of heteroscedasticity is not met, then the regression model is declared invalid as a forecasting tool. The result heteroscedasticity analysis in this study can be seen in this following table:

Table 2. Heteroscedasticity Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,415	,105		32,375	,000
	PS_1	-,012	,011	-,061	-1,050	,294
	PS_2	-,022	,012	-,109	-1,820	,070
	PS_3	-,010	,014	-,040	-,710	,478
	PS_4	-,004	,013	-,017	-,290	,772
	PS_5	,033	,024	,093	1,393	,165
	PS_6	,009	,026	,027	,357	,721
	PS_7	,009	,026	,027	,335	,738
	PS_8	,044	,027	,136	1,654	,099
	PS_9	-,061	,033	-,172	-1,845	,066
	PS_10	,041	,023	,130	1,731	,084

a. Dependent Variable: GPA

Table 3. Regression Residual

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,486	10	,149	2,612	,004[b]
	Residual	21,337	375	,057		
	Total	22,824	385			

a. Dependent Variable: GPA

b. Predictors: (Constant), PS_10, PS_1, PS_3, PS_4, PS_2, PS_5, PS_7, PS_6, PS_8, PS_9

From the output above, it is obtained that the two variables do not have symptoms of heteroscedasticity because the significance of the regression residual in total is 0,004 which is bigger than p value of 0,05. The statistical analysis of the Pearson Product Moment Correlation shows that the r and the p values are 0,60 and 0,01 respectively which both signify a strong relationship between the two variables tested. However, the direction of the correlation is shown to be negative which means that if the parents struggles are decreasing, the students' learning motivation is increasing and vice versa as shown in the following table:

Table 4. Correlation

Correlations

		GPA	PS_1	PS_2	PS_3	PS_4	PS_5	PS_6	PS_7	PS_8	PS_9	PS_10
GPA	Pearson Correlation	1	-,122*	-,118*	-,002	,063	,142**	,111*	,110*	,152**	,087	,159**
	Sig. (2-tailed)		,016	,020	,963	,214	,005	,028	,030	,003	,087	,002
	N	389	389	388	389	389	389	389	387	389	389	389
PS_1	Pearson Correlation	-,122*	1	,512**	,058	-,072	-,064	-,009	,001	-,017	-,011	,005
	Sig. (2-tailed)	,016		,000	,251	,156	,210	,861	,981	,731	,822	,915
	N	389	389	388	389	389	389	389	387	389	389	389
PS_2	Pearson Correlation	-,118*	,512**	1	,120*	-,086	,046	,108*	,049	,070	,021	,070
	Sig. (2-tailed)	,020	,000		,018	,089	,361	,033	,337	,169	,686	,171
	N	388	388	388	388	388	388	388	386	388	388	388
PS_3	Pearson Correlation	-,002	,058	,120*	1	,354**	,238**	,333**	,290**	,355**	,303**	,210**
	Sig. (2-tailed)	,963	,251	,018		,000	,000	,000	,000	,000	,000	,000
	N	389	389	388	389	389	389	389	387	389	389	389
PS_4	Pearson Correlation	,063	-,072	-,086	,354**	1	,352**	,322**	,373**	,311**	,324**	,330**
	Sig. (2-tailed)	,214	,156	,089	,000		,000	,000	,000	,000	,000	,000
	N	389	389	388	389	389	389	389	387	389	389	389
PS_5	Pearson Correlation	,142**	-,064	,046	,238**	,352**	1	,561**	,568**	,514**	,570**	,503**
	Sig. (2-tailed)	,005	,210	,361	,000	,000		,000	,000	,000	,000	,000
	N	389	389	388	389	389	389	389	387	389	389	389
PS_6	Pearson Correlation	,111*	-,009	,108*	,333**	,322**	,561**	1	,588**	,622**	,679**	,623**
	Sig. (2-tailed)	,028	,861	,033	,000	,000	,000		,000	,000	,000	,000
	N	389	389	388	389	389	389	389	387	389	389	389
PS_7	Pearson Correlation	,110*	,001	,049	,290**	,373**	,568**	,588**	1	,677**	,740**	,559**
	Sig. (2-tailed)	,030	,981	,337	,000	,000	,000	,000		,000	,000	,000
	N	387	387	386	387	387	387	387	387	387	387	387
PS_8	Pearson Correlation	,152**	-,017	,070	,355**	,311**	,514**	,622**	,677**	1	,728**	,641**
	Sig. (2-tailed)	,003	,731	,169	,000	,000	,000	,000	,000		,000	,000
	N	389	389	388	389	389	389	389	387	389	389	389
PS_9	Pearson Correlation	,087	-,011	,021	,303**	,324**	,570**	,679**	,740**	,728**	1	,677**
	Sig. (2-tailed)	,087	,822	,686	,000	,000	,000	,000	,000	,000		,000
	N	389	389	388	389	389	389	389	387	389	389	389
PS_10	Pearson Correlation	,159**	,005	,070	,210**	,330**	,503**	,623**	,559**	,641**	,677**	1
	Sig. (2-tailed)	,002	,915	,171	,000	,000	,000	,000	,000	,000	,000	
	N	389	389	388	389	389	389	389	387	389	389	389

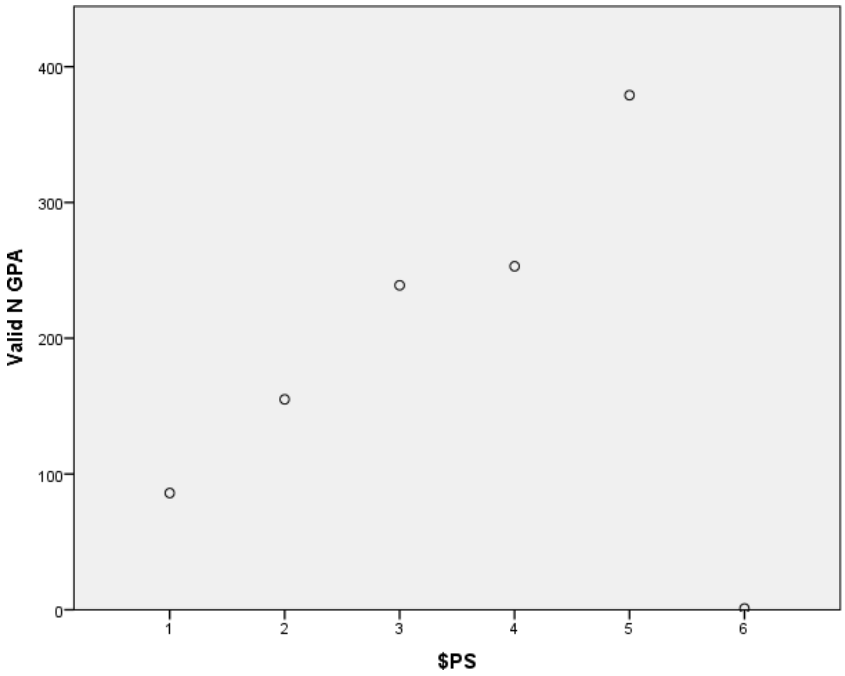
*. Correlation is significant at the 0.05 level (2-tailed).

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

The r and the p values are 0,60 and 0,01 respectively which both signify a strong relationship between the two variables tested, according to the r table. The direction of the correlation is shown to be positive which means that if the parents struggles are increasing, the students' learning motivation is increasing as well.

The next test is then to determine whether parents' struggles and students' learning motivation has a relationship. For this, the researcher uses linier regression analysis to yield the result. Linear regression aims to illustrate the relationship between two variables that correspond equation to the examined variables (Montgomery, D. C., Peck, E. A., & Vining, 2021). Before examining the variables, the researcher should first analyses whether or not there is a relationship between the variables of interest. This can be done by using a scatter plot and correlation coefficient. According to both the scatter plot and the correlation coefficient obtained in this study, there is a significant association between the two variables. The scatter plot shows an increasing trend which indicates an association. In line with that, there is a correlation between the variables as well which can be seen from the value between -1 and 1 indicating the strength of the association of the observed data for the two variables. The scatter plot obtained in this study is as follows:

Figure 2. Scatter Plot Output



The graph shows one outlier that might intervene the observation. Thus, a further analysis is conducted with the linier regression. A linear regression line has an equation of the form Y = a + bX, where (Montgomery, D. C., Peck, E. A., & Vining, 2021):

X = the explanatory variable

Y= the dependent variable.

b= the lope of the line and

a= the intercept (the value of y when x = 0).

According to the result of the analysis, the following illustration is obtained:

Table 5. Regression analysis result

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,486	10	,149	2,612	,004[b]
	Residual	21,337	375	,057		
	Total	22,824	385			

a. Dependent Variable: GPA

b. Predictors: (Constant), PS_10, PS_1, PS_3, PS_4, PS_2, PS_5, PS_7, PS_6, PS_8, PS_9

Table 6. Individual regression analysis result

After the statistical analysis on the relationship between parents' struggles

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,415	,105		32,375	,000
	PS_1	-,012	,011	-,061	-1,050	,294
	PS_2	-,022	,012	-,109	-1,820	,070
	PS_3	-,010	,014	-,040	-,710	,478
	PS_4	-,004	,013	-,017	-,290	,772
	PS_5	,033	,024	,093	1,393	,165
	PS_6	,009	,026	,027	,357	,721
	PS_7	,009	,026	,027	,335	,738
	PS_8	,044	,027	,136	1,654	,099
	PS_9	-,061	,033	-,172	-1,845	,066
	PS_10	,041	,023	,130	1,731	,084

a. Dependent Variable: GPA

Variable and students' learning motivation vaiable, the below findings are summarized: (1) The parents' struggles variable has a significant correlation with the students' learning motivation in higher education with the r value of 0,60 which means a strong correlation. (2) In addition to that, the p value of the corelation is bigger than 0,05 which means that the relationship is significant. (3) The direction of the correlation is shown to be positive where the trend points upward right that suggest that when the predictor variable, the parents struggles, increases, the criterion variable, the students' learning motivation increases as well. (4) In conclusion, the findings suggest that parents' struggles are significantly correlated with students' learning motivation in higher education.This means the null hyphothesis is rejected and the alternative hyphothesis is accepted.

CONCLUSION

This section contains the conclusions written in one or two paragraphs. The conclusion is written in essay form, not in numerical form. Conclusions should be an answer to the research question and are not described in the stats sentence. If you need to write down any suggestions or recommendations must be written together in the second paragraph. Based on the analysis, the conclusions for this study are as follows: 1) There is a significant realtionship between parents struggles and students' learning motivation in higher education as shown by the Pearson Product Moment analysis that shows that the r value is 0,60 and the p value is 0,01. 2) The nature of the relationship falls into the category of strong according to the p value table. 3) The direction of the research is positive in which the increase in parents' struggles is followed by an increase in students' learning motivation as well. 4) Thus, the relationship between parents' struggles and students' learning motivation does exist as indicated by the result of the regression analysis conducted.

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