



The Influence of Learning Motivation and Learning Understanding on Student's Cumulative Grade Point Average

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Abstract: Indonesia is still struggling to become a developed country. In the process, it is necessary to maximize various aspects, both natural resources and human resources (HR). The purpose of this study is to see whether learning motivation and understanding of learning affect the Student Achievement Index which will support their future career. Students that learning at university who will later have a career and become HR are expected to be able to make Indonesia a developed country driven by the economy. While studying at university, intention and motivation play an important role. Because when someone has strong motivation, he can achieve his targets and also have a good plan for his future career. Previous research has also proven that motivation is an important part of learning understanding. Motivation is also part of emotional intelligence (EQ), where emotional intelligence is also an important part of learning besides intellectual intelligence (IQ). The hypothesis of this study is that students who have good motivation tend to achieve good learning understanding and also get a good GPA and help plan their future careers. The sample of this study was students of the Sriwijaya State Polytechnic, Bukit class, Sriwijaya State Polytechnic, totaling 65 people. This research method uses regression. Student motivation, learning understanding and GPA were measured and collect by a questionnaire with a Lickert scale. Then, the data was analyzed using SPSS software. The result is that student motivation has a influence on student learning understanding and their GPA.

Keywords: Student Motivation; Learning Understanding; GPA.

Pengaruh Motivasi Belajar dan Memahami Pembelajaran Terhadap Indeks Prestasi Kumulatif Siswa

Abstrak: Indonesia masih berjuang untuk menjadi negara maju. Dalam prosesnya, perlu memaksimalkan berbagai aspek, baik sumber daya alam maupun sumber daya manusia (SDM). Tujuan dari penelitian ini untuk melihat apakah motivasi belajar dan memahami pembelajaran mempengaruhi Indeks Prestasi Mahasiswa yang akan mendukung karir dalam masa depannya. Mahasiswa yang menempuh pendidikan di perguruan tinggi yang nantinya akan berkarir dan menjadi SDM diharapkan mampu menjadikan Indonesia sebagai negara maju yang digerakkan oleh perekonomian. Selama menempuh pendidikan di perguruan tinggi, minat dan motivasi memegang peranan penting. Sebab ketika seseorang memiliki motivasi yang kuat, ia dapat mencapai targetnya dan juga memiliki rencana yang baik untuk karirnya di masa depan. Penelitian terdahulu juga telah membuktikan bahwa motivasi merupakan bagian penting dari pembelajaran. Motivasi juga merupakan bagian dari kecerdasan emosional (EQ), dimana kecerdasan emosional juga merupakan bagian penting dari pembelajaran selain kecerdasan intelektual (IQ). Hipotesis penelitian ini adalah mahasiswa yang memiliki motivasi yang baik cenderung akan mencapai pembelajaran yang baik dan juga memperoleh IPK yang baik serta membantu merencanakan karirnya di masa depan. Sampel penelitian ini adalah mahasiswa Politeknik Negeri Sriwijaya kelas Bukit Politeknik Negeri Sriwijaya yang berjumlah 65 orang. Metode penelitian ini menggunakan regresi. Motivasi mahasiswa, pembelajaran dan IPK diukur dan dikumpulkan dengan kuesioner dengan skala Lickert. Kemudian, data dianalisis menggunakan perangkat lunak SPSS. Hasil dan kesimpulan menunjukkan motivasi mahasiswa memiliki pengaruh terhadap pemahaman belajar mahasiswa dan IPK mereka.

Kata kunci: Motivasi Siswa; Pemahaman Pembelajaran; IPK.

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INTRODUCTION

As one of the countries in Southeast Asia, Indonesia is still a developing country. This is a bit unfortunate whereas Indonesia has many natural resources, both on land and at sea. Indonesia also has a fairly large land and sea area. On the other hand, neighboring countries like Singapore which has less land and less sea area, also has fewer natural resources, has been able to become a fairly advanced country. If we look further, Singapore can do this because it is supported by their quality of human resources.

Good quality of human resources can be obtained by having good intelligence. Intelligence has two elements which are cognitive intelligence (intellectual) and non-cognitive intelligence (emotional). This concept has been discussed by Wechsler, D (1940). This shows that intelligence is not only about IQ (intellectual intelligence) but also about EQ (emotional intelligence). Previous research also found that high emotional intelligence can contribute to the learning process of a student, Goleman, (1996); Elias, Ubriaco, Reese et al., (1992). This implies that emotional intelligence can improve student learning understanding. Goleman, (1995) state emotional intelligence as self-awareness, self-regulation, motivation. This means that motivation is identified also as a crucial aspect of emotional intelligence that can improve student learning outcomes.

Currently, the author who is also a lecturer, found that there are still quite a lot of students that come to university just to play and meet friends, they study at college only because their parents told them to or because of prestige being a college student. They do not yet or very rarely have their own motivation in studying. Motivation is a condition of being driven by motives (Peltonen and Ruohotie, 1992). Motivation drives the individual to act in a certain way implying that behaviour is goal-oriented (Peltonen and Ruohotie, 1992; Sprinthall et al., 1994). Motivation is also system-oriented, in other words, a process of feedback can either encourage or discourage individuals' behaviour, which can cause them to discontinue their behaviour and find a new outlet for their energy (Peltonen and Ruohotie, 1992). Previous research has divided motivation into two, namely general motivation and situational motivation. General motivation emphasises the stability of behaviour, representing its average level. Situational motivation is specific to a certain situation, in which intrinsic or extrinsic factors create motives and generate goal-oriented behaviour (Krapp et al., 1992; Ruohotie, 1982).

In the other hand, previous research has given a broad definition of emotional intelligence which is understanding self-feelings and being able to dealing with those feelings without being influenced by them, being able to motivate oneself to complete work, be creative and strive reach the maximum level, notice the feelings of others and deal with social relationships effectively, Higgs and Dulewicz, (1999).

The purpose of this paper is to investigate the leverage of student's motivation in to study and understanding learning towards their GPA. This study contributes to our theoretical understanding of how students' GPA are influenced by motivation and learning understanding. GPA is a value given by an educator based on the number of fields of study that have been studied by students (Syafi'i, 2018), dan GPA is one of the benchmarks of academic mastery that has been obtained by students (Anggresta, 2015; Dewi, & Septa, 2019).

Finally, this study contributes to the evaluation and research practices of various educational and work initiatives. This study proceeds as follows. In the next section, we establish the theoretical foundation and hypotheses of the study and proceed to present the sample data and variables used. Finally, we present the results and draw our conclusions in the discussion section.

Sabarlah (2013) found that students with high emotional intelligence have the potential to obtain better academic understanding. Yahaya, et al (2014) showed that there were significant

differences for factors (self-awareness, self-motivation and empathy) on students' academic understanding. In short, superior academic understanding is the main target and goal of every student regardless of ethnic grouping.

Hytti, et al (2010) found that extrinsic motivation had a positive effect on learning outcome. Previous research has shown that took more than 1000 people with high IQ from childhood to retirement over 60 years. Those who are more successful in their careers are those who have confidence during their early years. Students who have good self-confidence are expected to achieve a good future career, Holahan and Sears (1995). Lopez et al (2023) stated that motivation affects academic performance. Strongly motivates show a very high level of extrinsic motivation (Usefulness for career), Agejev et al (2005).

On the other hand, Students learning understand was measured by using Nickerson (1985) item and level of Students' motivation to study was measured based on intrinsic and extrinsic motivation. We used 10 measures to investigate students' motivation to study adapted from Seikkula-Leino (2002) who used it to measure motivation to study a foreign language. To assess motivation to study at college, respondents were asked to answer the question: "What do you think about the following statements about motivation to study?" on a four-point scale as below. Likert-styling scores from: 1 (SD = Strongly Disagree), 2 (D = Disagree), 3 (A = Agree), 4 (SA = Strongly Agree). In terms of statements of motivation and learning understanding results, a score of 4 (SA = Strongly Agree) will represent a high level of motivation and learning understanding results.

Next, after motivation and learning understanding are used as independent variables. GPA as a dependent variable is obtained through a questionnaire that is also distributed to students and they fill in the GPA column.

METHOD

Sample and data collection

An online-based survey was used to test the hypotheses. Data were collected from students. The survey was conducted via gform, participants from the Department of Business Administration at Sriwijaya State Polytechnic. Consisting of 65 students from the Bukit class located in Palembang City, Indonesia. Finally, this sample was used in testing the hypotheses.

The research was conducted from Januari 2025 at the Sriwijaya State Polytechnic, Department of Business Administration. Student's motivation score measure using assessment from Seikkula-Leino (2002).

No	Item Statement
1	I am interested in studying
2	I would study even if I would not have to
3	Studying is not useless, since one day I may be an succeed myself
4	Studying is important for me, since it helps me to better understand
5	When I study, it is important that I will learn the necessary knowledge and skills needed
6	Because getting a good diploma is really important, it is important to get good grades also in the courses
7	When studying, it is important for one to manage his/her classes and exams well
8	Studying is important for getting a good education
9	In order to get a good job, it is important to study
10	When someone studies, someone can get to know the people around them and their environment.

Research data were analyzed through regression analysis. Motivation is defined as the independent variable (X_1), while student learning understanding is defined as independent variable (X_2), Nickerson (1985) explains that students understand something if:

1. He can see the characteristics of the concept in depth.
2. He looks for specific information about a situation quickly.
3. Able to represent situations and see situations with schematic models.
4. He also underlined the importance of knowledge and the ability to relate knowledge.

These four indicators were then developed into questionnaire items that would be distributed to respondents. GPA defined as the dependent variable (Y). The analysis will be carried out at a significant level of 0.05 with the help of SPSS software. Estimation of the regression equation for the data obtained is:

$$\hat{Y} = b_0 + b_1 X_1 + b_2 X_2$$

Note: \hat{Y} = Grade-point average (GPA)
 b_0 = Intercept
 $b_{1,2}$ = Regression Coefficient
 X_1 = Motivation
 X_2 = Learning understandings

From the result of the analysis, we can elaborate on the relationship between Motivation and student learning understanding, also the degree of Student Motivation and Learning understanding contribution towards student GPA. Based on the preceding literature, the hypotheses for this research are as follows:

- H0: Student Motivation and Learning understanding does not have a significant effect contribution towards student GPA.
- H1: Student Motivation and Learning understanding have a significant effect contribution towards student GPA.

RESULT AND DISCUSSION

Result

Motivation is a driving force for someone to do something. With strong motivation, someone will do their work with all their might and totality and in this case is study at class. At its core, a Motivation is about to have full strength and confident over something. Motivation is also allegedly contributed to the student learning Understanding and Student GPA. To test the allegation the researcher has spread a questionnaire to measure the Motivation and student learning understanding contribution towards student GPA.

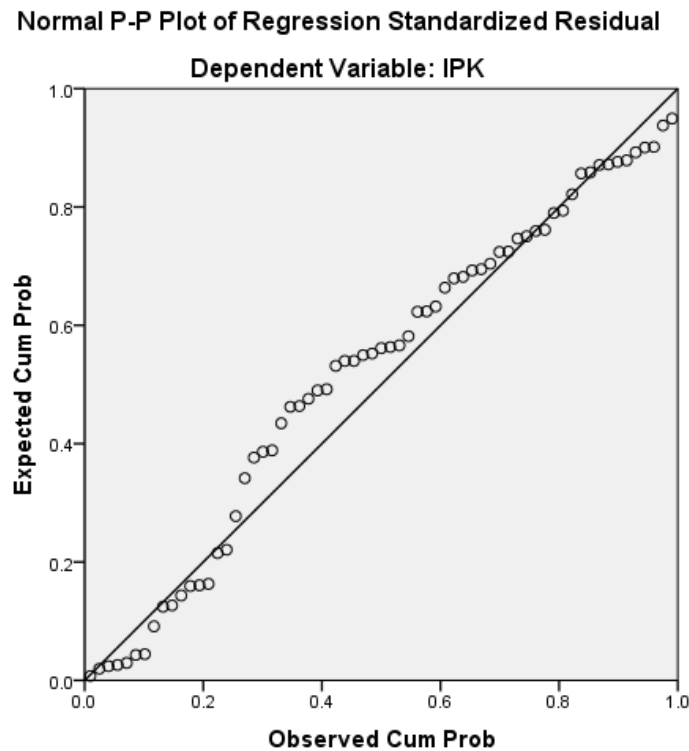
Usable questionnaires were received from 65 respondents. From 65 respondents, 27.7% were male whereas 72.3% were female. This implies that respondents more female as compared to the male. This is because the business administration class tends to be more popular with female. Regarding the class of the respondents.

Respondents	Male	Female
Students	18	47
Percentage	27.2%	72.3%

Earlier, before conducting multiple regression, there are several tests that need to be done to ensure the validity and reliability of the resulting model. These tests are known as classical assumption tests, which include normality tests, multicollinearity tests and heteroscedasticity tests.

1. Normality Test, to ensure that the residuals (error remainders) of the regression model are normally distributed. If the residuals are not normal, then the regression results may not be valid and interpretable. Basis for making decisions for normality testing:

P-Plot chart: If the data distribution is normal, then the line that describes the actual data will follow the diagonal line, (Ghozali, 2018).



Graph 1. P Plot
Source: Primary data

Based on the test results graph above, the line that describes the data follows the diagonal line, so the data is normally distributed.

2. Multicollinearity tests, to ensure that there is no high correlation between the independent variables (predictors) in the regression model. Multicollinearity can interfere with the accuracy and interpretation of the regression coefficients. Basis for making decisions for Multicollinearity tests, if the tolerance value > 0.1 or $VIF < 10$, then multicollinearity does not occur, (Ghozali, 2018).

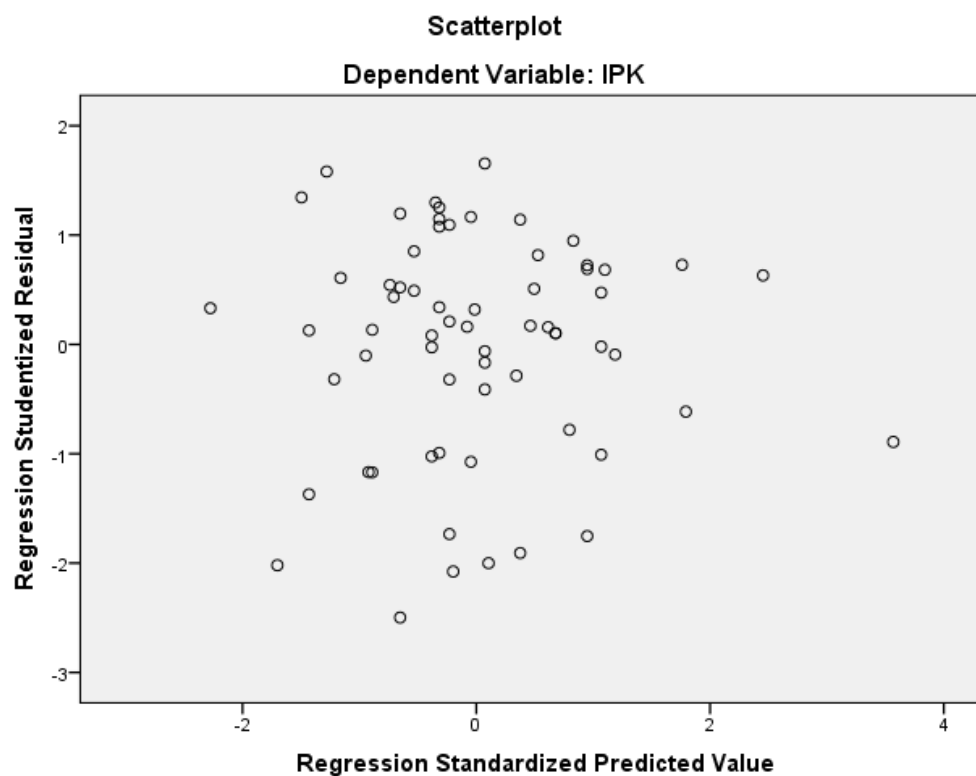
Table 1. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.427	.474		5.123	.000
1 Motivasi	.013	.014	.126	.956	.343
LearningUnderstanding	.024	.014	.226	1.717	.091

Source: Primary data

Based on the test results table above, tolerance value > 0.091 , then we can conclude multicollinearity does not occur.

3. Heteroscedasticity tests, to ensure uniform residual variance (the same) at all levels of the independent variable. Heteroscedasticity can lead to inefficient estimation of regression coefficients. Basis for making decisions for Scatterplot table If the points are spread above and below or around the number 0 line and the points do not only gather above and below, then it can be concluded that there is no heteroscedasticity problem.



Graph 2. Scatterplot
Source: Primary data

Based on the graph above, the points are spread above and below or around the number 0 and the points do not only gather above and below, so it can be concluded that there is no heteroscedasticity problem.

After the classical assumption test has been carried out and is fulfilled, the results of the multiple regression test will be discussed next. Regression Analyses Results reveal that Motivation have contribution on GPK outcome ($\beta = .013$, $p < 0.05$), implying that Motivation are predictors of student GPK and Learning Understanding have contribution on GPK outcome ($\beta = .024$, $p < 0.05$), implying that Learning Understanding are predictors of student GPK. From the results above, a unit change in Motivation will bring about 0.013 change in student GPK and a unit change in Learning Understanding will bring about 0.024 change in student GPK. Refer to Table 1 for more detailed description for regression results:

Table 2. Regression Model

Model		Unstandardized <u>Coefficients</u>		Standardized <u>coefficients</u>	<i>t</i>	<u>Sig</u>
		<i>B</i>	Std. error	Beta		
	(Constant)	2.427	0.474		5.123	.000
1	Motivation	.013	.014	.126	.956	.0343
2	Learning Understanding	.024	.014	.226	1.717	.091

$R = .298$ $R^2 = .089$ Adjusted $R^2 = .060$ F Statistic = 3.031

Source: Primary data

From tabel above, estimation of the regression equation for the data obtained is:

$GPA = 2.427 + 0.013 X_1 + 0.024 X_2$, where:

X_1 = Motivation

X_2 = Learning understandings

Therefore, research in Department of Business Administration Sriwijaya State Polytechnic who took the Business Statistics class as shown in the regression analyses model indicate that a Motivation and student learning understanding is predictors on student GPA. Positive relationship between Motivation and student learning understandings on student GPA which implies that a change in Motivation and student learning understanding would cause a change in student GPA. Although the data processing results show a significance value of more than 0.05, this indicates that the influence between the independent variables is not very significant on the dependent variable.

Discussion

Several previous studies have also discussed motivation, understanding of learning and high-grade achievement. By managing motivation is one of the strategies to improve student learning outcomes, Rahmawati (2022). Factors that influence learning achievement include the following: (1) The influence of superior education and learning; (2) Brain development and measurement, and (3) Emotional intelligence (Wahab, 2015, pp. 247-248). Since the research findings show that there is a positive relationship between Motivation and learning understanding towards student GPA, teachers or lectures can help students to manage, develop and improve student GPA by manage student to increase their Motivation and attain good learning understanding. Teachers also need seriousness in using innovative learning techniques and learning media so that a good and successful teaching and learning process can be carried out" (Widyahening, 2018). At the end of the discussion, the author can recommend some following recommendation:

1. Help student to seek information about their interest as a basic for student motivation.
2. Teach student how to keep study even when they feel don't have to.
3. In order to improve, teach student that study is not useless, for one day maybe they will succeed.
4. Teach them how to understand that Studying is important, since it helps to better understand.
5. Demonstrate they how it is important that learn the necessary knowledge and skills they needed.
6. Tell student that getting a good diploma is really important and it is important to get good grades also in the courses.
7. Help student to understand that it is important to manage his/her classes and exams well.
8. Demonstrate student that studying is important for getting a good education.
9. Teach them how that someone can get to know the people around them and their environment.
10. Show Student to see the characteristics of the concept in depth.
11. Demonstrate student how to manage for specific information about a situation quickly.
12. Teach student to be Able to represent situations and see situations with schematic models.
13. And in order to improve, help student to underlined the importance of knowledge and the ability to relate knowledge.

CONCLUSION

This research objective is to find out the contribution Motivation and student learning understanding on their GPA using evidence from Department of Business Administration Sriwijaya State Polytechnic who took the Business Statistics class. This was achieved through a questionnaire survey of 65 students in Department of Business Administration Sriwijaya State Polytechnic who took the Business Statistics class. From 65 respondents, 27.7% were male whereas 72.3% were female. Regression Analyses Results reveal that Motivation have contribution on GPK outcome ($\beta = .013$, $p < 0.05$), implying that Motivation are predictors of student GPK and Learning Understanding have contribution on GPK outcome ($\beta = .024$, $p < 0.05$), implying that Learning Understanding are predictors of student GPK. From the results above, a unit change in Motivation will bring about 0.013 change in student GPK and a unit change in Learning Understanding will bring about 0.024 change in student GPK

Through this paper, writer dream is by applying this recommendation will make students more enjoyable in study and learning. The implications involve impact for students in terms of improvements in study and hence signify substantial grade impact on class. Like any other study,

this study has limitations. This study was only a cross-sectional and student questionnaire is with a close-ended question. Close-ended questions limit a respondent's freedom to express their other opinion. The research results also maybe generate different outputs in different situations and different university cultures. Further research may include more variables that support student GPA like student engagement, class culture, and behavior on student and any others.

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