Factors Affecting on Academic Success of Senior High School Students

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Abstracts

This study aims to investigate the relationship between learning motivation, student participation, learning effort, learning self-regulation, achievement goal, learning self-efficacy, and academic success and to investigate the effects of learning motivation, student engagement, learning effort, learning self-regulation, achievement goals, and learning self-efficacy on academic success.

The survey was conducted on tenth-grade students of Chenzhou No. 3 Middle School. The tenth grade has a total of 600 students. Among them, students from four classes were randomly selected as the research sample, with a total of 234 students. Data collection by questionnaire, The data was analyzed by the Pearson Product Moment Correlation Coefficient and Stepwise Multiple Regression Analysis.The result is as follows:

1. There was a significant positive correlation between the 6 factors of academic success in Chenzhou No. 3 Middle School, learning motivation (X_1), student participation (X_2), learning effort (X_3), learning self-regulation (X_4), achievement goals (X_5) and learning self-efficacy (X_6) at.0.1level.

2. There are 6 factors that affect the academic success of tenth-grade students in Chenzhou No. 3 Middle School, at.01level from large to small, learning self-efficacy (x6), learning motivation (X_1), student participation (X_2), learning self-regulation (X_4), study effort (X_3), achievement goal (X_5).

3. A Significant Predictive Equation for the Academic Success of High School Students. At the .01 level were:

In terms of raw scores were:

$$\hat{Y} = 0.565+0.211X_2+0.127X_4+0.127X_5+0.120X_3+0.115X_6+0.108X_1.$$

In terms of standard scores were:

$$Z = 0.201X_2+0.199X_5+0.171X_6+0.160X_4+0.159X_1+0.153X_3.$$

Keywords: Academic Success; Learning Self-efficacy; Learning Motivation; Student Participation; Learning Self-regulation.

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Introduction

Academically successful students have higher self-esteem, lower rates of depression, and are less likely to use alcohol and drugs. Academic success is important to students because it is closely linked to positive outcomes that we value. Academically successful and highly educated people have higher employment opportunities, more stable employment, and higher wages than less educated people, are more likely to have health insurance, less dependent on social assistance, less likely to engage in criminal activity, and are more active, healthier, and happier as citizens and charity volunteers. Academic success is important because working people will need higher levels of education for the technically demanding occupations of the future (Janelle Regier 2011 : 125). Academic success, whether defined as academic achievement or educational persistence, has been studied in terms of purely academic dimensions, such as lack of ability, or good versus poor study habits (Guskey, 2013 : 88 ; Hatti & Anderman, 2013 : 201).

The term “academic success is made up of six components: academic achievement, satisfaction, acquisition of skills and competencies, persistence, attainment of learning objectives, and career success” (York et al.,2015 : 9). Academic achievement is progress in the acquisition of educational skills, materials, and knowledge, and it refers to achievement in an academic setting. Satisfaction is "students' subjective perception of how well the learning environment supports academic success," and student satisfaction indicates the quality of an educator's teaching skills. Skills refer to specialized knowledge in an organization and can be based on technical, professional, or social expertise. Persistence is the student's persistence in learning; persistence; retention, is the time of retention, the duration of being constant or maintaining a certain state. A learning objective is a broad statement of the overall outcome expected from a teaching unit or project. Career success refers to the positive professional outcomes achieved by an individual during work experience.

The high school period is a very critical learning stage for students because in high school students will face the need to take the college entrance examination. Therefore, the quality of a student's studies will affect whether the student can enter a good university, or even be admitted to a university. This may affect the development of a student's future career, and may also affect whether the student will work in the future. Being able to have a satisfying job makes a big difference. Academic work has always been the standard for testing a student's learning level, and it is an ability test to test the student's internal academic knowledge over a period of time.

In terms of learning motivation, students pay more attention to their own characteristics, do not pay attention to learning, and are not even interested in learning, but are keen to participate in extracurricular recreational activities. They don't care about their academic performance and feel that the current study is not suitable for them. The lack of learning motivation of students is mainly manifested in the lack of clear learning goals, learning for the sake of learning, or even getting tired of learning and avoiding learning. If a student is not motivated to learn in terms of learning, it will seriously affect the student's future academic success. learning motivation acts as one of the main keys to an individual's academic success (Rahardjanto et al., 2019 : 179-192). According to Rahardjanto et al. (2019 : 179-192), research shows that learning motivation has an impact on academic success and is positively correlated.

In terms of student participation, possibly due to increased learning intensity. This has also caused some students to find ways to be lazy in terms of participation and find various reasons not to attend class. For example, because I went to bed too late at night and couldn't get up the next morning, I didn't go to class, or I pretended to be sick and found various reasons to ask for leave and not to go to class. Such learning status and learning performance seriously affect students' academic performance. student success is linked to student participation (Korobova and Starobin 2015 : 72-85). As reported by Korobova and Starobin, 2015 : 72-85), student engagement has an impact and a positive relationship with academic success.

In terms of learning effort, students' lack of clear goals is one of the main factors that cause students to not study hard, and they lack clear goals for their future. Learning, many students are not sure what it can bring to them in the future, or even what they can do in the future, which leads to their lack of effort in learning. They do not see the relevance of what they are learning to their future careers, or some students are not interested in what they are learning now. And the reason why some students don't work hard is that they dare not work hard. They are afraid that they will not get the results they want after working hard, which leads to choosing not to study hard and to be content with the status quo. If you don't work hard in your studies, you will definitely not get good learning results, and you will not be successful in your studies. Karabiyik, C., & Mirici, I. H. (2018 : 373-395). learning effort is an important determinant of academic success. Show that learning effort is related to academic success.

In terms of self-regulation in learning, most of the students are relatively poor in self-regulation in learning. For example, students are under the pressure of academic performance and the pressure to enter a higher school. As long as they feel some pressure, they can't control their emotions and focus, which leads to poor academic results. The extremely rapid development of today's society has caused students to feel more and more pressure, which has also caused many students to feel anxious. With the rapid development of the social economy, the influence of social media is also wider, such as the various social software and video-watching software used by students today. If students do not have good self-regulation skills, it will seriously affect their studies， It can also be severely affected in terms of academic success. Pintrich (2000 : 452) found that students with self-regulation skills are more motivated to academic success and learn better than other students. According to Pintrich's (2000 : 452） research, self-regulation has a positive correlation with academic success.

In terms of achievement goals, some students lack successful experience. Some students' academic performance is always good. They do not have the opportunity to serve as class cadres at school, and they rarely have the opportunity to participate in some important activities. They always miss various awards and honors, which causes some students to lack a sense of accomplishment. Whether they are at home or at school, they get little praise and rewards, but more criticism and punishment, so they often think that they are failures at school, which also leads to their belief in achievement goals and a sense of belonging in learning. And the emotion slowly fades away. students with goals can have higher academic success (e.g., better results on an exam) than students with other types of achievement goals (Verner-Filion & Gaudreau, 2010 : 181). According to Verner-Filion and Gaudreau's research, achievement goals have a positive correlation with the impact of academic success.

In terms of learning self-efficacy, some students will seriously lack self-confidence in the future learning process because of their temporary poor academic performance, or because they are not as good as other students in a certain aspect. For example, in the classroom, students who lack self-efficacy always feel that their learning ability is not as good as others and that their control and understanding of knowledge are not as good as other students. These students have a relatively low sense of identity themselves, which will also lead to negative learning in the future learning process. Self-efficacy is one of the best predictors of academic success (Stajkovic et al., 2018 : 238). It shows that self-efficacy has a positive correlation with academic success.

From my personal teaching experience, for high school students, their success lies in whether they can achieve excellent results and whether they can be self-satisfied. The success of high school students lies in whether they can show their achievements in learning, or whether they can show themselves on a larger learning platform and achieve excellent results in learning competitions. If they want to succeed, they must first actively participate in learning and work hard and purposefully to learn to lay a firmer foundation for the knowledge they have learned. Constantly improve your professionalism, practice day after day, and be able to self-regulate your emotions and states when encountering setbacks and difficulties. This is an important factor in determining success for students in their studies.

Academic success is important because not only the good jobs with satisfactory wages for the students would have but also the higher levels of education to tackle the technologically demanding occupations the working students would need in the future (Brown, 1999 : 284 ; National Alliance of Business, Inc., 1998 : 63). Moreover, the quantity of jobs demanding a university education is predicted to increase more than twice as fast as those not demanding a university education by the next ten to twenty years (Fleetwood & Shelley, 2000 : 3-9 ; Rentner & Kober, 2001 : 87). The students with academic success would have more opportunities to choose their future jobs than those with less education. Finally, academic success helps students keep off participation in sexual activities (Schvaneveldt et al., 2001 : 767-787), have higher self-regard (Filozof et al., 1998 : 68-72), have lower levels of hopelessness and worry (Cicchetti & Toth, 1998 : 221-241 ; Liem et al., 2001 : 142), get away from the misuse of alcohol and social unexpected performance (Kasen et al., 1998 : 49-72), and prevent themselves from engaging in chemical abuse (Hallfors et al., 2006 : 1-15 ; Schulenberg et al., 1994 : 45-62).

Research Objective

1. To investigate the relationship between learning motivation, student participation, learning effort, learning self-regulation, achievement goal, learning self-efficacy, and academic success.

2. To investigate the effects of learning motivation, student engagement, learning effort, learning self-regulation, achievement goals, and learning self-efficacy on academic success.

Research Methodology

Using quantitative research, this study investigates the factors that influence the academic success of high school students. Quantitative studies usually take the form of data, explaining educational phenomena. In the form of a questionnaire survey, data on factors influencing student academic success were obtained.

Research Scope

Population

The population was conducted on tenth-grade students of Chenzhou No. 3 Middle School. The population has 600 students in total.

Participants

The participants were 234 students in the tenth grade of high school. These students were simple random sampling from population.

Research Instruments

The research instruments were seven questionnaires. The 5-point Likert scale was used to design the questionnaire. The questionnaires were evaluated and tested. The results were as followed:

1. Academic Success Questionnaire, Involving 30 questions, the value of Cronbach's Alpha is 0.911.
2. Learning Motivation Questionnaire, Involving 10 questions, the value of Cronbach's Alpha is 0.940.
3. Student Participation Questionnaire, Involving 10 questions, the value of Cronbach's Alpha is 0.945.
4. Learning Effort Questionnaire, Involving 10 questions, the value of Cronbach's Alpha is 0.849.
5. Learning Self-Regulation Questionnaire, Involving 10 questions, the value of Cronbach's Alpha is 0.860.
6. Achievement Goals Questionnaire, Involving 10 questions, the value of Cronbach's Alpha is 0.932.
7. Learning Self-Efficacy Questionnaire, Involving 10 questions, the value of Cronbach's Alpha is 0.936.

The reliability analysis of the 50-student Cronbach's Alpha results in a range of 0.849-0.945 for the seven questionnaires.

Research Results

This study aims to study the factors that affect the academic success of high school students. The result is as follows:

Table 1. Descriptive statistics results

variables	N	Min	Max	Mean	S.D.
Academic success (Y)	234	1.60	4.27	2.70	.79
Learning motivation (X_1)	234	1.00	4.80	2.50	1.17
Student Participation (X_2)	234	1.70	4.40	2.73	.75
Learning effort (X_3)	234	1.30	4.60	2.62	1.01
Learning self-regulation (X_4)	234	1.20	4.50	2.62	.99
Achievement goal (X_5)	234	1.00	4.80	2.50	1.24
Learning self-efficacy (X_6)	234	1.00	4.80	2.43	1.17

This is a summary of descriptive statistics for a data set consisting of seven different sections (academic success (Y) to Learning self-efficacy (X_6)), each with 234 students. For each section, we provide the minimum, maximum, mean, and standard deviation information.

1. The value of academic success (Y) is between 1.60 and 4.27, with a mean of 2.6524 and a standard deviation of .78997. The standard deviation is relatively small, indicating that the data distribution in this part is more concentrated.

2. The value of learning motivation (X_1) is between 1.00 and 4.80, with a mean of 2.4594 and a standard deviation of 1.16749. The standard deviation is greater than section 1 academic success (Y), indicating that this part of the data is widely distributed.

3. The value of student participation (X_2) is between 1.70 and 4.40, with an average of 2.7316 and a standard deviation of .75378. Compared with the first two parts, the standard deviation is the smallest, indicating that the distribution of this part of the data is more concentrated.

4. The value of Learning effort (X_3) is between 1.30 and 4.60, with an average of 2.6179 and a standard deviation of 1.00728.

5. The value of Learning self-regulation (X_4) is between 1.20 and 4.50, with a mean of 2.6214 and a standard deviation of .99417. Indicates that the data distribution in this part is narrow.

6. The value of the Achievement goal (X_5) is between 1.00 and 4.80, with an average of 2.4983 and a standard deviation of 1.23674. A larger standard deviation indicates a wider distribution of this part of the data.

7. The value of Learning self-efficacy (X_6) is between 1.00 and 4.80, with an average of 2.4299 and a standard deviation of 1.17391. This part of the data has the smallest average value, indicating that the data is more concentrated.

Finally, all sections have complete observations, 234 in total. Overall, the distributions and means of these seven parts are different, indicating that the data sets have some differences among the seven parts.

Table 2. Pearson multiple correlation results.

	Y	X_1	X_2	X_3	X_4	X_5	X_6
Y	1	.462**	.443**	.436**	.437**	.429**	.467**
X_1		1	.303**	.385**	.284**	.347**	.403**
X_2			1	.267**	.335**	.207**	.334**
X_3				1	.355**	.256**	.350**
X_4					1	.271**	.330**
X_5						1	.293**
X_6							1

This is a matrix of Pearson correlation coefficients between 7 parts (Y to X_6). The number in each cell indicates the degree of correlation between the two parts. Values range from -1 to 1, where close to 1 indicates a strong positive correlation, close to -1 indicates a strong negative correlation, and close to 0 indicates no or weak correlation. In this case, all correlation coefficients are positive, which means that there is some degree of positive correlation between all components, and the correlations are all significant. The specific description is as follows:

1. The correlation coefficient between Y and all other parts is between 0.429 and (X_5) to 0.467 (X_6), indicating that there is a moderate degree of positive correlation between X_1 and other parts.

2. The correlation coefficient between X_1 and other parts is between 0.284 and (X_4) to 0.462 and (Y), showing a moderate degree of positive correlation.

3. The correlation coefficient between X_2 and other parts is between 0.207 and (X_5) to 0.443 and (Y), and the correlation with X6 is weak, but it shows a moderate positive correlation with other parts.

4. The correlation coefficient between X_3 and other parts is between 0.256 and (X_5) to 0.436 and (Y), the correlation with X_5 is weak and shows a moderate positive correlation with other parts.

5. The correlation coefficient between X_4 and other parts is between 0.271 and (X_5) to 0.437 and (Y), and the correlation with X6 is weak, while it shows a moderate positive correlation with other parts.

6. The correlation coefficient between X_5 and other parts is between 0.207 and (X_2) to 0.429 and (Y), the correlation with X_3 is the weakest, and it shows a moderate degree of positive correlation with other parts.

7. The correlation coefficient between X_6 and other parts is between 0.293 and (X_5) to 0.467 and (Y), the correlation with X_5 is weak and shows a moderate positive correlation with other parts.

In general, all parts exhibit some degree of positive correlation among them, among which Y has a relatively high correlation with other parts, while X_5 has a relatively low correlation with other parts. This may suggest that the X_1 shares more in common with the rest, while the X_5 may differ in some ways.

Table 3. Multiple linear regression analysis models.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.682[a]	.465	.451	.58542

a. Predictors: (Constant), Learning self-efficacy, Achievement goal, Student Participation, Learning effort, Learning self-regulation, Learning motivation

This is a model summary of a multiple linear regression analysis using academic success (Y), Student Participation (X_2), Learning effort (X_3), Learning self-regulation (X_4), Achievement goal (X_5) and Learning self-efficacy (X_6) as predictor variables (independent variables). The specific results are as follows:

1. R Square: The coefficient of determination (R^2) of this model is 0.465, which means that the predictor variable (Learning motivation (X_1) to Learning self-efficacy (X_6)) can explain the predicted variable (probably Academic success (Y), although it is not explicitly stated) 46.5% variance. In other words, about 46.5% of the output variation in the model can be explained by the input (Learning motivation (X_1) to Learning self-efficacy (X_6)).

2. Adjusted R Square: The adjusted coefficient of determination is 0.451. Unlike the coefficient of determination, the adjusted coefficient of determination takes into account the number of predictor variables in the model. This value will be adjusted according to the number of predictor variables, especially in the case of more predictor variables, if the new predictor variables do not significantly improve the model interpretation, then the adjusted coefficient of determination may decrease. In this model, the adjusted coefficient of determination is not much different from the coefficient of determination, indicating that all the predictors added contribute somewhat to the model.

3. Std. The error of the Estimate: The estimated standard error of the model is 0.85223. This indicator provides a measure of the prediction error of the model, and the smaller the value, the higher the prediction accuracy of the model. In this model, this value is 0.58542, which means that the deviation of the model's predicted results from the actual results is about 0.58542 on average.

In general, this multiple regression model can explain the changes in the predicted variables to a certain extent, but there are also some prediction errors.

Table 4. An ANOVA table for a linear regression model.

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.607	6	11.268	32.878	000[b]
	Residual	77.797	227	.343		
	Total	145.404	233			

a. Dependent Variable: Academic success (Y)

b. Predictors: (Constant), Learning self-efficacy (X_5), Learning self-regulation (X_4), Learning motivation (X_1), s Student Participation (X_2), Learning effort (X_3), Learning motivation (X_1)

This is an ANOVA table for evaluating linear regression models. ANOVA is used to test whether at least one of all predictor variables (independent variables) in the model has a significant effect on the dependent variable (predicted variable). The specific description of the form is as follows:

1. Regression: This line provides the information predicted by the model. The "Sum of Squares" value is 67.607, which is the sum of squares between the predicted values produced by all predictor variables (Learning motivation (X_1) to Learning self-efficacy (X_6)) on the dependent variable (Academic success (Y)) and the mean of the dependent variable. A "df" value of 6 means there are 6 predictors in the model. The "Mean Square" value is 11.268, which is the result of dividing the "Sum of Squares" by "df", indicating the amount of variance that each predictor variable can explain on average.

2. Residual: This row provides information that the model failed to predict. The "Sum of Squares" value is 77.797, which is the sum of squares between the actual value of the dependent variable and the value predicted by the model, representing the variance that the model fails to explain. The "df" value is 227, which is the total number of observations (233) minus the number of predictors (6) minus 1 (the constant term). The "Mean Square" value is 0.343, which is the result of dividing the "Sum of Squares" by "df" and represents the average error for each observation in the model's predictions.

3. Total: This line gives the sum of the "Sum of Squares" (145.404) and the total degrees of freedom (233).

4. F value and significance (Sig.): The F statistic is the result of dividing the regression Mean Square by the residual Mean Square, which is 32.878. A significance level of .000 indicates that the F value of this model is statistically significant, that is, at least one predictor variable has a significant effect on the dependent variable.

Overall, the ANOVA results for this model show that at least one predictor variable (Learning motivation (X_1) to Learning self-efficacy (X_6)) has a significant effect on the dependent variable (Academic success (Y)), and this model explains part of the variance, but There is still a part of the variance that the model fails to explain.

Table 5. Multiple linear regression model coefficient table, showing the coefficient (B), standard error (beta), statistic (t) and significance level (Sig.) of the constant term.

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	Y	.565	.166	-	3.399	0.01
	X_1	.108	.039	.159	2.773	.006
	X_2	.211	.057	.201	3.724	.000
	X3	.120	.044	.153	2.735	.007
	X4	.127	.044	.160	2.896	.004
	X5	.127	.034	.199	3.729	.000
	X6	.115	.038	.171	3.016	.003

a. Dependent Variable: Academic success (Y)

This is a table of coefficients for a multiple linear regression model, listing each predictor variable (X_1 to X_6) along with Constant's coefficient (B), standard error, Beta, t-statistic, and significance level (Sig.).

1. Constant: The B value is 0.565, and the standard error is 0.166. The t statistic is 3.399, corresponding to a significance level of 0.001, much greater than 0.05. This means that the constant term has a significant effect, and if all predictors have a value of 0, then the

expected value of the dependent variable (Y) will be close to 0.

2. Learning motivation(X_1): The B value is 0.108, the standard error is 0.039, and the Beta value is 0.159, which means that when X_1 changes by one standard deviation, Y is expected to change by 0.159 standard deviations. The t statistic is 2.773, and the corresponding significance level is 0.006, which is lower than 0.05, which means that X_1 has a significant impact on Y.

3. Student Participation (X_2): The B value is 0.211, the standard error is 0.057, and the Beta value is 0.201, which means that when X_2 changes by one standard deviation, Y is expected to change by 0.201 standard deviations. The t statistic is 3.724, and the corresponding significance level is 0.000, which is lower than 0.05, which means that X_2 has a significant impact on Y.

4. Learning effort (X_3): The B value is 0.120, the standard error is 0.044, and the Beta value is 0.153, which means that when X_3 changes by one standard deviation, Y is expected to change by 0.153 standard deviations. The t statistic is 2.735, and the corresponding significance level is 0.007, which is lower than 0.05, which means that X_3 has a significant impact on Y.

5. Learning self-regulation (X_4): The B value is 0.127, the standard error is 0.044, and the Beta value is 0.160, which means that when X_4 changes by one standard deviation, Y is expected to change by 0.160 standard deviations. The t statistic is 2.896, and the corresponding significance level is 0.004, which is lower than 0.05, which means that X4 has a significant impact on Y.

6. Learning self-efficacy (X_5): The B value is 0.127, the standard error is 0.034, and the Beta value is 0.199, which means that when X_5 changes by one standard deviation, Y is expected to change by 0.199 standard deviations. The t statistic is 3.729, and the corresponding significance level is 0.000, which is lower than 0.05, which means that X_5 has a significant impact on Y.

7. Learning self-efficacy (X_6): The B value is 0.115, the standard error is 0.038, and the Beta value is 0.171, which means that when X_5 changes by one standard deviation, Y is expected to change by 0.171 standard deviations. The t statistic is 3.016, and the corresponding significance level is 0.003, which is lower than 0.05, which means that X_6 has a significant impact on Y.

Discussion

In this study, there are 6 factors related to the academic success of high school students, namely, learning motivation, student participation, learning effort, learning self-regulation, achievement goals, and learning self-efficacy.

1. The correlation number of learning motivation is .462, which proves that as the value of learning motivation increases, its correlation with academic success increases. Learning motivation is positively correlated with high school student's academic success. Students learning motivation, including intrinsic motivation and extrinsic motivation, will have an impact on academic success. with (Almighty C et al., 2021 : 652). research is consistent. Learning Motivation it involves developing and maintaining positive expectations and behaviors related to academic success (Almighty C et al., 2021 : 652).

2. The correlation number for student participation is .443 demonstrating that increasing the value of student participation increases its correlation to academic success. Student participation is positively correlated with academic success. Student participation has an impact on academic success. with (Ian Douglas et al., 2007 : 521). research is consistent.

Student engagement in the classroom is an important factor in academic success (Ian Douglas et al., 2007 : 521).

3. The correlation number of learning effort is .436, demonstrating that the value of learning effort increases and its correlation to academic success increases. Learning effort is positively correlated with academic success. Learning effort has an impact on academic success. with (Samuelsen, J. and Khalil, M. 2018 : 1747). research is consistent. Samuelsen, J. and Khalil, M. (2018 : 1747) The amount of time a student spends studying hard is positively correlated with student academic success.

4. The correlation number for learning self-regulation was .437 demonstrating that increasing the value of learning self-regulation increases its correlation to academic success. Learning self-regulation is positively associated with academic success. Students learning self-regulation has an impact on academic success. Consistent with research by (Maude Guilmette et al., 2019 : 8-15). Self-regulation strategies were positively associated with higher levels of academic success (Maude Guilmette et al., 2019 : 8-15).

5. The correlation number for the achievement goal is .429 demonstrating that increasing the value of the achievement goal increases its correlation to academic success. Achievement goals are positively correlated with academic success. Achievement goals have an impact on academic success. with (Verner-Filion & Gaudreau, 2010 : 181). research is consistent. Students with achievement goals have higher academic success.

6. The correlation number for learning self-efficacy is .467, which proves that as the value of learning self-efficacy increases, its correlation with academic success increases. Learning self-efficacy is positively correlated with academic success. Learning self-efficacy has an impact on academic success. Consistent with research by (Filiz Yalcin Tilfarlioglu 2011 : 1284). The results of Filiz Yalcin Tilfarlioglu (2011 : 1284) showed that self-efficacy positively impacts academic success.

There are 6 factors affecting the academic success of high school students, which are statistically significant at the 0.01 level, namely learning motivation, student participation, learning effort, learning self-regulation, achievement goals, and learning self-efficacy. Among them, the B value of student participation is the highest, and the B value of student participation is 0.200.

1. Student participation affects the academic success of high school students with a B value of .200, the highest B value in this study. Student participation is an integral part of a student's learning process. Academic performance, learning outcomes, knowledge acquisition and understanding, and academic success all require students to participate in learning. student success is linked to student participation, as maintained by Korobova and Starobin. (Korobova and Starobin 2015 : 72-85) Student participation is fundamental for student success in college. There is substantial evidence that class participation, no matter how crudely measured, is an important factor in academic success (Ian Douglas, Nicole D. Alemanne 2007 : 521). Students' activity, concentration, task completion, and sense of belonging in the classroom can improve students' academic performance, and student participation is also the basis for success. The more students participate in the activities, the more knowledge they understand, and they are often positive Students who participate have better grades and are more likely to succeed.

2. Achievement goals influence the academic success of high school students. The B value is .186. Achievement goals are a key determinant in the student learning process and have an impact on academic success. Set goals that are academically beneficial by understanding student achievement goals. students with goals can have higher academic

success (e.g., better results on an exam) than students with other types of achievement goals (Verner-Filion & Gaudreau, 2010 : 181). Achievement goals can realize the purpose of students in the learning process. Students with achievement goals can make students clearly understand the purpose and direction of the learning process, and they will have more belief in achievement in learning, that is to say, students who have achievement goals Can better grasp the direction of learning, the pursuit of the goal in the study, so as to achieve the goal. Achievement goals are also the purpose and reason for students to achieve academic success.

3. Learning self-efficacy influences the academic success of high school students. The value of B is .182. The higher the students' learning self-efficacy, the more confident they are in completing their academic tasks. In this way, you will be more confident in completing the good grades you want to achieve and the learning goals you want to achieve. self-efficacy predicts academic success, Self-efficacy is a significant predictor of academic success (Filiz Yalcin Tilfarlioglu 2011 : 1284). Self-efficacy is one of the best predictors of academic success (Stajkovic et al., 2018 : 238). Learning self-efficacy is very important to students in learning. Learning self-efficacy makes students more confident in completing their studies in learning, and more willing to accept challenging learning tasks in the learning process. Learning self-efficacy makes students more willing to work hard Learning is more capable of solving the tasks and difficulties faced in learning, and it is more likely to achieve good grades, which also greatly improves the probability of students' academic success.

4. Learning motivation affects the academic success of high school students. The B value is .163. learning motivation acts as one of the main keys to an individual's academic success (Rahardjanto et al., 2019 : 179-192). Learning motivation is very important in education. Learning needs to cultivate learning desire through learning motivation, and learning motivation will affect the content that students pay attention to in learning and the absorption and efficiency of knowledge. This is critical to a student's academic success. Learning motivation is a vital component of a student's academic success that can be triggered by various factors such as their desire to succeed, expectations, and rewards (Almighty C et al., 2021 : 654). Students learning motivation in learning and the belief in individual learning goals to strive to achieve results in learning, that is to say, the driving force for students to carry out learning activities, and to continue learning without being asked by others, is a continuous force, through motivation to achieve the target behavior of learning, all help themselves to achieve academic success.

5. Learning self-regulation affects the academic success of high school students. The B value is .158. The self-regulation of students' learning is the ability to have goals and plans in the learning process and to be able to allocate the learning time reasonably. According to the study's findings (Zimmerman, 2005 : 13-39), there is a substantial link between self-regulation and academic success. Pintrich (2000 : 452) found that students with self-regulation skills are more motivated toward academic success and learn better than other students. (Zimmerman & Schunk, 2012 : 58). Students with learning self-regulation have better self-control ability in learning, can use various learning strategies in learning, and can adjust their learning status, learning time, and learning emotions. It is clear that students have the ability to learn self-regulation to be more diligent and confident in the learning process. So learning self-regulation can promote academic success and has an impact on academic success.

6. Learning effort influences the academic success of high school students. The B value is .101. The student's learning effort is the time and energy that the student needs to invest in the learning process. In the learning process, students put a lot of time and energy into learning, which will greatly improve the probability of students acquiring knowledge and

achieving satisfactory results. Student engagement in learning also positively impacts student academic success. The time and energy students put into the learning process are willing to spend more time learning for a certain goal in learning. students who study hard are more likely to succeed.

Recommendations

Propose relevant suggestions for my research on the factors that affect the academic success of high school students.

Practical Recommendation

Educators should strengthen high school students' cognition and understanding of academic success. According to the development and changes in high school students' academic development, educators can carry out some relevant courses and educational activities that can help improve the academic success of high school students, and help high school students realize the importance of academic success.

Policy Recommendation

The education department and education work should attach great importance to the studies of high school students. They can strengthen teachers' teaching and investment in high school students, formulate different work systems and teaching roles, and develop according to their different understandings and cognitions in their studies. Tailored courses and lectures.

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