

THE ROLE OF SELF-EFFICACY AND LEARNING INDEPENDENCE IN IMPROVING LEARNING OUTCOMES OF VOCATIONAL STUDENTS

Maria Manurung

Faculty of Economics, Universitas Negeri Jakarta, Indonesia

E-mail: mariamanurung.08031980@gmail.com

Roni Faslah

Faculty of Economics, Universitas Negeri Jakarta, Indonesia

E-mail: ronifaslah@unj.ac.id

Suherdi

Faculty of Economics, Universitas Negeri Jakarta, Indonesia

E-mail: suherdi@unj.ac.id

ABSTRACT

The purpose of this study was to determine whether there is an effect of self-efficacy and learning independence simultaneously on learning outcomes. The research method used is quantitative method with data collection techniques through distributing questionnaires. The sampling technique used was Probability Sampling, and a sample of 104 students was obtained. The research location was at SMKN 22 Jakarta. The data analysis carried out is the classical assumption test, multiple linear regression and hypothesis testing using the SPSS program. The significance test of the individual parameters of the self-efficacy variable obtained a sig. value of 0.004, and the learning independence variable obtained a value of 0.000, so it can be interpreted that there is an influence between self-efficacy and learning independence on learning outcomes partially. The results of the simultaneous test, in the Anova table obtained a significance value of 0.000. This means that the variables of self-efficacy and learning independence have a simultaneous effect on learning outcomes. This study has provided a practical contribution where students need to increase their self-confidence and independent attitude in learning, so that they are expected to obtain good learning outcomes.

Keywords: Self-efficacy, Learning independence, Learning outcomes

ABSTRACT

Tujuan dilakukannya penelitian ini adalah untuk mengetahui apakah terdapat pengaruh efikasi diri dan kemandirian belajar secara simultan terhadap hasil belajar. Metode penelitian yang digunakan yaitu metode kuantitatif dengan teknik pengumpulan data dengan menyebarkan kuesioner. Teknik pengambilan sampel yang digunakan yaitu Probability Sampling, dan memperoleh sampel sebanyak 104 peserta didik. Lokasi penelitian dilaksanakan di SMKN 22 Jakarta. Analisis data yang dilakukan yaitu uji asumsi klasik, regresi linier berganda dan uji hipotesis dengan menggunakan program SPSS. Uji signifikansi parameter individual variabel efikasi diri diperoleh nilai sig. 0.004, dan variabel kemandirian belajar memperoleh nilai 0.000, maka dapat diartikan bahwa terdapat pengaruh antara efikasi diri dan kemandirian belajar terhadap hasil belajar secara parsial. Hasil uji simultan, pada tabel Anova memperoleh nilai signifikansi sebesar 0.000. Artinya, variabel efikasi diri dan kemandirian belajar berpengaruh secara simultan terhadap hasil belajar. Penelitian ini telah memberikan kontribusi secara praktis dimana bagi peserta didik dibutuhkan peningkatan rasa percaya diri dan sikap mandiri dalam belajar, sehinggadiharapkan memperoleh hasil belajar yang baik.

Kata kunci: Efikasi diri, Kemandirian belajar, Hasil belajar

INTRODUCTION

Education is a continuous and never-ending process that produces quality and continuity and aims to create a future human figure. Learning is a process that consists of writing, reading, listening, imitating, etc (Fauhah & Rosy, 2021). Learning is also a process in human personality that appears in the form of an increase in the quality and quantity of behavior both in terms of knowledge, understanding, attitudes, skills, and other abilities (Festiawan, 2020). So, it is concluded that learning is a process experienced by a person through interaction with his surroundings to gain knowledge, understanding, attitudes, skills, and other abilities.

The value of education lies in the learning outcomes of students. Grades are not the only form of learning outcomes, but skills and attitudes can be a measure of learning outcomes (Syachtiyani & Trisnawati, 2021). Learning outcomes can be achieved either alone or with the help of others. Learning outcomes are the results of a person's learning. These learning outcomes are related to changes in the personality of students. Moreover, the purpose of learning outcomes is to evaluate the successes and deficits of each individual student. This makes learning outcomes one of the goals of students' pursuit of knowledge. Student learning outcomes are determined by assessing several aspects and categories that become benchmarks for the achievement of student success. The regulation stipulated by the Minister of Education and Culture of the Republic of Indonesia No.23 of 2016 concerning Educational Assessment Standards article 3, that the assessment of student learning outcomes in primary and secondary education consists of several aspects, namely: (a) Attitude assessment is an activity carried out by educators whose purpose is to obtain descriptive information about the behavior of students, (b) Knowledge assessment is an activity that measures students' knowledge management, and (c) Skills assessment is an activity that measures students' ability to apply knowledge to specific tasks.

Based on pra-research, the students' learning outcomes in the subjects of Public Relations and Protocol Automation can be classified as unsatisfactory. Internal factors that influence student learning outcomes include self-efficacy. Students, as immature beings, need help, support, guidance, training and orientation to optimally develop their skills, talents and potential, especially to increase self-efficacy (Zagoto, 2019). Self-efficacy is the strength and determination of a student to overcome difficult situations during school, never give up, and solve problems in a timely manner. Efficient learners understand tasks, lessons, and assessments and manage their learning to succeed in various areas (Nurfadilah, 2019). Self-efficacy can be formed in humans by learning and developing things such as successful experiences, social role models, social persuasion, physical and emotional conditions (Damayanti, 2023). Self-efficacy can be developed in a person through learning and developing things such as experiences of success, social role models, social persuasion, and physical and emotional conditions.

Independent learning is one of the factors that lead to good learning outcomes Hockings et al. (2017). In this case, students use too many communication tools (mobile phones) when studying. Researchers have found that mobile phone use is addictive among students. For example, in question and answer discussions, students use mobile phones to look for direct answers and do not read books. This unconsciously creates a dependency that leads to a feeling of laziness and lack of independence. Many factors lead to students' grades in these subjects being unsatisfactory compared to their learning outcomes in other subjects. Factors thought to have an impact include less diverse teaching methods, low student interest in learning, low self-efficacy, and lack of student independence in learning (Pérez et al., 2019). This can be seen in students' grades in public relations and protocol automation.

The influencing factors that will be examined in this study are self-efficacy and learning independence. Self-efficacy is important for the development of learners' personalities in controlling their thoughts, feelings and actions (Marneli et al., 2020). Likewise with learning

independence, which expects learners to be able to personally solve problems, have strategies in learning, and be able to control themselves in thinking and acting (Lo & Hew, 2018). Previous research was mostly conducted in public schools and colleges, this research was conducted in vocational schools. Based on these problems, this study aims to determine the effect between self-efficacy and learning independence on learning outcomes.

LITERATURE REVIEW

Learning Outcomes

Learning outcomes are skills that learners acquire after receiving and applying instructions (Febryananda & Rosy, 2019). According to Ricardo and Meilani (2017) learning outcomes are a set of learning content that is conveyed to students during the learning process. It is an educational objective embedded in the learning process so that students can know, understand and apply the knowledge acquired. Aside from that (Nugraha et al., 2020) believes that learning outcomes are the skills students acquire through learning activities. In line with the opinion of Saputro et al. (2022) the definition of learning outcomes is the ability students have after receiving their learning experience, such as being able to express the material in a more concise, easy to understand form, being able to interpret and apply it."

Based on the opinions of these experts, it can be concluded that learning outcomes are behavioral changes and the accumulation of learning completeness that students achieve so that they can know, understand, present in easily understandable sentences and apply their knowledge and experience. Learning outcome indicators have three areas, that is (Straus et al., 2009), (1) The cognitive domain refers to knowledge, understanding, application, study, creation and evaluation; (2) Affective domain, which refers to attitudes, values and beliefs that play an important role in behavior change; and (3) Psychomotor area consisting of skills and self-development involved in the performance and practice of skill mastery.

Self-Efficacy

Humans are living beings who evolve in terms of both physical growth and thinking. Everyone has the desire to become a successful, wealthy person and to achieve their desires. The desire to succeed can be referred to as self-efficacy. Self-efficacy can motivate someone to work hard and persevere even when faced with obstacles, challenges, and ridicule time and again. A person's self-efficacy is a powerful determinant of effort, perseverance, strategy, and training for a person's future job performance. The meaning of self-efficacy is explained below. Puozzo and Audrin (2021) state that self-efficacy refers to the perceptions and beliefs that individuals have about their abilities and which they effectively mobilize to succeed in certain actions towards achieving a goal. Becker and Gable (2009) found that in this context, a strong personal sense of general self-efficacy is crucial for motivating first-year students because they have only a vague idea of what to expect academically. Another meaning according to Lunenburg (2011) states that self-efficacy (beliefs about one's ability to complete certain tasks) influences the tasks that employees learn and the goals they set for themselves. Self-efficacy also influences the effort and persistence of employees in learning difficult tasks. The four sources of self-efficacy are past performance, vicarious experience, verbal persuasion and emotional cues.

Based on the explanations and opinions of these experts, it can be concluded that self-efficacy is self-confidence, self-confidence and the ability to fulfill a responsibility, become motivation for completing challenging work and act according to the requirements to be successful in achieving goals. Self-efficacy indicators consist of (Bandura, 2006), (1) Difficulty level (size), which refers to the level of difficulty of the task to be completed; (2) The strength of a person's belief in their abilities; and (3) Range (in general), which indicates the extent of confidence in abilities.

Learning Independence

Independent learning is not individual learning, but learning requires students' independence to learn independently and develop the freedom to seek, acquire and understand knowledge that is not controlled by others. An independent person is one who is willing to take responsibility, take initiative, be brave, take risks and learn on their own. Independence can be a supporting factor in students' learning success. It has been proven that people who cannot learn independently also lack confidence in their future lives. According to Rahardja and La Sulo in Afriani (2019), independent learning is defined as learning activities that are driven by students' own will and responsibility. Learning independence can be measured by how much learning is provided, what is achieved, what is learned, where the source comes from, how it is achieved, and when and how learning success is measured (Hartini & Sumardi, 2019).

Another meaning of learning independence proposed by Febriana (2023) states that learning independence is a form of learning that gives students the opportunity to determine which learning goals, resources, and activities meet their needs. It can be concluded that independent learning is the efforts, processes and abilities of a student, guided by his own will, to independently carry out learning activities, tasks and responsibilities and to determine what will be achieved, what will be learned and where the source will come from, where it will come from and how it will achieve it. Indicators of learning independence are (Subekti & Jazuli, 2020), (1) Behave on your own initiative; (2) To be responsible; (3) Do not rely on other people; (4) Define strategies and goals; and (5) Assessment of learning outcomes.

Hypothesis

Based on the research objectives to be achieved and the literature review the hypotheses developed in this study are:

H1: There is an effect of self-efficacy (X) on student learning outcomes (Y).

H2: There is an effect of learning independence (X) on student learning outcomes (Y).

H3: There is an effect of self-efficacy and learning independence (X) on student learning outcomes (Y).

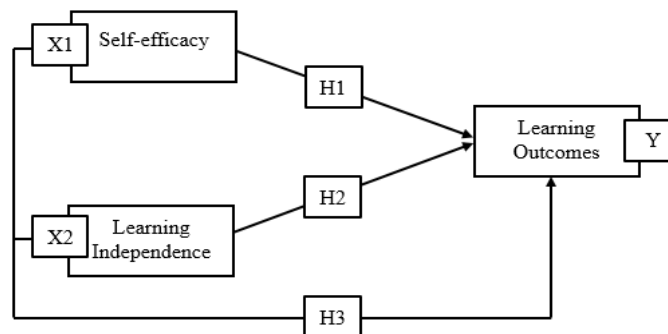


Figure 1. Conceptual Framework

METHOD

The research method used in this research is quantitative method. This study uses primary data from the results of distributing questionnaires with a Likert scale and using secondary data from student learning outcomes. The data processing method in this study is to use SPSS software version 25.0, for the independent variables, namely self-efficacy and learning independence, and the dependent variable is learning outcomes. The sample in this study amounted to 104 respondents from classes X, XI and XII majoring in Office Management Public Vocational High School (SMKN) 22 Jakarta. This method is the right choice for researchers because the researcher's goal is to determine the effect of these variables. The sampling technique used is probability sampling with a proportional stratified random

sampling approach. This research instrument uses a questionnaire with a Likert scale that has been tested for validity and reliability. The indicators in this study are the level of confusion, strength of belief and breadth of reach (Bandura, 2006). Criteria in learning independence include initiative, taking responsibility, not depending on others, setting strategies and goals, and evaluating learning outcomes (Subekti & Jazuli, 2020). The data analysis technique used is classical assumption test, multiple linear regression test and hypothesis testing with the help of SPSS program.

RESULTS AND DISCUSSION

Normality Test

Based on the results of the normality test shown in Table 1, the significance value obtained is 0.200. Since this value is greater than 0.05 ($0.200 > 0.05$), it can be concluded that the residual values are normally distributed. This indicates that the regression model meets the normality assumption, which is important for the validity of the results of the regression analysis performed.

Table 1. Normality Test

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		104
Normal Parameters ^{a,b}	Mean	0.000000
	Std. Deviation	306.296.437
Most Extreme Differences	Absolute	0.057
	Positive	0.057
	Negative	-0.040
Test Statistic		0.057
Asymp. Sig. (2-tailed)		0.200 ^{c,d}

Multicollinearity Test

Based on the analysis in Table 2, it is explained that the tolerance value is $0.428 > 0.10$, which means no multicollinearity occurs. So the VIF value is $2.337 > 10.00$, which means no multicollinearity occurs. Based on the decision making, a good regression model should not show any symptoms of multicollinearity.

Table 2. Multicollinearity Test

Coefficients ^a		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
Model		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	76.521	2.848		26.870	.000		
	Self-efficay	-.024	.088	-.038	-.275	.784	.428	2.337
	Learning Independence	.148	.049	.420	3.000	.003	.428	2.337

a. Dependent Variable: learning outcomes

Heteroscedasticity Test

Heteroscedasticity test aims to test whether in the regression model there is an inequality of variation from the residuals of one observation to another. A good model is that heteroscedasticity does not occur (Sahir and Koryati, 2021). Based on Table 3, the results of the heteroscedasticity test showed a significance value of 0.552 for the variable self-efficacy and a significance value of 0.731 for the variable learning independence. The values of these two variables are greater than 0.05, so that the Glejser test allows us to conclude that heteroscedasticity does not occur in the regression model.

Table 3. Heteroscedasticity Test

Coefficients		Non-standardized coefficients		Standardized coefficient	Q	Sig.	Collinearity Statistics	
Model		B	Std. Error	beta			Tolerance	VIF
1	(Constant)	4.665	1.598		2.920	.004		
	Self-efficacy	-.030	.050	-.090	-.596	.552	.428	2.337
	Learning independence	-.010	.028	-.052	-.345	.731	.428	2.337

a. Dependent variable: learning outcomes

Linearity Test

Based on Table 4, the Sig deviation value from linearity is determined, namely $0.302 > 0.05$. The Fcount value is $1.166 < F_{table} 1.864$. Ftable is found by using the formula (df) Deviation from Linearity; Within Groups. Based on the SPSS results, it is known that the value (df) is (22; 80). The distribution of Ftable values at a significance of 5% or 0.05, the Ftable value is 1.864. Because the Fcount value is smaller than Ftable, it is concluded that there is a significant linear relationship between the self-efficacy variable and learning outcomes. So, based on the results of the significance value and the Fcount value with Ftable, it is found that there is a significant linear relationship between the self-efficacy variable and learning outcomes.

Table 4. Linearity Test Self-efficacy on Learning Outcomes

ANOVA			Sum of Squares	df	Means Square	F	Sig.
Learning outcomes * Self-efficacy	Between groups	(Combined) Linearity	344.393	23	14.974	1.503	.094
		Deviation from linearity	88.933	1	88.933	8.927	.004
			255.460	22	11.612	1.166	.302
	In groups		796.982	80	9.962		
	In total		1141.375	103			

Based on Table 5, Deviation from Linearity Sig. value is $0.459 > 0.05$. The F count value is $1.021 < F_{table} 1.688$. Ftable is found by using the formula (df) Deviation from Linearity; Within Groups. Based on the SPSS results, it is known that the value (df) is (33; 69). The distribution of Ftable values at a significance of 5% or 0.05, the Ftable value is 1.688. Because the Fcount value is smaller than Ftable, it is concluded that there is a significant linear relationship between the learning independence variable and learning outcomes. So, based on the results of the significance value and the Fcount value with Ftable, it is found that there is a significant linear relationship between the self-efficacy variable and learning outcomes.

Table 5. Linearity Test Self-efficacy on Learning Outcomes

ANOVA			Sum of Squares	df	Means Square	F	Sig.
Learning outcomes * Learning independence	Between groups	(Combined) Linearity	491.538	34	14.457	1.535	.066
		Deviation from linearity	174.333	1	174.333	18.511	.000
			317.205	33	9.612	1.021	.459
	In groups		649.837	69	9.418		
	In total		1141.375	103			

Multiple Linear Regression

Based on the Table 6, it is known that the significance value (Sig.) in the F test is 0.000. Because the significance (Sig.) $0.000 < 0.05$, then in accordance with the basis for decision

making in the F test it is concluded that self-efficacy and learning independence simultaneously (together) have a significant effect on learning outcomes. Thus, the meaning of the requirement for the coefficient of determination in multiple linear regression analysis has been fulfilled.

Table 6. Anova

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	175.055	2	87.527	9.148	.000 ^b
	Residual	966.320	101	9.568		
	Total	1141.375	103			

a. Dependent Variable: Learning Outcomes
 b. Predictors: (Constant). Learning Independence. Self-efficacy

Table 7. Coefficients

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	75.118	.079		956.834	.000
	Self-efficacy	.015	.001	.084	17.374	.000
	Learning Independence	.135	.001	.975	202.612	.000

a. Dependent Variable: Learning Outcomes

The Coefficients table provides information about the regression equation and whether or not there is an effect of the self-efficacy variable and learning independence partially (individually) on the learning outcome variable, as shown in Table 7. The constant value (α) has a positive value of 75.118. The regression coefficient value for the self-efficacy variable is 0.015 and for the learning independence variable is 0.135. The positive sign indicates a unidirectional influence between the independent variable and the dependent variable. If the independent variable increases, the learning outcome variable will increase (Sugiyono, 2013). The self-efficacy regression coefficient of 0.015, states that if the value of self-efficacy increases by one unit, the learning outcomes will increase by 0.015 or 1.5%. The regression coefficient of learning independence is 0.135, stating that if the value of learning independence increases by one unit, the learning outcomes will increase by 13.5%.

Therefore, based on multiple linear regression analysis, it explains that this analysis aims to test whether there is an influence between variables expressed in the form of an equation. Coefficients analysis concluded that there is a partial influence of the self-efficacy variable on learning outcomes and the learning independence variable on learning outcomes. The Anova table shows that there is a significant influence between the variables of self-efficacy and learning independence on learning outcomes, and the requirements for the coefficient of determination in multiple linear regression analysis have been met.

T-test

If the significance value < 0.05 probability, there is an influence between variables, and if the significance value > 0.05 probability, there is no influence between variables. Based on Table 8, the self-efficacy variable can have a significance value of 0.004. Because the Sig value $0.004 < 0.05$, it is concluded that there is an influence between the independent variable (self-efficacy) and the dependent variable (learning outcomes). Based on Table 9, it is known that the significance value of the learning independence variable is 0.000. Because the Sig value $0.000 < 0.05$, it is concluded that there is an influence between the independent variable (learning independence) and the dependent variable (learning outcomes).

Table 8. Self-efficacy T-test Coefficients for Learning Outcomes

Coefficients					
Model	Non-standardized Coefficients		Standardized Coefficient	Q	Sig.
	B	Std. Error	beta		
1 (Constant)	78.473	2.879		27.254	.000
Self-efficacy	.176	.060	.279	2.936	.004

A. Dependent variable: learning outcomes

Table 9. Learning Independence T-test Coefficients for Learning Outcomes

Coefficients					
Model	Non-standardized Coefficients		Standardized Coefficient	Q	Sig.
	B	Std. Error	beta		
1 (Constant)	786.161	2.517		30.263	.000
Learning independence	.137	.032	.391	4.288	.000

A. Dependent variable: learning outcomes

Simultaneous Test (F)

Based on Table 10, it can be seen that Sig. value is 0.000. Because the Sig. value is $0.000 < 0.05$, this is consistent with the basis of F-test decision that there is a significant influence between the variables self-efficacy and learning independence on learning outcomes. From the Anova table, it is known that the calculated F value is 9.148. F table is obtained from the value of the statistical table at a significance of 5% or 0.05. In the F distribution table 0.05, the value of F table = (2;102) obtained a value of 3.09. Based on the comparison of the calculated F value with the F table, where $F \text{ count } 9.148 > F \text{ table } 3.09$, the hypothesis is accepted. Based on the F test that has been carried out, it is concluded that there is a significant influence between the variables of self-efficacy and learning independence together on the learning outcomes variable.

Table 10. Simultaneous Test Table (F)

ANOVA					
Model	Sum of Squares	df	Means Square	F	Sig.
Regression	175.055	2	87.527	9.148	.000b
1 rest	966.320	101	9.568		
In total	1141.375	103			

Determination Coefficient Test

Based on the Model Summary, as shown in Table 11, the coefficient of determination (R Square) is 0.153. This R Square value of 0.392 comes from multiplying the correlation coefficient (R) value, namely $0.392 \times 0.392 = 0.154$ or equal to 15.4%. So, the variables of self-efficacy and learning independence simultaneously affect learning outcomes by 15.4%.

Table 11. Model Summary Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.392 ^a	.153	.137	3.093

a. Predictors: (Constant). Learning Independence. Self-efficacy

Discussion

The research results show that factors that affect students' learning outcomes may be internal factors, namely self-efficacy and learning independence. When student doing learning, it is also necessary to check self-efficacy to determine students' confidence during learning (Marneli et al., 2020). One of the internal factors that can influence students' academic success is independence (Oktarin et al., 2018). Therefore, it is important to understand that teachers

can play a role and take responsibility in helping students to become more confident and independent in their learning, which will enable students to achieve good academic results.

The results of this research also show that self-efficacy and learning independence have an impact on learning outcomes. This is consistent and explains that one of the factors that improve learning is self-efficacy (Hernawati et al., 2016). Self-efficacy and learning independence are factors that have a significant impact on learning outcomes (Rachman et al., 2022). The research results show that although students are faced with difficult tasks, they have different beliefs and try to find solutions to complete the task. When students are able to do things themselves, do not depend on others and take responsibility, optimal learning outcomes are achieved. This is consistent with the theory that individuals believe in their abilities and that the development of learning autonomy influences good learning outcomes and requires improvement (Lo & Hew, 2018). Therefore, the previous study results are consistent with the results of this study, which states that independent variables are required in learning, namely self-efficacy and learning independence. The research results show that self-efficacy and learning autonomy have a significant impact on students' academic performance.

CONCLUSION AND RECOMMENDATION

Conclusion

Based on the formulation of problems, hypotheses, and data analysis of the research results, the conclusions are obtained, namely; (1) There is a significant influence between self-efficacy variables on learning outcomes variables; (2) There is an influence between the learning independence variable on the learning outcome variable; and (3) In accordance with the basis for decision making in the simultaneous test, it is concluded that the variables of self-efficacy and learning independence simultaneously (together) have a significant effect on the learning outcomes variable. Self-efficacy and learning independence are factors that can affect student learning outcomes. Based on the results of the data analysis test results that have been carried out by researchers, the research hypothesis is accepted. In the sense that there is a significant influence between self-efficacy on learning outcomes, there is a significant influence between learning independence on learning outcomes and there is a significant influence between self-efficacy and learning independence on learning outcomes. In previous studies with the same topic and theory but using different research subjects, it was stated that the theory explained the phenomenon being investigated.

Recommendation

In conducting the preparation of this research, the author experienced limitations that may need to be considered to improve and improve future research. Some of the limitations of this study include: (1) The small number of samples or respondents in the study, of course, is still insufficient to describe the actual situation, as well as the limitations of generalizing the results to a wider population due to the focus on certain groups; (2) In the data collection process, the information provided by respondents sometimes still does not show the actual opinions of respondents, due to differences in thinking, understanding, assumptions, and honesty factors in filling out the questionnaire; and (3) This study only uses three variables, namely self-efficacy, learning independence and learning outcomes. The recommendations for future researchers are as follows: (1) For further researchers, it is recommended to take a larger sample in order to obtain better data accuracy; (2) Conduct ongoing research to see and assess any changes in respondent behavior; (3) Future researchers are expected to add other variables that may also influence, such as variables of interest in learning, attitudes, self-concept and motivation from parents, family, school and society.

REFERENCES

- Afriani, B. R. (2019). Hubungan Intensitas Pemberian Tugas Rumah (PR) dengan Kemandirian Belajar Siswa Kelas II SD. *Jurnal Pendidikan Guru Sekolah Dasar*, 8(6), 577–587. Retrieved from <https://journal.student.uny.ac.id/index.php/pgsd/article/view/15002>
- Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-Efficacy Beliefs of Adolescents*, 5, 307–337. <https://doi.org/10.1017/CBO9781107415324.004>
- Becker, S. P., & Gable, R. K. (2009). *Self-Efficacy and Post-Secondary First-Term Student Achievement*. Higher Education Administration Commons. Retrieved from <https://scholarsarchive.jwu.edu/cgi/viewcontent.cgi?article=1000&context=highered>
- Damayanti, S. (2023). The Influence of Need for Achievement and Self Efficacy on Student Entrepreneurship Intention. *International Journal of Research and Review*, 10(1), 513–519. <https://doi.org/10.52403/ijrr.20230159>
- Fauhah, H., & Rosy, B. (2021). Analisis Model Pembelajaran Make A Match terhadap Hasil Belajar Siswa. *Jurnal Pendidikan Administrasi Perkantoran*, 9(2), 321–334. <https://doi.org/10.26740/jpap.v9n2.p321-334>
- Febriana, D. (2023). *Hubungan Creative Thinking Dengan Kemandirian Belajar Peserta Didik di MIN 11 Bandar Lampung*. UIN Raden Intan Lampung.
- Febryananda, I. P., & Rosy, B. (2019). Pengaruh Metode Pembelajaran Sociodrama terhadap Hasil Belajar Siswa Kelas XI OTKP pada Kompetensi Dasar Menerapkan Pelayanan Prima kepada Pelanggan di SMKN 2 Kediri. *Jurnal Pendidikan Administrasi Perkantoran*, 7(04), 170–174. Retrieved from <https://ejournal.unesa.ac.id/index.php/JPAPUNESA/article/view/31396>
- Festiawan, R. (2020). *Belajar dan pendekatan pembelajaran*. Universitas Jenderal Soedirman.
- Hartini, S., & Sumardi, S. (2019). Penilaian Kemandirian Belajar Matematika Madrasah Tsanawiyah. *Manajemen Pendidikan*, 13(2), 175–182. <https://doi.org/10.23917/jmp.v13i2.7485>
- Hernawati, D., Amin, M., Irawati, M. H., & Indriwati, S. E. (2016). Analisis Self Efficacy Mahasiswa Pada Matakuliah Zoologi Vertebrata. *Prosiding Seminar Nasional Pendidikan Biologi dan Sainstek*, 1–9. Retrieved from <https://proceedings.ums.ac.id/index.php/snpbs/article/view/652>
- Hockings, C., Thomas, L., Ottaway, J., & Jones, R. (2017). Independent learning – what we do when you’re not there. *Teaching in Higher Education*, 23(2), 145–161. <https://doi.org/10.1080/13562517.2017.1332031>
- Lo, C. K., & Hew, K. F. (2018). A comparison of flipped learning with gamification, traditional learning, and online independent study: the effects on students’ mathematics achievement and cognitive engagement. *Interactive Learning Environments*, 28(4), 464–481. <https://doi.org/10.1080/10494820.2018.1541910>
- Lunenburg, F. C. (2011). Self-Efficacy in the Workplace: Implications for Motivation and Performance. *International Journal of Management, Business, and Administration*, 39(12), 552–557. <https://doi.org/10.1177/216507999103901202>
- Marneli, D., Dirma, H., & Delfita, R. (2020). Korelasi Self Efficacy Dengan Hasil Pembelajaran Biologi di SMA 1 Rambatan Kabupaten Tanah Datar Sumatera Barat. *Simbiosis*, 9(2), 158–172. <https://doi.org/10.33373/sim-bio.v9i2.2677>
- Nugraha, S. A., Sudiatmi, T., & Suswandari, M. (2020). Studi Pengaruh Daring Learning Terhadap Hasil Belajar Matematika Kelas IV. *Jurnal Inovasi Penelitian*, 1(3), 265–276. <https://doi.org/10.47492/jip.v1i3.74>
- Nurfadilah, S. (2019). Kemandirian Belajar Siswa dalam Pembelajaran Matematika. *Prosiding Sesiomadika*, 2(1), 1214–1223.
- Oktarin, S., Auliandari, L., & Wijayanti, T. F. (2018). Analisis Kemandirian Belajar Siswa pada Mata Pelajaran Biologi Kelas X SMA YKPP Pendopo. *Bioeduscience*, 2(2), 104–

117. <https://doi.org/10.29405/j.bes/22104-1152493>
- Pérez, M., Serrano-Bedia, A. M., & García-Piqueres, G. (2019). An analysis of factors affecting students' perceptions of learning outcomes with Moodle. *Journal of Further and Higher Education*, 44(8), 1114–1129. <https://doi.org/10.1080/0309877X.2019.1664730>
- Puozzo, I. C., & Audrin, C. (2021). Improving self-efficacy and creative self-efficacy to foster creativity and learning in schools. *Thinking Skills and Creativity*, 42, 10096. <https://doi.org/10.1016/j.tsc.2021.100966>
- Rachman, S. A., Mustofa, R. F., & Diella, D. (2022). Hubungan Self Efficacy dan Kemandirian Belajar Terhadap Hasil Belajar Siswa Pada Materi Sel. *BIO-EDU: Jurnal Pendidikan Biologi*, 7(1), 51–60. <https://doi.org/10.32938/jbe.v7i1.1888>
- Ricardo, R., & Meilani, R. I. (2017). Impak Minat dan Motivasi Belajar Terhadap Hasil Belajar Siswa. *Jurnal Pendidikan Manajemen Perkantoran*, 2(2), 79-86. <https://doi.org/10.17509/jpm.v2i2.8108>
- Sahir, S. H., & Koryati, M. S. T. (2021). *Metodologi Penelitian*. Penerbit KBM Indonesia.
- Saputro, S. H., Mutaji, & Arianto, F. (2022). The Impact of Communication Skills on Understanding Learning Outcomes for Nursing Students. *International Journal of Social Science And Human Research*, 05(11), 4913–4916. <https://doi.org/10.47191/ijsshr/v5-i11-13>
- Straus, S. E., Tetroe, J., & Graham, I. D. (2009). *Knowledge Translation in Health Care: Moving from Evidence to Practice*. Wiley. <https://doi.org/10.1002/9781444311747>
- Subekti, F. E., & Jazuli, A. (2020). Peningkatan Kemampuan Pemecahan Masalah dan Kemandirian Belajar Mahasiswa Melalui Pembelajaran Berbasis Masalah. *JNPM (Jurnal Nasional Pendidikan Matematika)*, 4(1), 13-21. <https://doi.org/10.33603/jnpm.v4i1.2687>
- Sugiyono. (2013). *Metode Penelitian Kuantitatif Dan Kualitatif Serta R&D*. Alfabeta.
- Syachtiyani, W. R., & Trisnawati, N. (2021). Analisis Motivasi Belajar dan Hasil Belajar Siswa di Masa Pandemi Covid-19. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 2(1), 90–101. <https://doi.org/10.37478/jpm.v2i1.878>
- Zagoto, S. F. L. (2019). Efikasi Diri Dalam Proses Pembelajaran. *Jurnal Review Pendidikan Dan Pengajaran*, 2(2), 386–391. <https://doi.org/10.31004/jrpp.v2i2.667>

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

