THE EFFECTS OF EMOTIONAL INTELLIGENCE AND SELF-EFFICACY ON LEARNING INDEPENDENCE IN SENIOR HIGH SCHOOL STUDENTS

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ARTICLE INFO:	ABSTRACT
	The purpose of this study was to examine the effect of emotional intelligence on learning independence in class XI students of SMA Negeri 20 Surabaya, examine the effect of self-efficacy on learning independence in class XI students of SMA Negeri 20 Surabaya, and examine the effect of emotional intelligence and self-efficacy on learning independence in class XI students. SMA Negeri 20 Surabaya, and examine the effect of emotional intelligence and self-efficacy on learning independence in class XI SMA Negeri 20 Surabaya. on learning independence in class XI students of SMA Negeri 20 Surabaya. All students of class XI group C SMA Negeri 20 as many as 72 students were determined as the population in this study. The technique sampling technique used is a simple random sampling technique and a sample of 33 students is determined. determined a sample of 33 students. The approach in this study is a quantitative approach. Method collection method used is a questionnaire method with a data measurement scale in the form of a Likert scale. Likert scale. The hypothesis test used is an analytical test conducted with two stages of testing, namely the individual (partial) stage using the simple linear regression test and the joint (simultaneous) stage using the simple linear regression test. simple linear regression and the joint stage (simultaneous) using multiple linear regression tests. multiple linear regression tests. The result of this study is that there is no effect of emotional intelligence on learning independence in class XI high school students. State 20 Surabaya. There is a very significant influence of self-efficacy on learning independence in class XI students of SMA Negeri 20 Surabaya. There is a very significant effect of emotional intelligence and self-efficacy on learning independence in class XI SMA Negeri 20 Surabaya. learning independence in class XI students of SMA Negeri 20 Surabaya. This is an open access article under the CC–BY-SA license.

INTRODUCTION

One of the learning objectives in mathematics learning outcomes in the independent curriculum is an independent attitude. Developing independence is one of the goals of mathematics subjects as its relevance to the Pancasila student profile (Kemdikbudristek, 2022)

From the pre-research data conducted at SMA Negeri 20 Surabaya, only 12% of students have the initiative to learn. Ambiyar (2020) also said that many high school students are not sure of their abilities, lack effort in doing exercises, and only follow the answers they get from their friends. For this reason, it is necessary to increase the learning independence of students by paying attention to each indicator of learning independence (Rahayu & Aini, 2021).

The factors that affect learning independence are divided into exogenous and endogenous factors. Endogenous factors include a person's physiological and psychological well-being. Physiological factors include a person's physical condition. While psychological factors include attention, intelligence, interest, motivation, talent, cognitive, motive, and reasoning. (Sama' et al., 2021)

Intelligence or intelligence is a psychological factor that affects learning independence. The addition of individual emotional intelligence will be accompanied by the addition of learning independence (Afero & Adman, 2016) . In line with Asar who said that emotional intelligence contributes an influence of 44% to learning independence (Ashar et al., 2020), as well as Lubis' statement that emotional intelligence has a positive influence on learning independence, when emotional intelligence is good, so is the learning independence that you have (Lubis et al., 2015).

In addition to intelligence, psychological factors that affect learning independence are attention, interest, motivation, talent, cognitive, motive, and reasoning (Sama' et al., 2021). Cob (in Diryatika, 2023) said the factors that affect learning independence are self-efficacy, motivation, and goals. In line with research Yulyani (2021) that says that self-efficacy plays an important role in increasing

learning independence because self-efficacy is a belief in the potential to be independently actively involved in learning activities. Low self-efficacy makes individuals stay away from many tasks in learning while high self-efficacy makes individuals feel challenged and have great desire and try to study diligently in order to be able to complete the tasks given (Adnyana, 2023).

Based on the above description, the purpose of this study is to test the influence of emotional intelligence on learning independence in grade XI students of SMA Negeri 20 Surabaya, to test the influence of self-efficacy on learning independence in grade XI students of SMA Negeri 20 Surabaya, and to test the influence of emotional intelligence and self-efficacy on learning independence in grade XI students of SMA Negeri 20 Surabaya.

This research was conducted at SMA Negeri 20 Surabaya because previously a pre-research had been conducted and it was found that only 12% of students had initiative in learning. Previous research has been conducted, but this study wants to simultaneously prove the influence of emotional intelligence and self-efficacy on learning independence.

METHOD

All students of class XI group C of SMA Negeri 20 as many as 72 students were determined as the population in this study. The sampling technique used is a simple random sampling technique whereas the research sampling uses a simple random method. The sample in this study is 33 students.

This study used 2 independent variables (independent variables), namely emotional intelligence and self-efficacy, and 1 dependent variable (bound variable), namely learning independence. The relationship between the two types of variables is that the bound variable is influenced by the independent variable which in this case emotional intelligence and self-efficacy (the independent variable) affect learning independence (the bound variable).

The approach in this study is in the form of a quantitative approach, namely the process of acquiring knowledge by using data in the form of numbers as a tool to find information about what you want to know (Parhan & Sutedja, 2019). In this research, the information or data obtained is symbolized in the form of numbers or qualitative data. The type of research used is ex-post facto research, which is to examine events that have occurred to identify factors that influence the occurrence of these events.

The collection method used in this study is the questionnaire method. The data measurement scale used in this study is a Likert scale measurement that displays the category, ranking, distance, and comparison of the variables measured. The Likert scale is used to measure an individual's attitudes, opinions, and perceptions towards social phenomena (Purwanza et al., 2020). In this research, a Likert scale with 4 levels was used to avoid uncertain answers. The data obtained from the results of this study are in the form of questionnaire scores for the variables of emotional intelligence, self-efficacy, and learning independence. The data is processed to prove and test the hypothesis proposed in the formulation of the problem.

The hypothesis test used in this study is an analytical test carried out with two stages of testing, namely the individual stage (partial) using a simple linear regression test and the joint stage (simultaneous) using a multiple linear regression test. Requirements testing is required before conducting hypothesis testing. The requirements tests that will be used in this study include data normality tests, homoscedasticity tests, linearity tests, multicollinearity tests, and autocorrelation tests.

RESULTS AND DISCUSSION

Questionnaire Score Data

The following is the score data obtained from the questionnaire that has been shared and filled out by students. The emotional intelligence variables obtained a minimum score of 70, a maximum score of 119, a mean of 90.12, a standard deviation of 7.86, and a variance of 94.110. The self-efficacy variables obtained a minimum score of 47, a maximum score of 81, a mean of 62.42, a standard deviation of 8.739, and a variance of 76.377. The learning independence variable obtained a minimum score of 44, a maximum score of 72, a mean of 56.52, a standard deviation of 7.168, and a variance of 51.383.

Prerequisite Test

The results of the normality test showed the value of Sig. the emotional intelligence variable was 0.200, the self-efficacy variable was 0.097, and the learning independence variable was 0.200. Each variable has a Sig value $>\alpha=0,05$, so it can be concluded that each variable in this study is normally distributed.

The results of the homoscedasticity test showed that the variables of emotional intelligence and self-efficacy were 0.625 and 0.460. Since the Sig. value of the two independent variables is greater than = 0.05, it can be concluded that the variant of the residual is homogeneous.α

The results of the linearity test were Deviation from Linearity Sig. The relationship between emotional intelligence and learning independence has a Sig. value of 0.252, the relationship between self-efficacy and learning independence has a Sig. value of 0.805, the relationship between emotional intelligence and self-efficacy has a value of 0.424. Since each relationship between 2 variables has a Deviation from Linearity Sig$>\alpha=0,05$. value, it can be concluded that the relationship between each 2 variables has a linear relationship.

The results of the multicollinearity test showed the results of the Tolerance values of the variables of emotional intelligence (x1) and self-efficacy (x2) on learning independence (y) with values of 0.697 and 0.697. Meanwhile, the VIF values of the variables of emotional intelligence and self-efficacy on learning independence were 1,434 and 1,434. Because the Tolerance value is greater than 0.1 and the VIF value is less than 10.0, it is concluded that there is no multicollinearity, and regression tests can be performed.

The results of the autocorrelation test are known to Asymp. Sig. (2-tailed) is valued at 0.291. Due to the value of Asymp. Sig. (2-tailed) is greater than 0.05, so the variable used has no autocorrelation.

Hypothesis Test

Based on the results of the first hypothesis test, a regression equation is found $y=38,412+0,201x$, the t-value and the Sig. value of the t-test is also known from the t-test which is depicted with the following curve:
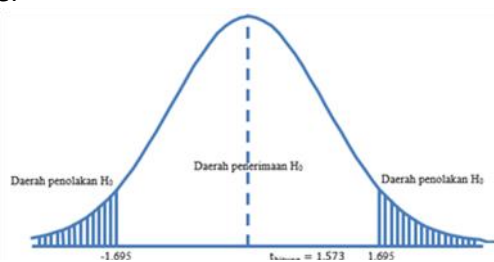

Figure 1 First Hypothesis Curve

In figure 1, it is known that tcal = 1.573 is in the receiving area H0. Because the calculation is in the area of H0 acceptance and value Sig.=0,126>α=0,05, it can be interpreted that there is no influence of emotional intelligence (x1) on learning independence (y). Emotional intelligence (x1) only had an influence of 7.4% on learning independence and the remaining 92.6% was influenced by other factors such as concept understanding, mathematical appreciation, exercise, motivation, environmental support, and physiological conditions.

Based on the results of the second hypothesis test, a regression equation is found $y=21,120+0,567x$, the t-value and the Sig. value of the t-test is also known from the t-test which is depicted with the following curve:

Figure 1 Second Hypothesis Test Curve

In figure 2, it is known that tcal = 5.327 is in the rejection area H0. Because the calculation is in the area of rejection of H0

and the value Sig.=0,000<α=0,05 even 0,000<α=0,01, it can be interpreted that there is a very significant influence of self-efficacy (x2) on learning independence (y). Self-efficacy (x2) had an influence of 47.8% on learning independence (y) and the remaining 52.2% was influenced by other factors such as concept understanding, mathematical appreciation, exercise, motivation, environmental support, and physiological conditions.

Based on the results of the third hypothesis test, a regression equation is found $y=125,424+0,751x_1-1,198x_2$, the F-value and the Sig. value of the F-test are also known which are depicted with the following curve:
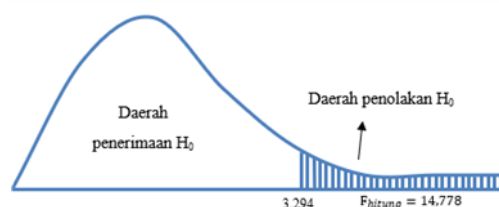

Figure 3 Third Hypothesis Test Curve

In figure 3, it is known that Fcal = 14.778 is in the rejection area H0. Because Fcalung is in the area of rejection of H0 and values Sig.=0,000<α=0,05 even 0,000<α=0,01, it can be concluded that there is a very significant influence of emotional intelligence (x1) and self-efficacy (x2) on learning independence (y). Simultaneously, emotional intelligence (x1) and self-efficacy (x2) had an influence of 49.6% on learning independence (y) and the remaining 50.4% were influenced by other factors such as concept understanding, mathematical appreciation, exercise, motivation, environmental support, and physiological conditions.

The results of the first hypothesis test are different from previous studies. Research Susilo (2021) states that emotional intelligence influences learning independence, students with emotional intelligence are more likely to be able to acquire the willingness to learn without coercion from others. Research Dalimunthe (2019) also says that students who have emotional intelligence are more able to control and regulate themselves, which makes emotional intelligence able to affect learning independence. The difference

in the results of this study is based on the difference in research respondents and the diversity of respondents, the difference in research time, and the researcher's limited understanding of emotional intelligence and learning independence.

The results of the second hypothesis test are in line with the research Laili (2021) which states that 59.3% of the influence of self-efficacy on learning independence. Self-efficacy is able to generate optimism and help students develop their knowledge independently without coercion from others with effective learning strategies (Zahara, 2019). In addition, self-efficacy supports persistence in an effort to achieve goals in learning, so learning independence emerges (Sari et al., 2018).

The results of the third hypothesis test are in line with Dalimunthe (2019) those that state that emotional intelligence and self-efficacy increase students' learning independence, the higher the emotional intelligence and self-efficacy, the higher the learning independence they have. Emotional intelligence and self-efficacy can act independently to make choices and make decisions. Research Saragih (2023) states that emotional intelligence affects students' learning independence. This is shown by the tcal-value greater than ttable = 1.661 which is 2.135. Saragih's research also stated that self-efficacy affects students' learning independence, which is shown by a tcal value greater than ttable = 1.661, which is 3.967.

CONCLUSION

Based on the results of the hypothesis test, it can be concluded that there is no influence of emotional intelligence on learning independence in grade XI students of SMA Negeri 20 Surabaya. There is a very significant influence of self-efficacy on learning independence in grade XI students of SMA Negeri 20 Surabaya. There is a very significant influence of emotional intelligence and self-efficacy on learning independence in grade XI students of SMA Negeri 20 Surabaya.

REFERENCES

Adnyana, I. made P. (2023). Pengaruh Efikasi Diri Dan Motivasi Belajar Terhadap Kemandirian Belajar (Studi Kasus Mahasiswa STABN Sriwijaya Tangerang Banten). JIMPS: Jurnal Ilmiah Mahasiswa Pendidikan Sejarah, 8(3), 5457–5468.

Afero, B., & Adman, A. (2016). Peran Kecerdasan Emosional Sebagai Faktor Yang Mempengaruhi Kemandirian Belajar Siswa. Jurnal Pendidikan Manajemen Perkantoran, 1(1), 215. https://doi.org/10.17509/jpm.v1i1.3390

Ambiyar, A., Aziz, I., & Delyana, H. (2020). Hubungan Kemandirian Belajar Siswa Terhadap Kemampuan Pemecahan Masalah Matematis Siswa. Jurnal Cendekia : Jurnal Pendidikan Matematika, 4(2), 1171–1183. https://doi.org/10.31004/cendekia.v4i2.364

Ashar, D. S., Aspin, A. A., & Herik, E. H. E. (2020). Pengaruh Kecerdasan Emosional Terhadap Kemandirian Belajar Siswa Kelas VIII SMP negeri 9 kendari. Jurnal Sublimapsi, 1(3). https://doi.org/10.36709/sublimapsi.v1i3.13892

Dalimunthe, L. R. I., Lubis, S. A., & Aziz, A. (2019). Hubungan Antara Kecerdasan Emosional dan Kepercayaan Diri dengan Kemandirian Belajar Siswa di SMP Negeri 9 Tebing Tinggi. Tabularasa: Jurnal Ilmiah Magister Psikologi, 1(2), 161–170. https://doi.org/10.31289/tabularasa.v1i2.270

Diryatika, E., & Armiati, A. (2023). Pengaruh Efikasi Diri (Self Efficacy) Terhadap Kemandirian Belajar Siswa. Jurnal Ecogen, 6(1), 110. https://doi.org/10.24036/jmpe.v6i1.14404

KEMDIKBUDRISTEK. (2022). Keputusan Kepala Badan Standar, Kurikulum, Dan Asesmen Pendidikan Kementerian Pendidikan, Kebudayaan, Riset, Dan Teknologi Nomor 003/H/KR/2022 Tentang Perubahan Atas Keputusan Kepala Badan Standar, Kurikulum, dan Asesmen Pendidikan Kementerian Pendidikan, Kebudayaan, Riset, Dan Teknologi Nomor 008/H/KR/2022 Tentang Capaian

Pembelajaran Pada Anak Usia Dini, Jenjang Pendidikan Dasar, Dan Jenjang Pendidikan Menengah Pada Kurikulum Merdeka. In Badan Standar, Kurikulum, Dan Asesmen Pendidikan.

Laili, N. (2021). Pengaruh Self-Efficacy Dan Motivasi Belajar Terhadap Kemandirian Belajar Matematika. Afeksi: Jurnal Penelitian Dan Evaluasi Pendidikan, 2(2), 98–103. https://doi.org/10.35672/afeksi.v2i2.35

Lubis, R. H., Lubis, L., & Aziz, A. (2015). Hubungan Antara Dukungan Sosial Dan Kecerdasan Emosional Dengan Self-Regulated Learning Siswa. Jurnal Analitika, 7(2), 105–117.

Parhan, M., & Sutedja, B. (2019). Penerapan Pendekatan Pembelajaran Kontekstual Dalam Pendidikan Agama Islam Di Universitas Pendidikan Indonesia. TARBAWY : Indonesian Journal of Islamic Education, 6(2), 114–126. https://doi.org/10.17509/t.v6i2.20165

Purwanza, S. W., Wardhana, A., & Mufidah, A. (2020). Metodologi Penelitian Kuantitatif, Kualitatif dan Kombinasi (A. Munandar, Ed.). CV. Media Sains Indonesia.

Rahayu, I. F., & Aini, I. N. (2021). ANALISIS KEMANDIRIAN BELAJAR DALAM PEMBELAJARAN MATEMATIKA PADA SISWA SMP. Jurnal Pembelajaran Matematika Inovatif, 4(4). https://doi.org/10.22460/jpmi.v4i4.789-798

Sama', Wahyuni, A., Anggraeni, A. D., Tonasih, Yoniartini, D. M., Amni, S. S., Ismarianti, Pentury, H. J., Pelangi, I., & Widiatuti, R. (2021). Psikologi Pendidikan (I. K. N. Ardiawan, Ed.). Yayasan Penerbit Muhammad Zaini.

Saragih, C. D., & Lubis, P. K. D. (2023). Pengaruh Efikasi Diri Dan Kecerdasan Emosional Terhadap Kemandirian Belajar Ekonomi Siswa Kelas XI IPS SMA Negeri 1 Siantar T.A 2022/ 2023 Dengan Motivasi Berprestasi Sebagai Variabel Intervening . Jurnal Sadewa : Publikasi Ilmu Pendidikan, Pembelajaran Dan Ilmu Sosial, 1(3), 216–231.

Sari, A. K., Muhsin, & Rozi, F. (2018). Pengaruh Motivasi, Sarana Prasarana, Efikasi Diri, Dan Penyesuaian Diri Terhadap Kemandirian Belajar. Economic Education Analysis Journal, 6(3), 923–935.

Susilo, A. (2021). Monograf Pengaruh Strategi Pembelajaran dan Kecerdasan Emosional Siswa terhadap Kemandirian Belajar (H. Wijoyo, Ed.). Insan Cendekia Mandiri.

Yulyani, R. D. (2021). Pengaruh Efikasi Diri Terhadap Kemandirian Belajar Dengan Motivasi Belajar Sebagai Variabel Intervening. Al-Bahtsu, 6(1), 50–56.

Zahara, L. (2019). Pengaruh Efikasi Diri terhadap Kemandirian Belajar Siswa pada Mata Pelajaran Akuntansi Kelas X Akuntansi SMK Swasta Al-Fattah Medan Tahun Pelajaran 2019/2020. Universitas Muhammadiyah Sumatera Utara.