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The Effect of Learning Interest and Learning Discipline on Student Learning Outcomes in Informatics Class X SMA Negeri 8 Pontianak

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Abstract

The world of education is currently developing, various kinds of innovation and renewal are carried out to improve the quality and quantity of education. Various breakthroughs have also been made both in curriculum development, learning innovation, and the provision of educational facilities and infrastructure needed to improve the quality of education itself. The method used in this study is a quantitative descriptive method with an Ex Post Facto approach. The population of this study is class X students of SMA Negeri 8 Pontianak for the 2023/2024 school year.The data collection techniques in this article are direct communication techniques and also use questionnaires. The validity test of the instrument is used to assess whether the instrument can accurately disclose the data of the variable being studied. The validity of the content and construct was assessed through expert assessment by three validators, consisting of two IT lecturers and one Informatics teacher, to evaluate the suitability of the questionnaire about learning interests and learning disciplines. The data from this research includes information about students of SMA Negeri 8 Pontianak class XA, XB, XC, XD, XE, XF, XG, XH, XI which amounted to 322 students who had previously been observed, this was done to find out the problems at SMA Negeri 8 Pontianak before a study was conducted. The research carried out included one bound variable, namely Learning Outcome (Y), and two independent variables, namely Learning Interest (X1) and Learning Discipline (X2) Variable Data for X1 and X2 was obtained from a questionnaire with a likert scale answer model of 4 (four) alternative answers that were distributed according to the sample needs to 167 students who were the research sample.

Keywords: Learning Interest; Learning Discipline; Learning Outcomes; Informatics.

Abstract

Dunia pendidikan saat ini sedang berkembang, berbagai macam inovasi dan pembaharuan dilakukan untuk meningkatkan kualitas dan kuantitas pendidikan. Berbagai terobosan juga telah dilakukan baik dalam pengembangan kurikulum, inovasi pembelajaran, maupun penyediaan sarana dan prasarana pendidikan yang dibutuhkan untuk meningkatkan kualitas

pendidikan itu sendiri. Metode yang digunakan dalam penelitian ini adalah metode deskriptif kuantitatif dengan pendekatan Ex Post Facto. Populasi penelitian ini adalah siswa kelas X SMA Negeri 8 Pontianak tahun ajaran 2023/2024. Teknik pengumpulan data dalam artikel ini adalah teknik komunikasi langsung dan juga menggunakan kuesioner. Uji validitas instrumen digunakan untuk menilai apakah instrumen dapat secara akurat mengungkapkan data variabel yang sedang dipelajari. Keabsahan isi dan konstruksi dinilai melalui penilaian ahli oleh tiga validator, yang terdiri dari dua dosen IT dan satu guru Informatika, untuk mengevaluasi kesesuaian kuesioner tentang minat belajar dan disiplin pembelajaran. Data dari penelitian ini meliputi informasi tentang siswa SMA Negeri 8 Pontianak kelas XA, XB, XC, XD, XE, XF, XG, XH, XI yang berjumlah 322 siswa yang sebelumnya telah diamati, hal ini dilakukan untuk mengetahui permasalahan di SMA Negeri 8 Pontianak sebelum dilakukan penelitian. Penelitian yang dilakukan meliputi satu variabel terikat yaitu Learning Outcome (Y), dan dua variabel independen yaitu Learning Interest (X1) dan Learning Discipline (X2) Data variabel untuk X1 dan X2 diperoleh dari kuesioner dengan model jawaban skala likert 4 (empat) jawaban alternatif yang didistribusikan sesuai kebutuhan sampel kepada 167 siswa yang menjadi sampel penelitian.

Kata-kata Kunci: *Minat Belajar; Disiplin Belajar; Hasil Belajar; Informatika.*

INTRODUCTION

Education is a very important foundation for every human being to develop. With the progress and development of science, education has become so important in the life of the world community, this is a serious challenge for every country that pays special attention to the development of education.[1] Therefore, education must always be a part of a person's life that can improve intelligence, skills and develop self-potential, be responsible, intelligent and creative.[2] One of the goals of education is to prepare students to become members of society who have academic or professional abilities, who can apply and develop the knowledge that a person has. Expert opinions state that education is a conscious and systematic effort, carried out by people who are entrusted with the responsibility to influence students to have traits and characters in accordance with educational ideals.[3]

The world of education is currently developing, various kinds of innovation and renewal are carried out to improve the quality and quantity of education. Various breakthroughs have also been made both in curriculum development, learning innovation,

[1] Liesbeth K.J. Baartman dan Elly de Bruijn, "Integrating Knowledge, Skills and Attitudes: Conceptualising Learning Processes Towards Vocational Competence," *Educational Research Review* 6, no. 2 (2011): 125–134, https://www.sciencedirect.com/science/article/abs/pii/S1747938X11000145?via%3Dihub.

[2] David Buckingham, "Guest Editorial: The Success and Failure of Media Education," *MERJ: Media Education Research Journal* 4, no. 2 (2014): 5–18, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://merj.info/wp-content/uploads/2014/01/MERJ_4-2-Editorial.pdf.

[3] Elin Kubberød, Siw M. Fosstenløkken, dan Per Olav Erstad, "Peer Mentoring in Entrepreneurship Education: Towards a Role Typology," *Emerald Insight: Discover Journals, Books and Case Studies* 60, no. 9 (2018): 1026–1040, https://www.emerald.com/insight/content/doi/10.1108/ET-08-2017-0109/full/html.

and the provision of educational facilities and infrastructure needed to improve the quality of education itself. One of the latest breakthroughs made by the Ministry of National Education and Culture is the Independent Learning Curriculum. The *Kurikulum Merdeka* that is now being implemented by several schools was launched on February 11, 2022 by the Minister of Education Nadiem Makariem. According to Nadiem Makariem.[4] Explained that the *Kurikulum Merdeka* is a curriculum that brings diverse intracurricular learning by optimizing content so that students have more time and convenience in exploring and strengthening their competencies. Based on the President of the Republic of Indonesia No. 56 of 2022, the Guidelines for the Implementation of the Curriculum in the context of Learning Recovery (*Kurikulum Merdeka*) have several goals, the first is to create a fun education, the second is to catch up with the education provided during the Covid-19 pandemic, and the third is to simplify the curriculum to be more flexible so that learning becomes deeper.[5]

SMA Negeri 8 is one of the schools in Pontianak City located on Jalan Ampera Pontianak which has now implemented the *Kurikulum Merdeka*. The results of pre-observations and interviews conducted with the Deputy Head of the Curriculum of SMA Negeri 8 Pontianak that the implementation of the *Kurikulum Merdeka* was in the first year of 2021, at the time of its emergence through the Driving School. The implementation of the *Kurikulum Merdeka* is carried out based on government policies that initiate the improvement of the curriculum from K13 to the *Kurikulum Merdeka* which has been implemented stably until now, but still has obstacles that occur because every element is required to adapt appropriately to stabilize the teaching and learning activities at SMA Negeri 8 Pontianak. The role of teachers is the main key in carrying out the purpose of this curriculum in order to attract interest and maintain student discipline.

Based on interviews with Informatics teachers at SMA Negeri 8 Pontianak, there were several problems found, namely students considered that Informatics was a subject that was classified as difficult to learn, because the programming language was still unfamiliar to students. Teachers strive to foster students' interest in learning, in addition to Informatics subjects which are classified as new subject categories in the *Kurikulum Merdeka*, there are

[4] Dwi Aryanti dan M. Indra Saputra, "Penerapan Kurikulum Merdeka sebagai Upaya dalam Mengatasi Krisis Pembelajaran (Learning Loss)," *Educatio: Jurnal Ilmu Kependidikan* 18, no. 1 (2023): 17–31, https://e-journal.hamzanwadi.ac.id/index.php/edc/article/view/12286.

[5] Selamat Ariga, "Implementasi Kurikulum Merdeka Pasca Pandemi Covid-19," *Edu Society: Jurnal Pendidikan, Ilmu Sosial dan Pengabdian Kepada Masyarakat* 2, no. 2 (2022): 662–670, https://jurnal.permapendis-sumut.org/index.php/edusociety/article/view/225.

also many materials that are newly learned by students which are obstacles in understanding the material that students are learning. Students' interests will be seen from class X to class XI whether students are interested in Informatics or not, because in class X students are explained and get an overview of Informatics learning, and are explained directly examples so that they are easy to understand to attract the interest of the students themselves. For teaching and learning activities, there are some students who are still divided, some are disciplined in the teaching and learning process, and some are still lacking discipline.

Based on the results of the interviews, students have different opinions, because of the difference in learning interest in Informatics subjects, some have the conclusion that Informatics subjects are classified as difficult, and some have the conclusion that Informatics subjects are fun to learn.

Students who are interested in a subject will study seriously, because there is an attraction for them.[6] As for student discipline in learning, where there are still some students who lack their attention and seriousness in participating in lessons. There are some students who often speak when the teacher is explaining in front of the class. Students are also less able to take advantage of positive moments, such as during the change of class hours, where students tend to be noisy and wander outside the classroom rather than waiting for the teacher in the classroom.

Some of the factors that affect learning outcomes based on various previous studies include interest in learning, learning discipline and interest in learning along with learning discipline together.[7] Based on the researcher's description, information from SMA Negeri 8 teachers about the condition of the research object in each variable is free to bound variables, so the researcher is interested in conducting research on the influence of learning interest and learning discipline on student learning outcomes in informatics class X SMA Negeri 8 Pontianak.

RESEARCH METHODS

In a research, it is necessary to have a method in order to realize the research objectives as expected, certain methods are needed appropriately, the method used is called

[6] Nadhirin, "Values Based Superior Students' Learning Behaviour," *ADDIN: Media Dialektika Ilmu Islam* 12, no. 1 (2018): 133–162, https://journal.iainkudus.ac.id/index.php/Addin/article/view/3592.

[7] Yemima Intan Sari dan Osly Usman, "Effect of Learning Ability, Time Efficiency, Learning Motivation and Discipline of Students' Time on Interests of Use of E-Learning," *SSRN Electronic Journal* (2019): 1–18, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3512042.

a research method. According to Sugiyono.[8] Research methods are basically a scientific way to obtain data, certain purposes and uses. In accordance with the problem, the method used in this study is a quantitative descriptive method with an Ex Post Facto approach. The population of this study is class X students of SMA Negeri 8 Pontianak for the 2023/2024 school year. The data collection method employed in this work include direct communication techniques and the utilization of questionnaires. The validity test of the instrument is used to assess whether the instrument can accurately disclose the data of the variable being studied. The validity of the content and construct was assessed through expert assessment by three validators, consisting of two IT lecturers and one Informatics teacher, to evaluate the suitability of the questionnaire about learning interests and learning disciplines.[9]

Table 1. Data on the Results of Validation of Research Instruments

It	Validators	Instrument Aspects	Information
1	Henny Puspitasari, S.Kom, M.Pd	Learning Interest Learning Discipline Learning Outcomes	Valid
2	Nurbani,ST,M.Pd	Learning Interest Learning Discipline Learning Outcomes	Valid
3	Yogi Sukma Vituazi, S.Pd	Learning Interest Learning Discipline Learning Outcomes	Valid

The empirical validity was analyzed using SPSS Software version 25 by applying the product moment correlation technique at a significance level of 5%. to calculate the relationship between learning interest and learning discipline. Reliability testing was carried out using Cronbach's alpha. The acceptable reliability coefficient was > 0.60. To test the reliability of the instrument, Cronbach's alpha formula was used. In this study, to determine the relationship between learning interest variables and learning discipline variables, data analysis techniques were used which included analysis prerequisite tests and hypothesis tests with the help of SPSS 25 software.

[8] Sonny Eli Zaluchu, "Strategi Penelitian Kualitatif dan Kuantitatif di dalam Penelitian Agama," *Evangelikal: Jurnal Teologi Injili dan Pembinaan Warga Jemaat* 4, no. 1 (2020): 28–38, https://journal.sttsimpson.ac.id/index.php/EJTI/article/view/167.

[9] Lütfi SÜRÜCÜ dan Ahmet MASLAKÇI, "Validity and Reliability in Quantitative Research," *Business and Management Studies: an International Journal* 8, no. 3 (2020): 2694–2726, https://www.bmij.org/index.php/1/article/view/1540.

RESULTS AND DISCUSSION

The data from this research includes information about students of SMA Negeri 8 Pontianak class XA, XB, XC, XD, XE, XF, XG, XH, XI which amounted to 322 students who had previously been observed, this was done to find out the problems at SMA Negeri 8 Pontianak before a study was conducted. The research carried out included one bound variable, namely Learning Outcome (Y), and two independent variables, namely Learning Interest (X1) and Learning Discipline (X2) Variable Data for X1 and X2 was obtained from a questionnaire with a likert scale answer model of 4 (four) alternative answers that were distributed according to the sample needs to 167 students who were the research sample.

The description of the data obtained in this study is data that is described quantitatively by presenting the maximum, minimum, stadar deviation, mean, mode and median scores. Subsequently, the results of the research were carried out descriptive analysis tests, hypothesis tests were carried out using simple linear regression tests and multiple linear regression tests. The description of the data carried out on Learning Interest and Learning Discipline on Learning Outcomes is as follows:

Overview of Learning Interest

The following are the results of the description of the Learning Interest questionnaire obtained on 167 Respondents, the results of the choice of answers and the percentage for the Learning Interest variable (X1) can be seen in the table and diagram below:

Table 4.1. Distribution of Respondents' Answers to Learning Interests

Choice of Answer	Number of Answers	Percentage
Strongly Agree	819	24,52%
Agree	991	29,67%
Disagree	728	21,80%
Strongly disagree	802	24,01%
Total	**3340**	**100%**

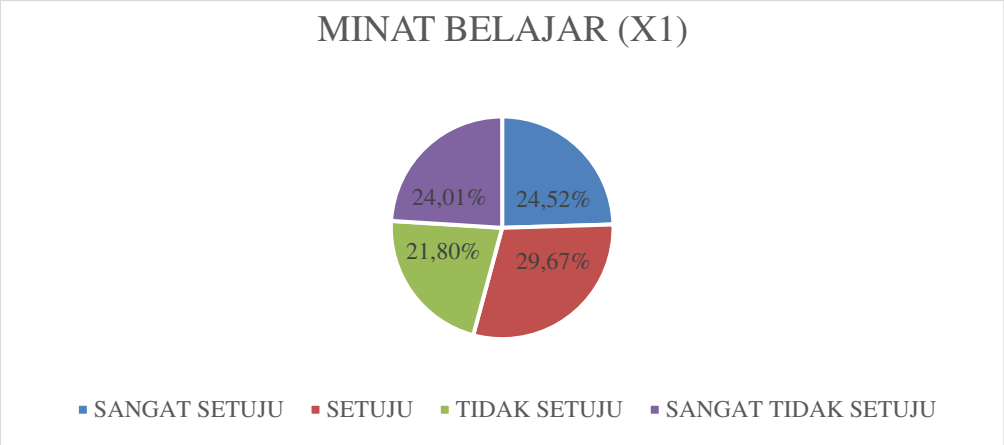

Figure 4.1. Distribution of Respondents' Answers to Learning Interests

Based on the table and diagram above, the most answer choice is the answer "Agree" with the number of answers being 991 or 29.67%. Then the answer with the least choice is the "Strongly disagree" answer, with the number of answers being 802 or 24.01%. In addition, for the choice of answers "Strongly agree" and "Disagree" amounted to 819 or 24.52% and 728 or 21.80%, respectively.

Then the statistical distribution table or descriptive statistics of the Learning Interest variable (X1) can be seen in the table below:

Table 4.2. Results of the Learning Interest Statistical Test

Mean	64,71
Std. Error of Mean	0,561
Median	65,00
Mode	65
Std. Deviation	7,255
Variance	52,640
Range	33
Minimum	47
Maximum	80

Based on the descriptive table for the Learning Interest variable (X1) above, the mean value is 64.71, the median value is 65, and the frequently occurring value is 65.00. Then the standard deviation of the data is 7.255, the variance is 52.640, *the range* is 33, the minimum value is 47, and the maximum value of the data is 80. The calculation of data distribution is presented into several groups or classes, namely:

Calculate *the range* of data

r = Maximum data – Minimum data

$r = 80 - 47$

$r = 33$

Determining the number of classes

$k = 1 + 3{,}3 \log n$

= 1 + 3.3 log 167

= 1 + (3,3) (2,22)

= 1 + 7.33

= 8.33 9 (rounded to 9)≈

Determining the length of the interval class (i)

$i = \frac{r}{k}$

$= \frac{33}{9}$

= 3.67 4 (rounded to 4)≈

The results of the statistical distribution table of the Learning Interest variable (X1) are as follows:

Table 4.3. Statistical Distribution of Learning Interest

Number	Interval Class	Frequency	Percentage
1.	47 - 50	5	2,99%
2.	51 - 54	10	5,99%
3.	55 - 58	22	13,17%
4.	59 - 62	29	17,37%
5.	63 - 66	30	17,96%
6.	67 - 70	31	18,56%
7.	71 - 74	27	16,17%
8.	75 - 78	10	5,99%
9.	79 - 82	3	1,80%
Total		**167**	**100%**

The tendency of the score on the learning interest variable (X1) was calculated based on the instrument score, with a minimum score of 47 and a maximum score of 80. The results of the calculation for the ideal even score (Mi) are as follows:

$Mi =$ (maximum score + minimum score)$^1/_2$

$Mi =$ (80 + 47)$^1/_2$

$Mi = 63{,}5$

The calculation of the ideal standard deviation (Sdi) is as follows:

$Sdi =$ (Maximum Score - Minimum Score)$^1/_6$

$Sdi =$ (98 - 60)$^1/_6$

$Sdi = 5{,}5$

Based on the calculation above, the distribution of the learning interest tendency category (X1) can be obtained as follows:

Table 4.4. Distribution of Learning Interest Tendency Categories

Number	Interval Score	Frequency	Percentage	Category
1.	$X \geq 72$	32	19,16%	Very High
2.	$63 \leq X < 72$	69	41,32%	Tall
3.	$55 \leq x < 63$	51	30,54%	Low
4.	$X < 55$	15	8,98%	Very Low
Total		**167**	**100%**	

Based on the distribution table of the category, it can also be seen based on the diagram below:

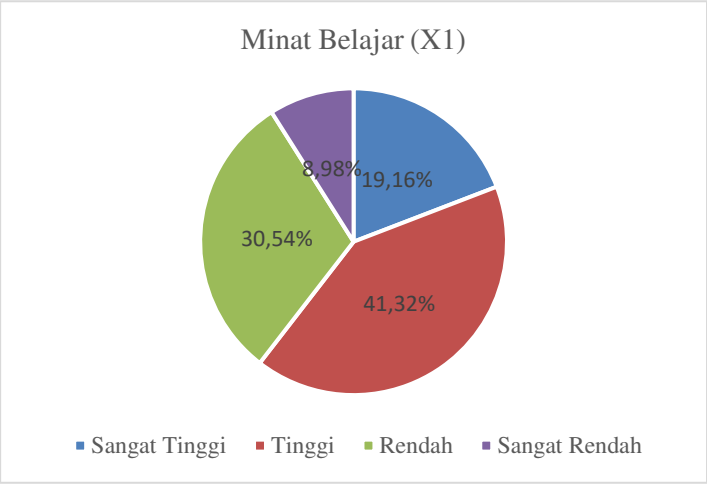

Figure 4.2. Distribution of Learning Interest Tendency Categories

Based on the table and diagram above, the learning interest of students who are included in the very high category is 32 students or 19.16%, the high category is 69 students or 41.32%, the low category is 51 students or 30.54%, and the very low category is 15 students or 8.98%. In general, students' interest in learning tends to fall into a high category.

This study discusses students' learning interests and learning disciplines towards the learning outcomes of class X students at SMA Negeri 8 Pontianak. In this study, the variables discussed are the variables of learning interest and learning discipline on learning outcomes. It is known that the percentage of student learning interest in the very high category is 32 students or 19.16%, the high category is 69 students or 41.32%, the low category is 51 students or 30.54%, and the very low category is 15 students or 8.98%. In general, students' interest in learning tends to be in a high category. It is known that the percentage of discipline in the very high category is 39 students or 23.35%, the high category is 77 students or 46.11%, the low category is 39 students or 23.35%, and the very low category is 12 students

or 7.19%. In general, student learning discipline tends to be in a high category. For student learning outcomes, it is included in the Good criteria.

The Effect of Learning Interest on Learning Outcomes

Based on the results of the hypothesis test for the variable of student learning interest on the learning outcomes of class X students at SMA Negeri 8 Pontianak, the results of the simple linear regression test between the variables of learning interest and learning outcomes obtained a significance value of 0.431, so that the significant value (0.431) > 0.05. Therefore, Ho's hypothesis is accepted, it can be concluded that there is no influence of learning interest on student learning outcomes in Informatics class X of SMA Negeri 8 Pontianak. Arya Van Asmara et al. with the research title "The Effect of the Utilization of E-Learning Media and Interest in Learning Mathematics on the Mathematics Learning Outcomes of Class X Students at SMA Negeri 1 Wonotunggal."[10] The results of the study showed that there was no effect between learning interest (X2) and student learning outcomes (Y). This is in line with the results of this study that learning interest has no influence on learning outcomes.

This is different from the results of research entitled The Influence of Student Learning Interest on Mathematics Learning Outcomes of Students of SMK Yadika Bandar Lampung that a person who has a high interest in learning will be able to follow the learning process well so that he will be able to produce the best performance in his learning, especially in mathematics lessons.[11] Interest measured through students' feelings of pleasure, interest, student attention, and student involvement are factors that have no effect on the value of informatics learning outcomes. Interest in this learning process does not affect the results obtained by students. The learning process that is currently supported by the convenience of the internet, as a result of which students become lazy and tend to underestimate the learning delivered by the teacher because they feel that everything can be obtained by searching on the internet. The ease and use of informatics in a simple daily manner such as social media causes a feeling of ordinaryness, and students' interest and attention in learning informatics is less.

[10] Arya Van Asmara et al., "Pengaruh Pemanfaatan Media E-Learning dan Minat Belajar Matematika terhadap Hasil Belajar Matematika Siswa Kelas X di SMA Negeri 1 Wonotunggal," in *Seminar Nasional Tadris Matematika (Santika): "Computational Thinking Dan Literasi Matematika Dalam Tantangan Asesmen Nasional,"* vol. 1 (Pekalongan: Universitas Islam Negeri K.H. Abdurrahman Wahid, 2021), 21–43, https://proceeding.uingusdur.ac.id/index.php/santika/article/view/333.

[11] Yolanda Dwi Prastika, "Pengaruh Minat Belajar Siswa terhadap Hasil Belajar Matematika Siswa SMK Yadika Bandar Lampung," *Jurnal Ilmiah Matematika Realistik* 1, no. 2 (2020): 17–22, https://jim.teknokrat.ac.id/index.php/pendidikanmatematika/article/view/519.

The Effect of Learning Discipline on Learning Outcomes

Based on the results of the hypothesis test for the variables of student learning discipline on the learning outcomes of class X students at SMA Negeri 8 Pontianak, the results of the simple linear regression test between the variables of learning discipline on learning outcomes obtained a significance value of 0.003, so that the significance value (0.003) < 0.05. Therefore, the accepted Ha hypothesis can be concluded that there is an influence of learning discipline on student learning outcomes in Informatics class X of SMA Negeri 8 Pontianak and the regression coefficient for the learning discipline variable (X2) is 0.045, meaning that for every addition of 1 learning discipline score (X2), it will increase the learning outcome (Y) by 0.045. This is in line with the research conducted by Dus Hendra, Rijal Abdullah with the Influence of Learning Discipline on Learning Outcomes in the Technical Drawing Training Course for Grade XI Students majoring in Building Drawing Engineering at SMK Negeri 2 Solok City which shows that there is a significant influence between learning discipline on learning outcomes.[12] The results that calculated > rtable (0.491>0.2256) so that it can be concluded that the first hypothesis is accepted. So there is a positive and significant relationship between learning discipline and learning outcomes (X1-Y).

The success of a learning process can be assessed through the individual achievements of each student. Learning discipline is an important aspect of the learning process Teachers are not only supposed to deliver the subject matter, but are also responsible for instilling a disciplined attitude in learning to their students. Students' awareness of the importance of discipline in learning from an early age is also very necessary so that the learning process can run smoothly and achieve the desired learning outcomes. Satisfactory learning outcomes do not only depend on a person's level of intelligence, but are also supported by consistency and firmness in applying school discipline, discipline in learning independently, and good behavior.

CONCLUSION

The key factors that influence student learning outcomes in informatics subjects are learning interest and learning discipline. Previous research has found that learning interest

[12] Dus Hendra dan Rijal Abdullah, "Pengaruh Disiplin Belajar terhadap Hasil Belajar pada Mata Diklat Gambar Teknik Siswa Kelas XI Jurusam Teknik Gambar Bangunan di SMK Negeri 2 Kota Solok," *CIVED: Journal Of Civil Engineering And Vocation Edution* 5, no. 4 (2018): 1–9, https://ejournal.unp.ac.id/index.php/cived/article/view/102477.

and learning discipline have a significant positive impact on student learning outcomes , and that student background is an important factor for academic success . Student motivation and discipline have also been shown to significantly impact teacher performance in vocational schools. Academic performance is a crucial metric for evaluating the effectiveness of educational programs and institutions, and understanding the factors that drive strong learning outcomes is essential for developing strategies to support student success. Student learning outcomes are influenced by a variety of internal and external factors, with both student characteristics and environmental conditions playing a role.

Academic success and strong learning outcomes are critical objectives for educational institutions, as they serve as key metrics for evaluating program effectiveness and student achievement. While a range of factors can impact student performance, this study focuses on the influence of learning interest and learning discipline on student learning outcomes in informatics subjects. In order to provide a comprehensive understanding of the issue, this paper will review relevant research on the relationship between learning interest, learning discipline, and student learning outcomes, as well as the broader context of factors shaping academic achievement. Numerous studies have examined the impact of student-level factors on academic performance, highlighting the central role of learner characteristics and behaviors in driving learning outcomes.

Prior research has found that both learning interest and learning discipline are key internal factors that significantly influence student learning outcomes. Learning interest refers to students' intrinsic motivation and engagement with the subject matter, while learning discipline encompasses behaviors like time management, study habits, and task persistence. Interest development has been shown to support persistence, conscientiousness, and the ability to work through challenges, all of which are crucial for strong academic performance. Discipline and self-regulation have also been linked to higher levels of academic achievement and the attainment of desired knowledge and skills. In addition to student-level factors, the broader environment and institutional conditions can shape learning outcomes. The design of the learning environment, the quality of instruction, and the overall institutional climate have all been identified as important contextual factors that contribute to student success. Characteristics of the learning environment, such as opportunities for hands-on practice, collaborative work, and personalized support, have been found to foster greater motivation and engagement among students. At the same time, research has highlighted the complex and multifaceted nature of academic performance, with

a range of individual, instructional, and institutional variables interacting to influence learning outcomes.

REFERENCES

Ariga, Selamat. "Implementasi Kurikulum Merdeka Pasca Pandemi Covid-19." *Edu Society: Jurnal Pendidikan, Ilmu Sosial dan Pengabdian Kepada Masyarakat* 2, no. 2 (2022): 662–670. https://jurnal.permapendis-sumut.org/index.php/edusociety/article/view/225.

Aryanti, Dwi, dan M. Indra Saputra. "Penerapan Kurikulum Merdeka sebagai Upaya dalam Mengatasi Krisis Pembelajaran (Learning Loss)." *Educatio: Jurnal Ilmu Kependidikan* 18, no. 1 (2023): 17–31. https://e-journal.hamzanwadi.ac.id/index.php/edc/article/view/12286.

Asmara, Arya Van, Umum Budi Karyanto, Santika Lya Diah Pramesti, dan Hana Nisrina. "Pengaruh Pemanfaatan Media E-Learning dan Minat Belajar Matematika terhadap Hasil Belajar Matematika Siswa Kelas X di SMA Negeri 1 Wonotunggal." In *Seminar Nasional Tadris Matematika (Santika): "Computational Thinking Dan Literasi Matematika Dalam Tantangan Asesmen Nasional,"* 1:21–43. Pekalongan: Universitas Islam Negeri K.H. Abdurrahman Wahid, 2021. https://proceeding.uingusdur.ac.id/index.php/santika/article/view/333.

Baartman, Liesbeth K.J., dan Elly de Bruijn. "Integrating Knowledge, Skills and Attitudes: Conceptualising Learning Processes Towards Vocational Competence." *Educational Research Review* 6, no. 2 (2011): 125–134. https://www.sciencedirect.com/science/article/abs/pii/S1747938X11000145?via%3 Dihub.

Buckingham, David. "Guest Editorial: The Success and Failure of Media Education." *MERJ: Media Education Research Journal* 4, no. 2 (2014): 5–18. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://merj.info/wp-content/uploads/2014/01/MERJ_4-2-Editorial.pdf.

Hendra, Dus, dan Rijal Abdullah. "Pengaruh Disiplin Belajar terhadap Hasil Belajar pada Mata Diklat Gambar Teknik Siswa Kelas XI Jurusam Teknik Gambar Bangunan di SMK Negeri 2 Kota Solok." *CIVED: Journal Of Civil Engineering And Vocation Edution* 5, no. 4 (2018): 1–9. https://ejournal.unp.ac.id/index.php/cived/article/view/102477.

Kubberød, Elin, Siw M. Fosstenløkken, dan Per Olav Erstad. "Peer Mentoring in Entrepreneurship Education: Towards a Role Typology." *Emerald Insight: Discover Journals, Books and Case Studies* 60, no. 9 (2018): 1026–1040. https://www.emerald.com/insight/content/doi/10.1108/ET-08-2017-0109/full/html.

Nadhirin. "Values Based Superior Students' Learning Behaviour." *ADDIN: Media Dialektika Ilmu Islam* 12, no. 1 (2018): 133–162. https://journal.iainkudus.ac.id/index.php/Addin/article/view/3592.

Prastika, Yolanda Dwi. "Pengaruh Minat Belajar Siswa terhadap Hasil Belajar Matematika Siswa SMK Yadika Bandar Lampung." *Jurnal Ilmiah Matematika Realistik* 1, no. 2 (2020): 17–22.

https://jim.teknokrat.ac.id/index.php/pendidikanmatematika/article/view/519.

Sari, Yemima Intan, dan Osly Usman. "Effect of Learning Ability, Time Efficiency, Learning Motivation and Discipline of Students' Time on Interests of Use of E-Learning." *SSRN Electronic Journal* (2019): 1–18. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3512042.

SÜRÜCÜ, Lütfi, dan Ahmet MASLAKÇI. "Validity and Reliability in Quantitative Research." *Business and Management Studies: an International Journal* 8, no. 3 (2020): 2694–2726. https://www.bmij.org/index.php/1/article/view/1540.

Zaluchu, Sonny Eli. "Strategi Penelitian Kualitatif dan Kuantitatif di dalam Penelitian Agama." *Evangelikal: Jurnal Teologi Injili dan Pembinaan Warga Jemaat* 4, no. 1 (2020): 28–38. https://journal.sttsimpson.ac.id/index.php/EJTI/article/view/167.