JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

Jurnal Eduscience (JES)
Volume 11, No. 2
August, 2024
Submit : 01 August 2024
Accepted : 27 August 2024

ANALYSIS OF LEARNING INTEREST ON BIOLOGY LEARNING OUTCOMES ON EXCRETORY SYSTEM MATERIAL IN SENIOR HIGH SCHOOL

DIANA KHAIRIYAH SIRAIT[1], HASMI SYAHPUTRA HARAHAP[2], RUSDI MACHRIZAL[3]

[1,2,3]Department of Biology Education, Universitas Labuhanbatu, Indonesia
dianakhairiyah614@gmail.com, hasmi.putraharahap@gmail.com, rusdimachrizal86@gmail.com

Abstract

This study aims to find out the interest in learning biology in the excretory system material of class XI Science at SMA Negeri 2 Rantau Selatan. This research is a quantitative descriptive research with a survey method. The research sample was 64 students which were determined by Cluster Random Sampling with the Taro Yamane formula. The research instrument used a learning interest questionnaire with a total of 25 statements. The analysis technique used is by calculating the results of the questionnaire based on the Likert scale. The results showed that (1) The results of the average value of learning interest of grade XI Science students of 77.4%-89.4% showed interest in learning in the good to very good category (2) There was a significant acquisition of learning interest indicator scores in each class XI Science with a value of 74%-98% in the good to very good category. (3) the acquisition of interest in learning based on gender, the scores of female students are 84%, > the scores of male students are 78%. It is hoped that in the future this research can be used as material for evaluating solutions to further increase students' interest in learning, it is expected that parents and teachers will always strive to provide learning supervision both at home and at school.

Keywords: Learning Interest, Gender, Biology Learning, Excretory System

Abstrak

Penelitian ini bertujuan untuk mengetahui minat belajar biologi pada materi sistem ekskresi kelas XI IPA di SMA Negeri 2 Rantau Selatan. Penelitian ini merupakan penelitian deskriptif kuantitatif dengan metode survei. Sampel penelitian sebanyak 64 murid yang di tentukan secara Cluster Random Sampling dengan rumus Taro Yamane. Instrumen penelitian menggunakan angket minat belajar dengan jumlah 25 pernyataan. Teknik analisis yang di gunakan dengan cara menghitung hasil angket berdasarkan skala likert. Hasil penelitian menunjukkan bahwa (1) Perolehan hasil nilai rata-rata minat belajar siswa kelas XI IPA sebesar 77,4%-89,4% menunjukkan minat belajar berkategori baik sampai sangat baik (2) Terdapat perolehan nilai indikator minat belajar yang signifikan di setiap kelas XI Ipa dengan nilai sebesar 74%-98% kategori baik sampai sangat baik. (3) perolehan minat belajar berdasarkan gender nilai siswi perempuan 84% > nilai siswa laki-laki 78%. Harapan ke depannya penelitian ini dapat menjadi bahan evaluasi solusi untuk lebih meningkatkan minat belajar siswa, diharapkan orang tua dan kepada guru untuk senantiasa berupaya memberikan pengawasan belajar baik di rumah maupun disekolah.

Keywords: Minat Belajar, Jenis Kelamin, Pembelajaran Biologi, Sistem Ekskresi

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

INTRODUCTION

Interest in education is a form of manifestation of human culture that is constantly changing following the progress of the times (Putra et al., 2021). Changes in the sense of improving education at all levels need to be continuously improved as an effort to prepare better for the future Efforts that can be made to anticipate future challenges are, Education must continue to develop in line with the development of science and technology. Improving the quality of human resources must be carried out in a planned, directed, intensive, effective and efficient manner in the development process. One of these efforts is through education. The importance of an education in an effort to eradicate ignorance to fight the poverty of the nation's life, improve the welfare of the people, and build the dignity of the state and nation, therefore the government is trying to pay serious attention to overcome various problems in the field of improving education from primary to tertiary levels. Education for everyone cannot be separated from the interest in learning that exists in a person, especially in someone who is pursuing education. Problems that exist in the learning process directly include low student interest in learning. Interest is a phenomenon that arises from the interaction of individuals with their environment. Interest is manifested in the relationship between people and objects and a special relationship with an object (for example, a topic or subject area), which then functions as a motivator (Tambunan, 2018). According to (Harahap et al., 2021) interest in learning is a very influential factor in the learning process. interest is one of the factors that influence the effort made by a person. Strong interest will lead to persistent, serious and not easily discouraged efforts in facing challenges, on the other hand, if a person's interest is low, his efforts are also low and even seem to ignore (Berutu et al., 2018).

Learning is a process that a person does to gain knowledge which results in a change in behavior for the better. In the learning process at school, learning activities must be able to make students understand concepts and understandings easily (Alberida, 2021). Therefore, the material to be learned must have a simple structure and presentation. Learning must also be able to develop certain capacities in accordance with the learning objectives to be achieved (Gulo, 2022). Students prefer to listen and learn from teacher lectures. Students have different learning styles, so students need to identify their preferred learning style so that learning can be easily accepted. Therefore, teachers need to be well aware of their students' learning styles. This allows prospective teachers to maximize student learning outcomes so that they can prepare appropriate strategies for teaching, especially in biology subjects (Parlindungan, 2022).

Biology learning is one part of natural science (IPA). Basically, biology is not a difficult science to learn, learning biology means learning about yourself and the environment around you. Biology is also related to how to find out and understand nature systematically. So that biology is not only the mastery

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

and collection of knowledge in the form of facts, concepts, and principles but also a process of discovery (Harefa et al., 2022). Biology is one of the branches of science that has its own characteristics compared to other sciences. Biology is one of the sciences that studies living things and their lives from various aspects of the problem and the level of organization (Gresinta and Fithah, 2022). Biology is a science that studies natural phenomena and interactions in it, which emphasizes the provision of direct experience to develop the ability of teachers to be able to develop a strategy in teaching that can increase student motivation, so that student activeness in participating in teaching and learning activities increases (Nulhakim, 2018). One of the discussion materials for biology lessons in SMA Class XI is the Excretory System in Humans, this topic is one of the subjects whose basic concepts are quite abstract and there are processes that are quite complicated so that this material is not easily understood by students. This is reinforced by (Simorangkir et al., 2020) the excretory system is one of the materials in biology subjects that are difficult for students to master (Fernandez et al., 2021).

Students argue that the material of the human excretory system is a subject matter that is less preferred, even tends to be boring because the learning process requires memorizing terminology and Latin on the introduction of organs involved in the process of excreting human waste substances, it is difficult to distinguish the process of excretion in humans, and understanding the process of urine formation is difficult to understand Understanding the material to be delivered and having the right teaching strategy will create a good teaching and learning process, one of the strategies that can be done is to use an interesting learning model so as to increase students' interest in learning the lesson and completing the assignments given by the teacher. In accordance with the high school syllabus in Biology Curriculum 2013, it is known that the excretory system in humans and animals is studied in semester II (even) in class XI. Excretory system learning material consists of: understanding of excretion, organs of the excretory system in humans and their functions, the process of urine formation, disorders and diseases that occur in the excretory system in humans. Based on the background of the problems described above, researchers are interested in conducting research (Harefa et al., 2022).

Therefore, an analysis will be carried out to see how students' interest in learning during biology learning in class XI SMA NEGERI 2 Rantau Selatan classically and based on gender. By analyzing students' interest in learning, it can be seen to what extent the level of learning possessed by students both classically and based on gender in biology subjects so that it can be evaluated and a solution is obtained to further increase students' interest in learning entitled "ANALYSIS OF LEARNING INTEREST ON BIOLOGY LEARNING OUTCOMES ON EXCRETORY SYSTEM MATERIAL IN SENIOR HIGH SCHOOL".

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

METHODS

This research was conducted in class XI Ipa SMA N 2 Rantau Selatan. This study uses a type of survey research with a quantitative descriptive approach. The survey method was chosen to determine the relationship of interest in learning biology on the learning outcomes of the excretory system of class xi ipa. According to Sugiono (2019) survey method is a quantitative research method used to obtain data that occurred in the past or present, about beliefs, opinions, characteristics, variable relationship behavior and to test several hypotheses about socialogical and psychological variables from samples taken from certain populations.

According to Arikunto (2019) explains that if the subject is less than 100 it is better to take all so that the research is population research, then if the number of subjects is more than 100 it can be taken between 10-15% or 20-25% or more. From the total population of 175 students consisting of all XI IPA classes. Therefore, the sample to be taken in this study is 30% of the existing population, and calculated using the Taro Yamane formula, the number of samples obtained is 64 samples.

$$n = \frac{N}{N\,d^2 + 1}$$

Description:

n = Sample size

N = population size

d^2 = Precision (set to 30%)

(Riduan dan Akdon, 2019)

The research was conducted by distributing questionnaires of interest in learning. Where previously the Questionnaire had been validated and rated Good to Excellent by one of the Biology Education Study Program lecturers, namely, Mrs. Novi Fitriandika Sari, S.Pd., M.Pd. Elements that are validated are: 1) concept; concept of learning interest questionnaire format. 2) Construction; conformity with the assessment instructions in the study interest questionnaire. 3) Language; using good and correct language, the terms used are appropriate and easy to understand and the clarity of letters and numbers. The data obtained will be analyzed using data analysis techniques. The purpose of this survey is to obtain information about student interest. The following is the lattice of the learning interest questionnaire instrument.

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

Table 1: Indicator of Learning Interest Instrument

Variabel	Indicator	Statement Distribution		Total
		Statement (+)	Statement (-)	
Interest	Feelings of pleasure	1, 3,7	10, 18	5
	Student interest	4, 8, 17	23, 11	5
	Attention in learning	9, 16, 21,	14, 25	5
	Learning Benefits and Functions	6, 13, 5	22, 19	5
	Learning Engagement	2, 20, 15	24, 12	5
	Total	15	10	25

Source: Modificated by Resita (2022)

The questionnaire in this study uses a Likert scale, which provides alternative answers to questions on each question item. The Likert scale has positive and negative statements and the answer response that will be given to the subject is in the form of words Strongly Agree (SS), Agree (S), Disagree (TS), and Strongly Disagree (STS). The Likert scale score on the learning interest instrument is as follows:

Table 2: Likert Scale on Learning Interest Instrument

Respones	Statement Score	
	Positif (+)	Negatif (-)
Strongly Agree	4	1
Agree	3	2
Disagree	2	3
Strongly Disagree	1	4

Source: Modificated by Resita (2022)

This type of research is survey research with a quantitative descriptive approach, so data analysis is done by calculating the survey scores obtained by each student. The percentage of this score is calculated using the following formula:

$$\mathbf{P = \frac{F}{N} X\ 100\%}$$

Description:

P = Persentase

F = Frequency of answering

N = Sample size

The results of data processing obtained in percentage form are continued with interpretation activities. This interpretation refers to the table above.

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

Table 3: Modification of the Learning Interest Questionnaire Rating Scale

No	Average Percentage	Categeory
1	82% - 100%	very good
2	63% - 81%	good
3	44% - 62%	not good
4	25% - 43%	not very good

Source: Modificated by Resita (2022)

Meanwhile, to determine learning outcomes, it is adjusted to the Maximum Classical Completeness (KKM) of class XI IPA of 75. To determine the criteria for learning outcomes are as follows:

Table 4: Criteria for Learning Outcome Score

No	Score	Criteria
1	88-100	Very good
2	75-87	Good
3	<75	Not good

Source: Modificated by Resita (2022)

RESULTS AND DISCUSSION

Based on data on student interest in learning, the average score of interest in learning of students in class XI IPA 3 is very good with an interval value of 89.4%, students in class XI IPA 4 are good with an interval value of 79.8% and students in class XI IPA 5 are good with an interval value of 77.4%. It can be concluded that the average student / student of each class XI IPA interest in learning biology with excretory system material towards the good to very good category.

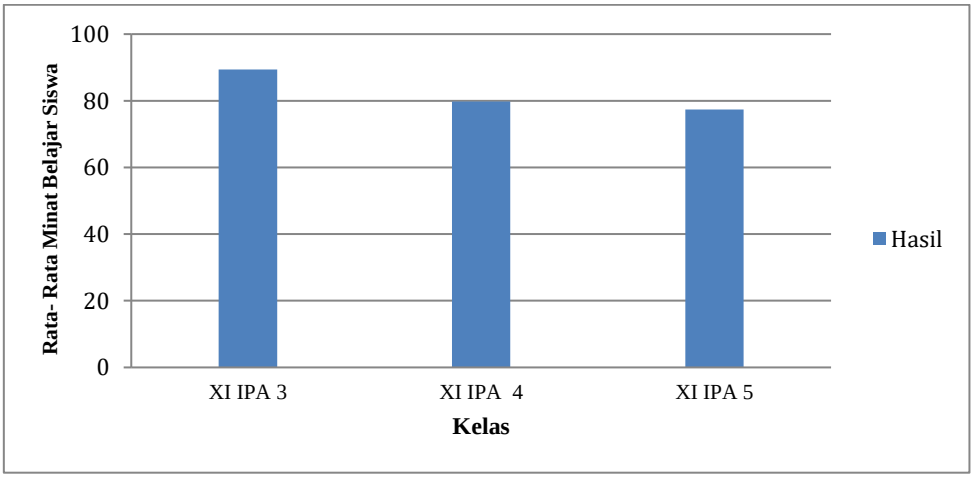

Figure 1. Learning interest in each class

Based on the questionnaire data, the percentage of student interest in learning indicators, namely feelings of pleasure, student interest, attention in learning, benefits and functions of learning and learning involvement. Based on the results of data processing and research on the presentation of indicators of

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

student interest in learning biology in class XI IPA3, XI IPA 4, and XI IPA 5 at SMA NEGERI 2 RANTAU SELATAN, after obtaining data from the questionnaire results, then the data is processed in the form of a diagram.

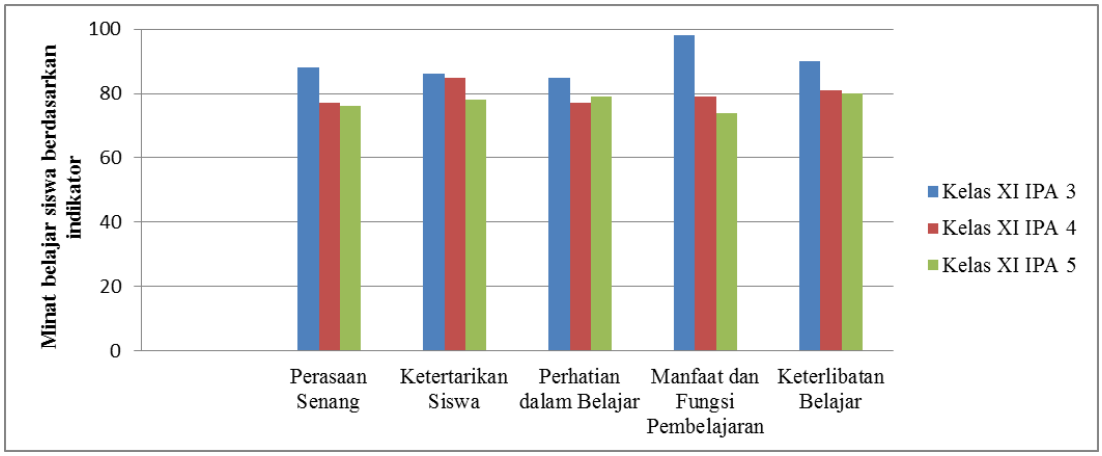

Figure 2. Learning interest based on indicator

Based on students' answers on the first indicator of class XI IPA 3, namely the existence of a feeling of pleasure towards learning, a presentation of having student interest in learning was obtained with an average value of 88%, it can be concluded that most students feel happy with learning Biology is categorized as very good, for the second indicator, namely the existence of student interest, an average of 86% was obtained, it can be concluded that most students can focus students' interest on learning for that students are categorized as very good. The third indicator, namely the existence of attention in learning to learning obtained an average of 85%, it can be concluded that most students have a desire to learn categorized as very good. The fourth indicator, namely the benefits and functions of learning, obtained an average percentage of 98%, it can be concluded that most students have the benefits and functions of learning biology categorized as very good. The last indicator, namely the existence of learning involvement in the desire to learn, obtained an average of 90%, it can be concluded that most students have efforts made to realize learning involvement is categorized as very good.

Based on the diagram in class XI IPA 4, namely the existence of a feeling of pleasure towards learning, a presentation of student learning interest was obtained with an average value of 77%, it can be concluded that most students feel happy with learning Biology is categorized as good. The second indicator, namely the existence of student interest, obtained an average of 85%, it can be concluded that most students can focus student interest on learning for that students are categorized as very good. The

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

third indicator, namely the existence of attention in learning to learning obtained an average of 77%, it can be concluded that most students have a desire to learn categorized as good. The fourth indicator, namely the existence of learning benefits and functions, obtained an average percentage of 79%, it can be concluded that most students have the benefits and functions of learning biology categorized as good. The last indicator, namely the existence of learning involvement in the desire to learn, obtained an average of 81%, it can be concluded that most students have efforts made to realize learning involvement categorized as very good.

Meanwhile, based on the diagram in class XI IPA 5, namely the existence of a feeling of pleasure towards learning, a presentation of student learning interest was obtained with an average value of 76%, it can be concluded that most students feel happy with learning Biology is categorized as good. For the second indicator, namely the existence of student interest, an average of 78% was obtained, it can be concluded that most students can focus students' interest on learning for that students are categorized as good. For the third indicator, namely the existence of attention in learning to learning obtained an average of 79%, it can be concluded that most students have a desire to learn categorized as good. For the fourth indicator, namely the existence of learning benefits and functions, an average presentation of 74% was obtained, it can be concluded that most students have the benefits and functions of learning Biology categorized as good. For the last indicator, namely the existence of learning involvement, the desire to learn obtained an average of 81%, it can be concluded that most students have efforts made to realize learning involvement is categorized as good.

From the results of the three indicator classes above, it can be seen that the percentage results of each indicator including in class XI IPA 3, XI IPA 4 and XI IPA 5, in Class XI IPA 3 are categorized as very good, while in Class XI IPA 4 and XI IPA 5 are good, from the five indicators it can be concluded that students are still willing to try to think and pay attention during learning, it can be seen from the highest presentation in the third indicator of the class, namely the existence of student engagement to learn. Overall, when viewed from each indicator of class XI IPA 3, XI IPA 4, and XI IPA 5, it can be concluded that all students are actively trying to follow the Biology learning process.

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

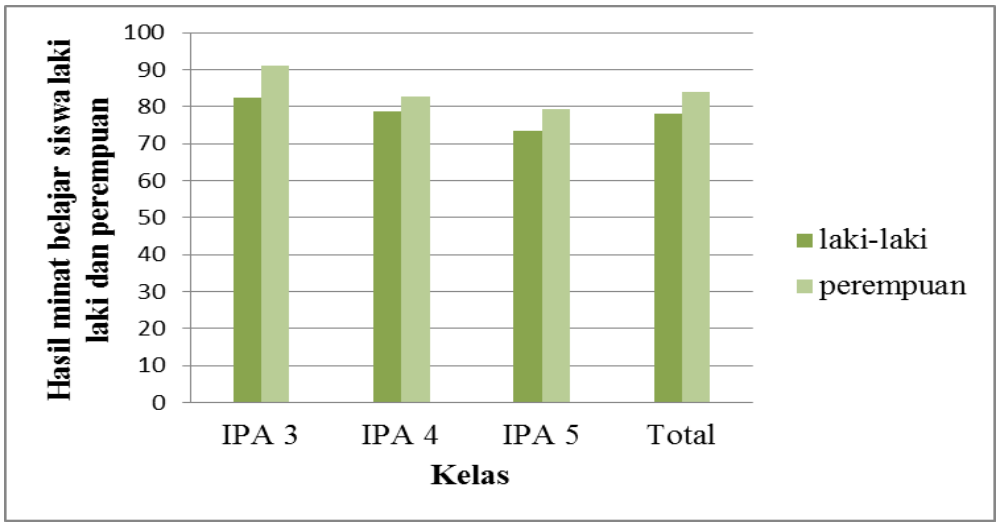

Figure 3. Learning interest based on gender

Based on gender, from the questionnaire data that has been processed by class XI IPA 3 male students, the average percentage of overall answers is 82.36%, it can be concluded that most male students have an interest in learning Biology with a very good category. XI IPA 3 students of female gender obtained an average percentage of overall answers of 91.03%, it can be concluded that most female students have an interest in learning Biology in the very good category when compared between the average percentage of interest in learning female students greater than male students (91.03%> 82.36%), so it can be concluded that the interest in learning female students is slightly better than the interest in learning male students in learning Biology in class XI IPA 3 SMA Negeri 2 Rantau Selatan.

While students of IPA 4 class of male gender obtained an average percentage of overall answers of 78.67%, it can be concluded that most male students have an interest in learning Biology in the good category. XI IPA 4 students of female gender obtained an average percentage of overall answers of 82.67%, it can be concluded that most female students have an interest in learning Biology in the very good category. When compared between the average percentage of female students' interest in learning is greater than that of male students (82.67%> 78.67%), so it can be concluded that female students' interest in learning is slightly better than male students' interest in learning Biology in class XI Ipa 4 SMA Negeri 2 Rantau Selatan.

While the male students of IPA Class 5 obtained an average percentage of overall answers of 73.40%, it can be concluded that most male students have an interest in learning Biology in the good category. And XI IPA 5 students of female gender obtained an average percentage of overall answers of 79.30%, it can be concluded that most female students have an interest in learning Biology in the good

JURNAL EDUSCIENCE (JES)
p-ISSN : 2303 - 355X | e-ISSN : 2685 - 2217
PUBLISHED BY : LPPM of UNIVERSITAS LABUHANBATU

category. When compared between the average percentage of female students' interest in learning is greater than that of male students (79.30> 73.40), so it can be concluded that female students' interest in learning is slightly better than male students' interest in learning Biology in class XI IPA 5 SMA Negeri 2 Rantau Selatan.

Based on the research data obtained from each of the 64 respondents of class XI IPA students of SMA Negeri 2 Rantau Selatan, it is known that the average value of the level of interest in learning students is in the good to very good category with an interval value of 77.4%-89.4%. Class XI IPA 3 has the highest learning interest indicator, followed by class XI IPA 4 in the second position and class XI IPA 5 in the last position. Learning interest based on gender is highest for female students in each class and male students are still below female learning interest.

In line with the opinion of previous research according to Chofifah, (2018) adolescent students in high school who have an age of around 16-18 years can be said to be a period of transition from children to adulthood where many changes occur such as hormonal, physical, psychological and social changes. The relationship between learning interest and age is a cognitive increase in the form of understanding and experiences that have been obtained related to the thinking process, feelings that are felt, more to the response of one's nature to something, and psychomotor in the form of a physical response or movement that will be carried out on something related to daily activities (Chofifah, 2018). Nabila, (2023) also argues that adolescents aged 13-15 have a strong curiosity, love to ask questions, have a high imagination, broad interests, are not afraid of being wrong, dare to face risks, are free in thinking, love new things, etc. Teenagers are still in the growth and development stage. Teenagers are still in the stage of growth and development.

The results of this study are in line with those revealed by Gresinta, (2022) that interest determines the continuous learning process of students so that students can acquire skills that come from themselves through involvement in learning.

In line with research from Berutu, (2018) learning activities that are usually carried out regularly and continuously in their daily lives which are permanent in nature will help in successfully achieving high learning outcomes. Conversely, if students do not have good study habits, it can result in low learning outcomes.

CONCLUSION

Based on the results of research and discussion of the Analysis of Student Learning Interest in Biology Subjects with Excretory System Material Class XI SMA Negeri 2 Rantau Selatan can be concluded as follows: (1) Based on the average value of each class XI IPA 3 with a value of 89.4%. While the XI IPA 4 class obtained a score of 79.8% and the last was the XI IPA 5 class with a score of 77.4%. (2) Based on the value of each indicator of class XI IPA 3, the value of the indicator of feelings of pleasure is 88%, student interest is 86%, attention in learning 85%, the benefits and functions of learning 98%, learning involvement 90%. Then for class XI IPA 4 the value of the indicator of feeling happy is 77%, student interest is 85%, attention in learning 77%, the benefits and functions of learning 79%, 81% learning involvement. And the last is class XI IPA 5, the value of the indicator of feeling happy is 76%, student interest is 78%, attention in learning is 79%, the benefits and functions of learning are 74%, learning involvement is 81%. (3) Based on the value of each gender, IPA 3 class for women 91.03% and men 82.36%. For science class 4 for women 82.67% and men 78.67%. And the last is IPA class 5 for women 79.3% and men 73.4%.

REFERENCE

Arikunto, Suharsimi. 2019. Prosedur Penelitian. Jakarta : PT Rineka Cipta.

Azizah, N., & Alberida, H. (2021). Journal for Lesson and Learning Studies Seperti Apa Permasalahan Pembelajaran Biologi pada Siswa SMA? *Journal for Lesson and LearningStudies*,*4*(3),388–395. https://doi.org/https://doi.org/10.23887/jlls.v4i3.38073

Berutu, M. H. A., & Tambunan, M. I. H. (2018). Pengaruh Minat Dan Kebiasaan Belajar Terhadap Hasil Belajar Biologi Siswa Sma Se-Kota Stabat. *Jurnal Biolokus*, *1*(2), 109. https://doi.org/10.30821/biolokus.v1i2.351

Chofifah Maulida, N., & Adymas Pranajaya, S. (2018). Pengentasan Degradasi Minat Belajar Pada Siswa Remaja. *Tarbiyah Wa Ta'lim: Jurnal Penelitian Pendidikan & Pembelajaran*, *vol 5. (1)*, 7–15. https://doi.org/10.21093/twt.v5i1.2421

Delfita, R., Arnitya, A., Marneli, D., Fajar, N., & Nurlaila, N. (2023). Edusainstika : Jurnal Pembelajaran MIPA 95 Edusainstika : Jurnal Pembelajaran MIPA Pengembangan Modul Biologi Berbasis Learning Cycle 7E Materi Sistem Ekskresi. *Desember*, *3*(2).

Fernandez, V., Fadillah Tunnisa, L., Aulia, R., Hidayati, N., Sman,), Batu, U., & Hulu, R. (2021). *Minat Belajar Siswa Terhadap Pembelajaran Biologi Dengan Menggunakan Media Powerpoint Students'*

Interest In Learning Biology Using Powerpoint Media (Vol. 5, Issue 1). http://jurnal.um-palembang.ac.id/index.php/dikbio

Gresinta, E., & Fithah, Z. A. (2022). Analisis Minat Belajar Biologi Siswa SMA Kasih Depok di Tengah Pandemi Covid-19. In *Analisis Minat Belajar Biologi EduBiologia* (Vol. 2, Issue 2).

Gulo, A. (2022). Penerapan Model Pembelajaran Problem Based Learning Dalam Meningkatkan Motivasi Dan Hasil Belajar IPA. *Educativo: Jurnal Pendidikan*, *1*(1), 334–341. https://doi.org/10.56248/educativo.v1i1.58

Harahap, H. S., Hrp, N. A., Nasution, I. B., Harahap, A., Harahap, A., & Harahap, A. (2021). Hubungan Motivasi Berprestasi, Minat dan Perhatian Orang Tua Terhadap Kemandirian Siswa. *EDUKATIF : JURNAL ILMU PENDIDIKAN*, *3*(4), 1133–1143. https://doi.org/10.31004/edukatif.v3i4.463

Hasyim Ansyari Berutu, M., Iqbal Tambunan, M. H., Tinggi Ilmu Kesehatan Putra Abadi Langkat Jalan Suprapto no, S. R., Bingai, K., & KabLangkat, S. (2018). Pengaruh Minat Dan Kebiasaan Belajar Terhadap Hasil Belajar Biologi Siswa Sma Se-Kota Stabat. *Jurnal Biolokus*, *1 (2)*, 109–115.

Lexy J. Moleong. 2018. Metodologi penelitian kualitatif. Bandung : PT Remaja Rosdakarya.

Masalena Harefa, Natalia Kristiani Lase, & Novelina Andriani Zega. (2022). Deskripsi Minat Dan Motivasi Belajar Siswa Pada Pembelajaran Biologi. *EDUCATIVO: JURNAL PENDIDIKAN,vol1,No.2*,381–389. https://doi.org/https://doi.org/10.56248/educativo.v1i1.65

Nabila, D. A., Assyifa, M., Rahayu, R. P., Nugrah, M., Komariah, K. S., & Budiyanti, N. (2023). Pendidikan Anak Usia Dini, Remaja Dan Dewasa. *JKKP (Jurnal Kesejahteraan Keluarga Dan Pendidikan)*, *10*(01), 14–26. https://doi.org/10.21009/jkkp.101.02

Putra, I. P. O. P., Pujani, N. M., & Priyanka, L. M. (2021). Analisis Minat Belajar Ipa Pada Pembelajaran Daring. In *Jurnal Pendidikan dan Pembelajaran IPA Indonesia* (Vol. 11, Issue 2).

Riduwan & Akdon. 2019. Rumus Dan Data Dalam Aplikasi Statistika. Bandung: Alfabeta.

Resita. (2022). Analisis Hubungan Minat Belajar Terhadap Hasil Belajar Biologi Siswa Kelas XI IPA SMA Muhammadiyah 01 Pekanbaru Tahun Ajaran 2020/2022.
Skripsi.

Rezki Fedrianti, R., & Ferazona , S. (2024). Analisis Hubungan Minat Belajar Terhadap Hasil Belajar Biologi Siswa Di SMA Negeri 11 Pekanbaru Tahun Ajaran 2023/2024. *Jurnal citra pendidikan, 4*(2), 1746-1754. https://doi.org/10.38048/jcp.v4i2.3461

Simbolon Parlindungan, & Harahap Hasmi Syahputra. (2022). Korelasi Gaya Belajar dengan Hasil Belajar Biologi. *Lectura: Jurnal Pendidikan*, *13*, 273–287.

Simorangkir, A., Napitupulu, M. A., Sinaga, T., ARTIKEL Histori Artikel, I., & Pelita Pendidikan, J. (2020). Analisis Kesulitan Belajar Siswa Pada Materi Sistem Ekskresi Manusia.*JurnalPelitaPendidikan*,*8*(1),1–011. https://jurnal.unimed.ac.id/2012/index.php/pelita/index

Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta

Triyanti, M., & Nulhakim, U. (2018). Upaya Peningkatan Hasil Belajar Biologi Siswa Kelas X Menggunakan Model Pembelajaran Student Acilitator And Explaining. *BIOEDUSAINS: Jurnal Pendidikan Biologi Dan Sains*, *1*(1), 43–51. https://doi.org/10.31539/bioedusains.v1i1.246