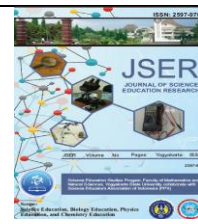




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A Phenomenological Study of Student Learning Motivation at Angkasa Lanud Adi Soemarmo Junior High School in Science Learning

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Abstract

This study aims to determine the learning motivation and motives behind the learning motivation of students at Angkasa Lanud Adi Soemarmo Junior High School in science learning. This research is qualitative in nature. The type of research is phenomenological. The subjects of this research are eighth-grade students at SMP Angkasa Lanud Adi Soemarmo Colomadu, Karanganyar, Central Java, Indonesia. The data collection techniques used are questionnaires, interviews, and observation sheets. The data validity test technique used was the triangulation technique. The data analysis technique used was qualitative description. Based on the research findings and discussion presented, it can be concluded that the learning motivation of students at SMP Angkasa Lanud Adi Soemarmo in science lessons is generally in the moderate category, with the most influential motive being showing interest. In addition, the motives behind student learning motivation in science learning include diligence in facing tasks, persistence in facing difficulties, enjoyment of working independently, ability to defend their answers, unwillingness to give up on what they believe in, quick boredom with routine tasks, and activeness in seeking and solving problems.

Keywords:

Learning motivation, Phenomenological studies, Science learning

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1. INTRODUCTION

Education is one of the determining factors for national progress because it is a means of advancing all aspects of human life in Indonesia, including economics, social affairs, technology, security, skills, moral character, welfare, culture, and national glory (Ilham, 2019). Through education, people are required to acquire knowledge and skills so that they will be able to master the fields they study in accordance with the objectives of education (Santosa & Us, 2016). Indonesia is one of the countries that fulfills its educational obligations through the enactment of Law of the Republic of Indonesia No. 20 of 2003 Article 17 paragraph (2), Article 18 paragraph (3), and Article 19 paragraph (1) concerning formal school education, including Kindergarten (TK), Elementary School (SD), Junior High School (SMP), Senior High School (SMA), and Higher Education (Law of the Republic of Indonesia No. 20, 2003).

Angkasa Lanud Adi Soemarmo Junior High School is one of the private junior high schools located in Colomadu District, Karanganyar Regency. The vision of this junior high school is to become a leading and

benchmarking school in producing religious, patriotic, and knowledgeable individuals for the glory of the archipelago. To fulfill this vision, Angkasa Lanud Adi Soemarmo Junior High School has three missions, the first of which is to provide religious education and learning in order to produce graduates who are faithful and devoted to God Almighty and have noble character. The second is to provide national education and learning in order to produce graduates who love their country, love nature, love others, and love themselves. Finally, to provide education and learning in science and technology in order to produce graduates who are intellectually, kinesthetically, and aesthetically intelligent; love science and technology; and have excellence in accordance with the interests and talents of the students (SMP Angkasa, 2024). To fulfill its vision and mission, the school holds various activities, including teaching and learning activities (KBM) at school, various extracurricular activities related to civil service, commemorative events, assemblies every Monday and Wednesday, etc. Students at SMP Angkasa Lanud Adi Soemarmo have achieved numerous accomplishments in various fields such as badminton, swimming, social sciences, etc.

Based on preliminary observations as a problem identification stage (Sudjana & Ibrahim, 2001) specifically in science learning that has been carried out in the School Field Introduction activity located at SMP Angkasa Landasan Udara Adi Soemarmo. There is only one science teacher at the SMP and teaches all classes. Several phenomena were found in student behavior during science learning. For example, there were some students during science learning accompanied by teachers and PLP students who did not follow the learning seriously, they tended to have their own activities such as talking with their friends and making noise in class. So other students who wanted to concentrate on science learning could be disturbed. This is in accordance with the results of teacher interviews that realized that there were indeed some students who had hyperactive behavior in class. In addition, students looked bored during the learning process, students tended to be passive or lacked enthusiasm in learning, did not dare to ask questions when facing difficulties, paid less attention to the lesson and did not complete assignments well and on time. The average score for students' daily tests on temperature, heat, and expansion was 35.6 out of 100, with the highest score being 88 and the lowest being 10. This score is relatively low because the school sets a minimum passing grade (KKM) of 75. Students who are less serious during learning tend to have lower cognitive scores than students who are serious about learning. Low learning motivation will weaken learning activities, which will affect the quality of learning outcomes (Rusniyati, 2021).

Based on the above phenomena, it is indicated that students of Angkasa Lanud Adi Soemarmo Junior High School have low learning motivation, where there are indicators of learning motivation that are not met by students, including being diligent in facing assignments, showing interest, being persistent in facing difficulties, getting bored quickly with routine tasks, enjoying finding and solving problems (Lita, 2012). Five of the eight indicators of learning motivation by Sardiman in 2014 were shown to be unfulfilled, so it can be seen that the learning motivation of students of Angkasa Lanud Adi Soemarmo Junior High School is low. Students who do not have learning motivation will not experience learning activities in themselves. So that it will hinder the achievement of educational goals and is a threat to the progress of the nation that must be handled appropriately (Santosa, 2016).

Table 1. Learning Motivation Indicators

Num.	Learning Motivation Indicators
1.	Be persistent in facing exams
2.	Persistent in the face of difficulties
3.	Show interest
4.	Enjoy working independently
5.	Get bored quickly with routine tasks
6.	Can defend his opinion
7.	It is not easy to let go of what you believe in
8.	Enjoy finding and solving problems

Motivation to grow and develop is influenced from outside (extrinsic) and Individual (intrinsic). Extrinsic motivation is motivation caused by factors from outside the learning situation. This motivation is not absolutely related to learning activities, for example, a child studies diligently to get a reward promised by his parents. Second, intrinsic motivation is motivation that includes learning situations that originate from the needs and goals of the students themselves. This motivation is often referred to as pure motivation or motivation that actually arises from within the student, such as the desire to acquire a certain skill (Oemar Hamalik, 2014). Research by Santosa and Us states that the factors causing low student learning motivation are extrinsic factors of 51.88% which include dynamic elements in learning and teaching of 19.01%; teacher efforts in teaching

students of 17.07% and the condition of the student's environment of 15.80%. Meanwhile, intrinsic factors are 48.12% which include student conditions of 18.04%; student abilities amounted to 16.25% and student aspirations amounted to 13.83% (Santosa & Us, 2016). The results of observations of the causes of low motivation of students at Angkasa Lanud Adi Soemarmo Middle School during science learning include the school environment which greatly influences students because if classmates talk and tend to be noisy, it will make students' concentration is disrupted, coupled with observations of the family environment that does not support the child's learning process at home so that the lack of parental or family supervision makes students act as they please, students are less interested in science lessons because they consider science lessons difficult and less supportive of their future, learning facilitators (teachers or PLP students) are less interesting during learning, this can be caused by learning methods, learning models, learning media used, etc.

There are many factors that cause students' low motivation to learn, but so far currently, there is no research that reveals the phenomenon of low learning motivation of eighth-grade students at Angkasa Lanud Adi Soemarmo Junior High School in science learning in depth, so a study is needed on this matter. One method that can be used to explore the phenomenon of low learning motivation is by using phenomenological studies. Phenomenology, according to the Big Indonesian Dictionary, is the science of the development of human consciousness and self-awareness. Phenomenological research differs from other qualitative inquiry methods that attempt to understand the essence of phenomena from the perspective of participants who have experienced them (Christensen, Johnstone & Turner, 2010 in Edless, 2015). Therefore, the focus in this type of research is not on the participants themselves or the world they inhabit, but rather on the meaning or essence of the relationship between the two (Merriam, 2007 in Edless, 2015). Phenomenological studies seek to uncover subjective meaning, search for meaning, position individuals as givers of meaning, which then results in actions based on experience (Harahap, 2020).

Based on this issue, the researcher became more curious about the phenomenon of low student learning motivation. Low student learning motivation is an important topic because it is closely related to the evaluations that schools and educators must conduct to minimize this phenomenon. Based on the explanation above, the researcher is interested in conducting a study on "A Phenomenological Study of Student Learning Motivation at SMP Angkasa Lanud Adi Soemarmo in Science Learning". Based on what has been mentioned earlier, this study aims to identify students' learning motivations during science learning and to analyze the motives behind students' learning motivation during science education. The research question is:

1. How is student learning motivation during science lessons?
2. What are the motives behind students' learning motivation during science learning?

2. RESEARCH METHOD

The research will be conducted at Angkasa Lanud Adi Soemarmo Junior High School Colomadu, Karanganyar. The location for the case study was chosen because of its relevance to the topic being researched and the phenomenon to be studied occurring at the research location.

Research studies on learning motivation to show learning motivation students refer to the type of qualitative research approach. According to Moleong in Herdiansyah, 2012, qualitative research is research that aims to understand the phenomena experienced by research subjects such as behavior, perception, motivation, actions, and so on. A qualitative approach is used because the research to be conducted requires an in-depth understanding of the individual or research subject's experiences. The method used in this research is the phenomenological study research method, in phenomenological study research, an event is interpreted in terms of its connections to ordinary people in certain situations (Moleong, 2017). According to Herdiansyah (2012), phenomenology reveals and try studies a phenomenon and its unique context experienced by an For individual, including their beliefs. Phenomenological researchers attempt to find the psychological meaning of an individual's experience of a phenomenon through in-depth research within the context of the subject's daily life.

The data revealed in phenomenological research studies are narratives, or descriptions and explanations of informants, both verbally and in written documents. Subject behavior observed in the field also becomes data in the collection of research results, and so on. Some data and data sources in phenomenological studies according to Barnawi (2018) are as follows:

1. Documentation

Documentation includes photos and video recordings taken during science lessons in eighth grade. Additionally, there are audio recordings of student interviews based on pre-prepared questions.

2. Observation

Sheet The observation sheet contains observations of eighth-grade students' activities in science learning using a scoring guideline rubric for the student learning motivation observation sheet. Scoring was carried out by the researcher and one observer.

3. Interview Sheet

The interview sheet contains interview questions based on the 2014 Sardiman indicators. The interview sheet will be used to interview students who enter the purposive sampling after distributing the learning motivation questionnaire.

4. Learning Motivation Questionnaire

A questionnaire containing statements to be answered by students will be given to all grade VIII students before conducting the interview. The data source, which served as a key instrument, was the researcher, who involved several informants. These included two primary informants with low learning motivation, two students with moderate learning motivation, and two students with the highest learning motivation in the class. This information was also supported by supporting informants from science teachers. Non-human elements, such as student grade documents, served as supporting data for the study (Darmawan, 2021).

Sample

The sampling technique is carried out in a purposive sampling (selective) namely sampling with certain considerations (Barnawi, 2018). The concept of a sample in this study is a small part of the population members taken according to certain procedures so that it can represent the population representatively. The provisions for the subjects include the following: 22 VIII grade students of Angkasa Lanud Adi Soemarmo Colomadu Karanganyar Junior High School for observation data and questionnaire distribution. Sampling technique purposive sampling used to determine the eight grade students who will conduct in-depth interviews. The subject groups studied consist of 3 to 15 members who must have direct experience with the phenomenon that is the focus of the research (Padilla, 2015). Therefore, the criteria for eighth grade students who will conduct interviews are six students consisting of two students who experience low learning motivation, two students who have moderate learning motivation, and two students who have the highest learning motivation in the class. The sampling of students interviewed is based on the results of the questionnaire.

Data Validity Test

Validity testing uses technical triangulation. Technical triangulation is the use of various data disclosure techniques applied to data sources. Testing data credibility with technical triangulation involves checking data against the same source using different techniques. For example, data about student activities in class are disclosed through interviews, then checked through classroom observations of student activities, and then through documentation. If a different situation is found, the researcher needs to conduct further discussions with the data source or others to ensure the data is considered correct (Barnawi, 2018). This study uses technical triangulation, namely interviews, observations, and documents (questionnaires). The following is an illustration of the technical triangulation that will be used:

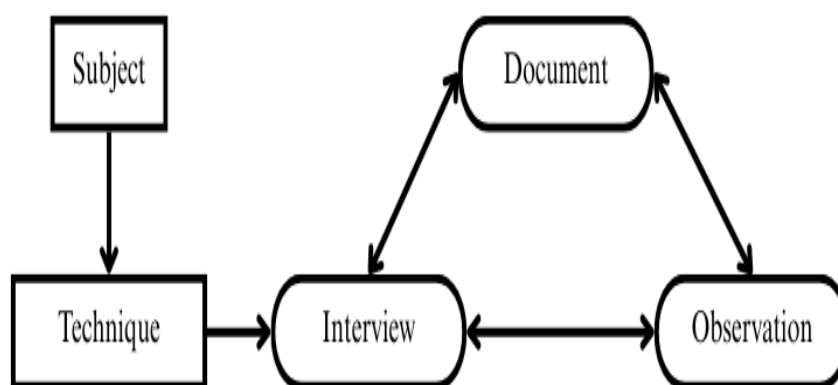


Figure 1. Triangulation of Data Collection Techniques

Instrument and Data Analysis

The data analysis technique used was descriptive narrative. According to Miles and Huberman (1994), this technique is applied in three stages:

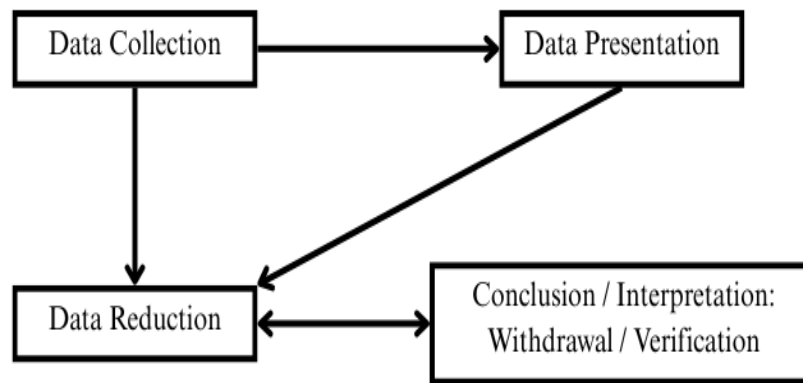


Figure 2. Qualitative Data Processing Stages

1. Data Reduction

Data reduction is a key step in qualitative data analysis. Data reduction involves simplifying, classifying, and removing unnecessary data so that it yields meaningful information and facilitates drawing conclusions. Due to the large amount and complexity of data, data reduction is necessary. This reduction stage is used to determine whether the data is relevant to the final objective. In this study, the researcher will use a phenomenological data analysis procedure, as articulated by Moustakas (1994, in La Kahija). The following is an explanation of the steps in descriptive phenomenological data analysis used in this study are epoch, bracketing & horizontalization, and imaginative variations.

2. Data Presentation

Data presentation is an activity when a set of data is arranged in an orderly manner. Systematic and easy to understand, thus allowing conclusions to be drawn. Qualitative data can be presented in narrative text (field notes), matrices, graphs, networks, or charts. Through these data presentations, the data will be organized and structured into relationship patterns, making it easier to understand.

3. Drawing Conclusions or Verification

The final step in a qualitative data analysis approach is drawing conclusions and validating the data. This is done by reviewing the results of data reduction while still referring to the intended analysis objectives. This stage aims to understand the collected information by identifying relationships, parallels, or discrepancies in order to draw conclusions that address the problem at hand (Barnawi, 2018).

Initial findings are still tentative and can be modified if subsequent data collection does not yield supporting evidence. However, the final results are credible if the conclusions of the first stage are supported by reliable data. The purpose of verification is to ensure a more accurate evaluation and impartiality regarding the suitability of data with the fundamental ideas of analysis (Herdiansyah, 2013).

3. RESULT AND DISCUSSION

3.1. Research Description

This chapter presents the research results obtained through questionnaires, in depth interviews, and observations of the research subjects. This study uses a phenomenological approach, so the presentation of the results focuses on the meaning of the subjects' experiences related to learning motivation in science learning at SMP Angkasa Lanud Adi Soemarmo.

3.2. Research Results

Questionnaire Results

The subjects in this study numbered seven subjects based on the results of the learning motivation questionnaire with a scale of Likert one to five and determined using the technique purposive sampling. Subjects are named based on their questionnaire results. For example, subject MR1, meaning MR, is the subject with the lowest learning motivation score, with 1 being the first subject in the low motivation score. Subject MS, on the other hand, is the subject with the average or median score in the class, and subject MT, on the other hand, is the subject with the highest score in the class. The questionnaire uses a Likert scale with Sugiyono's 2019 categorization and the modified assessment categories from Sugiyono 2019.

Table 2. Results of The Questionnaire

Subject	Questionnaire Result	Assessment Result
MR1	95	Low
MR2	114	High
MS1	123	High
MS2	125	High
MS3	123	High
MT1	155	Very High
MT2	158	Very High

The findings in table 2 can serve as initial indicators in determining the subjects to be interviewed and observed in order to understand students' learning motivations and their underlying motives.

Observation Results

Observations during science learning were conducted in four meetings with two observers who have educational backgrounds in science education. Analysis was carried out by interpreting subjective experiences of the subjects to understand the essence of the phenomenon of science learning motivation at SMP Angkasa Lanud Adi Soemarmo.

Table 3. Observation Results

Observation Item	Conclusion Average Observation Subject						
	MR1	MR2	MS1	MS2	MS3	MT1	MT2
The subject is diligent in doing the teacher's assignments	3	2	3	2	4	4	4
The subject is persistent in working on difficult questions	3	3	3	3	3	3	3
The subject shows interest during the learning process	2	3	3	2	4	4	4
Subjects prefer to work on questions independently	3	3	3	3	3	3	3
The subject is interested in the learning activities held by the teacher	3	3	3	3	4	4	4
Subjects can defend their opinions during discussions	2	3	2	2	3	4	4
The subject does not easily let go of what he believes in.	2	2	2	2	2	4	3
Subjects enjoy finding and solving problems.	2	3	3	3	3	3	4
Amount	20	22	22	20	26	29	32

Based on the observation results table above conducted by observer 1 and observer 2, it is noted that the average observation scores of subjects MR1 and MS2 are 20, indicating that these subjects have a motivation to learn categorized as adequate. Meanwhile, subjects MR2, MS1, and MS3 have average observation results of 22, 22, and 26 respectively, thus categorizing their motivation to learn as good. Furthermore, subjects MT1 and MT2 have average observation results of 29 and 32 respectively, categorizing their motivation to learn as very good.

Interview Results

Interviews were conducted twice per subject. After the interviews, the data obtained were transcribed. A horizontalization table was then created to facilitate review of the results. This horizontalization table uses specific codes for easier understanding. The codes are adjusted according to the source and data grouping during coding, for example, H11.MR1, which means H11 is the result of the horizontalization of the first indicator with MR1, namely the subject, as can be seen in the coding and horizontalization table in number one. Next, the code HF1.MR1 with HF1 can be understood as the result of the horizontalization of the first learning motivation factor with MR1, which means the subject, can be seen in table number one. Interviews were conducted with the subjects personally according to with interview guidelines using a voice recorder. Interviews with subjects were conducted twice at the Library of SMP Angkasa Lanud Adi Soemarmo. The results of the subject interviews

are presented in the form of interview transcripts found in the attachment of the subject interview transcription. Here is the table of interview results for all subject.

Table 4. Interview Results

Learning Motivation Indicator	Categories of Subject Interview Results						
	MR1	MR2	MS1	MS2	MS3	MT1	MT2
Be persistent in facing exams	Fulfil HI1.MR1	Fulfil HI1.MR2	Fulfil HI1.MS1	Fulfil HI1.MS2	No Fulfil HI1.MS3	Fulfil HI1.MT1	Fulfil HI1.MT2
Persistent in the face of difficulties	Fulfil HI2.MR1	Fulfil HI2.MR2	Fulfil HI2.MS1	Fulfil HI2.MS2	Fulfil HI2.MS3	Fulfil HI2.MT1	Fulfil HI2.MT2
Show interest	No Fulfil HI3.MR1	No Fulfil HI3.MR2	Fulfil HI3.MS1	No Fulfil HI3.MS2	No Fulfil HI3.MS3	Fulfil HI3.MT1	Fulfil HI3.MT2
Enjoy working independently	No Fulfil HI4.MR1	Fulfil HI4.MR2	Fulfil HI4.MS1	No Fulfil HI4.MS2	Fulfil HI4.MS3	Fulfil HI4.MT1	Fulfil HI4.MT2
Get bored quickly with routine tasks	No Fulfil HI5.MR1	Fulfil HI5.MR2	Fulfil HI5.MS1	Fulfil HI5.MS2	Fulfil HI5.MS3	Fulfil HI5.MT1	Fulfil HI5.MT2
Can defend his opinion	No Fulfil HI6.MR1	Fulfil HI6.MR2	No Fulfil HI6.MS1	No Fulfil HI6.MS2	Fulfil HI6.MS3	Fulfil HI6.MT1	Fulfil HI6.MT2
It is not easy to let go of what you believe in	No Fulfil HI7.MR1	Fulfil HI7.MR2	No Fulfil HI7.MS1	No Fulfil HI7.MS2	Fulfil HI7.MS3	Fulfil HI7.MT1	Fulfil HI7.MT2
Enjoy finding and solving problems	Fulfil HI8.MR1	Fulfil HI8.MR2	Fulfil (HI8.MS1	Fulfil HI8.MS2	No Fulfil HI8.MS3	Fulfil HI8.MT1	Fulfil HI8.MT2
Amount Fulfil Category	3	7	6	4	5	8	8

Based on the interview results above, it was found that only three indicators met the required category, thus categorizing them as low learning motivation. In addition to the interview results related to the learning motivation indicators, follow-up interviews were conducted to explore factors influencing student learning motivation in science.

Based on the analysis of the interview results of subject MR1 shows that intrinsic factors include perseverance in facing tasks, tenacity in the face of difficulties, and a pleasure in finding and solving problems. However, there are several intrinsic indicators that are not appropriate, namely the subject does not show interest, does not enjoy working independently, easily gives up on what he believes in, and is quickly bored with routine tasks. Meanwhile, extrinsic motivation seen in subject MR1 includes teacher learning when doing practicum and games. It will boost enthusiasm, but when the teacher lectures, it can get boring. There are reminders to learn, namely the boarding school administrators, the learning atmosphere, and friends.

Based on the analysis of the interview results of subject MR2 shows that appropriate intrinsic factors include being diligent in facing tasks, tenacious in facing difficulties, depending on mood which can be increased by eating, enjoys working independently, can defend his opinion, does not easily let go of what he believes by comparing answers with friends, and enjoys finding and solving problems. However, the intrinsic factor that is not appropriate is the lack of interest of the subject because the formula in science lessons is difficult. Meanwhile, for extrinsic motivation seen from subject MR2, including a conducive class, learning facilities at the boarding school that are still lacking, friends, a quiet learning atmosphere at school, the presence of reminders learning, namely parents and boarding school administrators, and the teachers' smiling learning and practicum that creates enthusiasm.

Based on the analysis of the interview results of subject MS1 shows that appropriate intrinsic factors include being diligent in facing tasks, being persistent in facing difficulties, showing interest, enjoying working independently, getting bored quickly with routine tasks such as summarizing, and enjoying finding and solving

problems. However, inappropriate intrinsic factors include being unable to defend one's opinion for fear of being wrong, and not easily letting go of what one believes for fear of being wrong. Meanwhile, extrinsic motivation seen in subject MS1 includes teacher learning when practicum and parables make the subject enthusiastic, the presence of reminders to learn, namely parents and grandmothers, a quiet learning atmosphere at school and a comfortable home, friends, cool room air, and Covid.

Based on the analysis of the MS2 subject interview results shows that appropriate intrinsic factors include being diligent in facing assignments, being persistent in facing difficulties, enjoying finding and solving problems, and quickly getting bored with routine tasks if the questions are difficult. However, inappropriate intrinsic factors include not showing interest because the subject prefers other subjects, not enjoying working independently, not being able to defend his opinion, and easily letting go of what he believes. Meanwhile, extrinsic motivation seen in subject MS2 includes friends, a conducive class, a quieter learning atmosphere at the boarding school, reminders to study from the boarding school administrators and parents, and teacher learning that creates enthusiasm, namely when there are jokes and practicum.

Based on the analysis of the interview results of MS3 subjects shows that the appropriate intrinsic factors include being persistent in the face of difficulties, enjoying working independently, getting bored quickly with routine tasks such as reading, being able to defend one's opinions, and not easily letting go of what one believes in by sticking to the subject's answers. Meanwhile, regarding motivation... The extrinsic factors seen in the MS3 subjects include study time at the dormitory being too late, conducive classes, friends, adequate learning facilities at the dormitory, reminders to study from the dormitory administrators and parents, a more conducive learning atmosphere at the dormitory, and boring teacher learning because the subjects do not understand, learning, often in class, but if the subjects do practicum they will be enthusiastic.

Based on the analysis of MT1 subject interview results shows that appropriate intrinsic factors include perseverance in facing tasks, tenacity in facing difficulties depending on mood, shows interest, enjoys working independently, gets bored quickly with routine tasks, can defend his opinion, does not easily let go of things that are believed by comparing friends' answers, and enjoys finding and solving problems depending on the subject's determination. Meanwhile, the extrinsic factors seen from the MT1 subjects include learning facilities at the boarding school that are sufficient, friends, a quieter learning atmosphere at the boarding school, taking care of nephews at the boarding school, boarding school regulations regarding the target high school, there are those who remind him to study, namely the boarding school administrators and parents, a conducive class, and teacher learning if the practicum makes him enthusiastic while the lecture makes him bored.

Based on the analysis of MT2 subject interview results shows that the appropriate intrinsic factors include being diligent in facing assignments, being persistent in facing assignments, showing interest because of ideals and the subject likes formulas, enjoying working independently, getting bored quickly with routine tasks when the subject is sick and has free time, being able to defend his opinion, not easily letting go of what he believes by comparing answers with friends, and enjoying finding and solving problems by trying independently. Meanwhile, the extrinsic factors seen in the MT2 subjects include the time at the boarding school being too late, the learning facilities at the boarding school being still lacking, friends, the quieter learning atmosphere at school, there are reminders to study namely parents and boarding school administrators, and teacher learning. if the lecture makes you bored, whereas if there is games the subject becomes enthusiastic.

The discussion is written in coherence to the data. It should not be separated from the data discussed. The example can be seen in Figure 2. The discussion focuses on linking the data and analysis to the research problems, objectives, and broader theoretical context. It can also be an answer to the question why such facts are found in the study. The discussion is written in coherence to the data. It should not be separated from the data discussed. The example can be seen in Figure 2. The discussion focuses on linking the data and analysis to the research problems, objectives, and broader theoretical context. It can also be an answer to the question why such facts are found in the study.

Table 5. Triangulation of Data Based on Observations and Interviews

Subject	Category of Observation Results	Category of Interview Results
MR1	Sufficient	Low
MR2	Good	High
MS1	Good	Moderate
MS2	Sufficient	Low
MS3	Good	Moderate
MT1	Very Good	High
MT2	Very Good	High

Based on the table 5, it can be seen that there is no significant difference between the observation data and the learning motivation interview results for subjects MR1, MS1, MS2, MS3, MT1, and MT2. Therefore, the data from subjects MR, MS1, MS2, MS3, MT1, and MT2 can be considered valid. Meanwhile, there is a significant difference between the observation data and the learning motivation interview results for subject MR2, making it invalid. In this discussion section, there will be an in-depth explanation regarding Analysis of research results conducted by researchers through in-depth interviews, questionnaire results, and observation results on subjects MR1, MR2, MS1, MS2, MS3, MT1, and MT2. Analysis of research data begins with the data coding process and is then continued with bracketing and horizontalization to then be narrated as an answer to the focus of this research, which includes the meaning of learning motivation in students at SMP Angkasa Lanud Adi Soemarmo, and the relationship between learning motivation factors of SMP Angkasa Lanud Adi Soemarmo students.

Motivation is an impulse or behavior that exists within oneself. A person aims to perform an action (Amalia & Maknun, 2021). According to the results of the questionnaire and observations of all subjects, it was found that there was a match, namely that subjects with relatively high questionnaire results had increasingly better observation results. Furthermore, the results of observations of class VIII A as a whole during daily tests showed that many students were still less diligent when working on the test. Among them, students were still talking when the test had begun, most students were unable to complete the test on time, students cheated among themselves, and some students even asked the teacher about how to answer test questions.

Based on the results of the data analysis, there is consistency between the results of observations and interviews in most subjects, namely MR1, MS1, MS2, MS3, MT1, and MT2. This consistency indicates that the learning motivation indicators observed in class are in line with the statements expressed by the subjects through interviews. According to Sugiyono (2019), the conformity between various data collection techniques (observation and interviews) indicates the validity of the data, because the information obtained can strengthen each other. Therefore, the validity of the learning motivation data in the six subjects can be accounted for.

In contrast to subject MR2, the observation results showed a different learning motivation tendency than the interview results. This discrepancy indicates a data discrepancy that renders subject MR2's learning motivation data invalid. This condition can be influenced by several factors, such as the subject's subjectivity in providing answers during the interview, the emotional state during the interview, or the presence of judgmental bias during observation. According to Moleong (2017), data discrepancies can occur when participants attempt to project a certain self-image in the interview, which does not always align with actual behavior when observed.

Thus, the triangulation results show that most of the The subject had valid learning motivation data supported by consistent observations and interviews. Meanwhile, the data on subject MR2 requires further review due to significant differences that make it less suitable for drawing research conclusions. Based on the results of triangulation of observations and interviews with all subjects, it can be concluded that the learning motivation of students in this class is generally in the moderate to high category. This is evident from the fact that most subjects consistently demonstrated quite good learning motivation, namely in moderate–good (MS1 and MS3) and high (MT1 and MT2) categories. A small number of subjects remained in the moderate–low category (MR1 and MS2), indicating the need for further support to improve their motivation. Meanwhile, there was one subject (MR2) with invalid data due to significant differences between observation and interview results, so it could not be used as a basis for drawing individual conclusions. Overall, the tendency of the majority of students indicates that this class has quite strong learning motivation with a dominance of the moderate to high category, although there are still individual variations that require attention.

According to the analysis of the interview results from the seven subjects, it is known that Motivational factors are divided into two, namely intrinsic factors and extrinsic factors. Edu, et al ((2021) states that motivation is a psychological process that directs individual behavior towards desired goals and is influenced by both intrinsic and extrinsic factors. The most influential intrinsic factor in the subject's learning motivation is the subject's low interest in science subjects. This is in accordance with research conducted by Rubiana that hopes, needs, and aspirations influence the learning motivation of junior high school students majoring in science at Islamic boarding schools (Rubiana, 2020). In addition, other intrinsic factors include student mood, student curiosity, and ideals. Meanwhile, based on Sardiman's indicators (2014), all subjects were able to fulfill several indicators, including being diligent in facing tasks, tenacious in facing difficulties, enjoying working independently, being able to defend their answers, not easily letting go of what they believe, quickly getting bored with routine tasks, and being active in finding and solving problems. However, in the indicator showing interest in science lessons, some still appear less than optimal.

Extrinsic factors influencing the subject include learning methods, teachers, friends, boarding school regulations regarding predetermined high school goals, parents, classroom atmosphere, learning atmosphere,

and infrastructure. Previous research has shown that incorporating engaging and relevant learning experiences to students' daily lives and utilizing media Engaging learning can increase their interest in learning about natural science (Laili, 2017; Marjito & Nurhalipah, 2018). Furthermore, positive emotions such as joy and enthusiasm, along with attentive teaching, can also play a role in stimulating students' interest and motivation in this field. Intrinsic factors, such as intelligence, attention, motivation, and student interest, can also influence students' difficulties in learning science (Helentina, 2017). Therefore, educators and guardians must find ways to increase students' interest in science to foster high motivation. One way to achieve this is by providing engaging learning experiences, such as icebreaker. Based on research conducted by Febriandari (2018) & Nuryana & Sunardin (2020), the use of creative icebreakers by teachers during the learning process has a significant impact on student learning outcomes. This, in turn, increases student motivation to learn. Therefore, teachers need to utilize innovative icebreakers to make the learning process more engaging for students. Icebreakers are the process of changing a situation from boring, monotonous, and stressful to a relaxed, refreshing, alert, and engaging situation so as to attract the attention and interest of those listening or observing the speaker in front of the class (Marzatifa, Agustina, & Inayatillah, 2021 in Mulyadi et al., 2023). Incentives and external circumstances are examples of extrinsic factors (Rubiana, 2020). One example of an external condition occurred during Covid-19 in subject MS1. This is in accordance with Amalia and Maknun's research, namely that during the Covid-19 pandemic, students experienced a decrease in motivation because learning was implemented online (Amalia & Maknun, 2021).

Learning motivation is influenced by classroom management. Clear rules, A controlled and supportive environment, as well as active student participation in the learning process, are all made possible by effective classroom management. A well-managed classroom creates a supportive environment where students feel free to voice their opinions, interact with each other, and receive encouragement from the instructor. Thus, effective classroom management increases student motivation and learning efficiency. In addition, it has It has been proven that the use of learning media has a significant impact on student learning motivation. Students can have a more dynamic and engaging learning experience when relevant and engaging learning materials are used. Images, films, and simulations are examples of learning media that can help convey information in a more engaging and visual way, thus encouraging student participation (HD & Darmawan, 2023).

Faristin's research identified intrinsic factors. When students feel satisfied with their exam results, they lose their drive and ambition to succeed, which often leads to procrastination. A lack of optimism and goals for the future leads to students being less motivated and eager to succeed, while a lack of desire and need to learn impacts curiosity and interest in learning. Uninteresting learning activities are an example of an extrinsic factor that can affect student grades by leading to a lack of learning aptitude. A less-than-ideal learning environment, such as a noisy and uncool room, can lead to attention problems (Faristin, 2023). This aligns with research on factors that motivate children to learn at SMP Angkasa Lanud Adi Soemarmo.

Teachers must also continually find new ways to implement learning activities to inspire students. If teachers use new and creative ways to integrate engaging teaching approaches throughout the learning process, students will be motivated (Amalia & Maknun, 2021). Creating a relaxed and friendly environment is crucial for increasing learning motivation (Mulyadi et al., 2023). There are several variations in the elements that drive learning, in line with the general topic of student learning motivation. During the research, several Teaching and Learning Activities (KBM) were less than optimal, particularly in science lessons, due to the limited number of teachers, with only one for science subjects. Students often ask for permission to miss lessons due to ceremony rehearsals. This can be minimized by holding them outside of class hours. However, because students from Islamic boarding schools have limited time at school, Therefore, transfers outside of class hours cannot be made. Therefore, coordination between the school and the Islamic boarding school is essential.

4. CONCLUSION

Based on the research findings and discussions that have been presented, It can be concluded that the learning motivation of students at Angkasa Lanud Adi Soemarmo Middle School in science learning is generally in the moderate category with the most influential motive being showing interest. In addition, the motives behind students' learning motivation during science learning include being diligent in facing assignments, being persistent in facing difficulties, enjoying working independently, being able to defend their answers, not easily letting go of what they believe in, getting bored quickly with routine tasks, and being active in finding and solving problems. Researchers provide the following recommendations to relevant parties Based on research findings: To improve learning outcomes, teachers are expected to foster and strengthen students' intrinsic and extrinsic motivation. To encourage students to enjoy a topic, teachers must find creative ways to present it if some, or perhaps all, students dislike it. To keep students interested in learning or paying attention to material

they dislike, teachers can, for example, use learning media that complement the subject matter. Students must be enthusiastic about learning not only because they enjoy the material but also because they want to learn material they find less interesting. Otherwise, their learning outcomes will be affected. For example, presenting oneself as someone who values learning in certain situations, perhaps with musical accompaniment or even in a pleasant environment, can help someone stay enthusiastic about learning even if the subject is not their favorite. This research can serve as a guide for future researchers as they develop new studies. Although this study only looked at one sub-district, it can be expanded in the future to look at more Angkasa Junior High Schools in Indonesia.

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