# ANALYSIS OF STUDENT LEARNING MOTIVATION IN CHEMICAL LEARNING

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**Abstract**

The purpose of this survey is to find out how much the motivation of students in class XI MIA learning chemistry at MAN 1 Tanjung Jabung Timur. This type of research is a survey with cross sectional design type. The subjects of the study were 32 students of class XI MIA. Research instruments using a questionnaire distributed to students and observations made while learning chemistry took place. Analysis of the results of research data in the form of quantitative data analyzed with descriptive statistics, so that it can present the results of research with distribution tables and piechart diagrams. The results of the questionnaire data with an average score obtained by students by 71 points, and included in the category quite well. Students in class XI MIA MAN 1 Tanjung Jabung Timur get survey results for each category as follows: The learning motivation of class XI MIA students at MAN 1 Tanjung Jabung Timur was obtained by an average of 71 points, which was categorized as fair. The results of the questionnaire data are presented in five categories. Unacceptable category got a percentage of 0%, less category got a percentage of 13%, fair category got a percentage of 62%, good category got a percentage of 25%, and very good category got 0%.

**Keywords**: learning motivation, chemistry, analysis

## INTRODUCTION

Education is the foundation that a person must have to show that he has an adequate and quality background knowledge. The success of the education sector in a country can be seen from the quality of its human resources so that they are able to compete in getting the right job and a decent income. Through education, quality and competitive human resources can be produced (Novalinda, Kantun, & Widodo 2017). The success of the education system has aspects that influence it. The aspects that affect the success of education are curriculum, facilities and infrastructure, teachers, students and methods. Activities carried out by teachers and students in relation to education are called teaching and learning activities (Wijayati, Kusumawati, & Kushandayani, 2008). A good teaching and learning system will affect the success of learning.

The definition of learning itself according to Hamdu and Agustina (2011), is that learning is a process carried out by individuals to obtain new behavioral changes as a whole, as a result of the individual's own experiences in interaction with their environment. Learning activities that occur must involve various parties, namely the reciprocal relationship between teachers and students. So that teaching and learning activities that occur will be able to realize the goals of learning. The learning process that occurs is still limited to the transfer of knowledge alone so that it does not lead to active participation of students to consciously build their knowledge independently. This causes students to be less motivated in participating in learning activities (Bahriah & Abadi, 2016). The success or failure of the achievement of educational goals depends on the learning process experienced by students as learners. The learning process is a process of behavior change as a result of interaction with the environment. These changes will be evident in all aspects of the learning process, namely cognitive, affective, and psychomotor aspects (Novalinda, Kantun, & Widodo 2017).

One of the factors that influence the success of learning is the motivation to learn. The definition of motivation according to Hamdu and Agustina (2011) is a conscious effort to drive, direct and maintain a person's behavior so that he is motivated to act to do something so as to achieve certain results or goals. Five indicators of learning motivation are interest, attention, persistence, participation, and effort in learning (Bahriah & Abadi, 2016). The emergence of high learning motivation during learning will also affect the learning atmosphere and students' curiosity to better understand the material to be studied. On the other hand, students who do not have motivation to learn will show an attitude that is not enthusiastic in learning, there is no curiosity about the subject matter, and sometimes do other activities that can distract during the learning process, thereby disrupting concentration which will result in less than optimal learning outcomes. Especially because there is no encouragement to learn in these students.

The basic components of motivation include several aspects including needs, behavior and goals. The three aspects above need to be owned by each individual, in this case a student in the process of achieving the desired goals, namely high and good learning outcomes (Saputra, Ismet, & Andrizal, 2018). High learning motivation will have an impact on student learning outcomes and achievements. In accordance with the results of research by Nashar (2004), that the learning motivation that students have during learning plays an important role in increasing student achievement in certain subjects.

One of the subjects that must be taught at the high school level is chemistry. Chemistry is part of the natural science that students learn which in its context is very close to everyday life (Yakina, Kurniati, & Fadhilah 2017). Chemistry is a branch of science that has a major influence on the development of science and technology, in addition to other sciences. Until now, chemistry learning in schools has generally not shown satisfactory results (Wijayati, Kusumawati, & Kushandayani 2008). Chemistry subject is one of the difficult subjects for most high school students. Students consider learning that uses high calculation and analysis concepts to be a difficult subject. The difficulties faced by students with chemistry subjects can be caused by two factors, namely internal factors that come from themselves, and external factors that come from outside the students. Therefore, learning motivation is included in the internal factors of the learning difficulties of students, researchers

## METHOD

The type of research method used is a type of survey with a cross sectional design type, which is a research that is conducted only once and at a certain time. The sampling technique used was accidental sampling, because any class that will be used can be sampled in the survey at that time. The sample in this survey was students of class XI MIA MAN 1 Tanjung Jabung Timur totaling 32 students consisting of 10 male students and 22 female students. The data collection instrument used was a questionnaire, which is a list of questions given to other people who are willing to

respond to user requests (Riduwan, 2007). In the questionnaire, there were 23 statements that the students would do with a check mark or cross. The motivation that you want to know in this questionnaire is related to the motivation that comes from within the student (internal). The statements in the questionnaire contained students' habits and responses during the chemistry learning process. In addition to the questionnaire, observations were also made using the observation sheet that was filled in by the researcher, regarding the attitudes and responses of students during chemistry learning.

The results of the questionnaire data will be in the form of quantitative data, with the analysis used is descriptive statistics, namely statistics that will describe or provide an overview of the results of the sample data. Presentation of data from the questionnaire uses distribution tables and pie charts (piechart). The distribution table can be used in determining each characteristic group from the results of the questionnaire data, based on the calculation of the interval distance. The interval distance formula used is based on the formula from Widoyoko (2016), as well as the results of the calculation of the interval distance and its criteria will be explained as follows:

**Table 1.** Score and Criteria of Learning Motivation

| Score | Criteria |
|---|---|
| 23-41,4 | Unacceptable |
| 42,4-59,8 | Less |
| 59,8-78,2 | Fair |
| 79,2-96,6 | Good |
| 97,6-115 | Very Good |

## RESULTS AND DISCUSSIONS

The results of the survey that was carried out by distributing questionnaires to class XI MIA MAN 1 Tanjung Jabung Timur students will be described in Table 2.

**Table 2.** Recapitulation of Characteristics of Learning Motivation

| Score | Criteria | Number of Students |
|---|---|---|
| 23-41,4 | Unacceptable | 0 |
| 42,4-59,8 | Less | 4 |
| 59,8-78,2 | Fair | 20 |
| 79,2-96,6 | Good | 8 |
| 97,6-115 | Very Good | 0 |

Based on the table above, it is known that no student got a score with unacceptable and very good criteria. more than half of the students obtained results with fair criteria. while the average score obtained is 71 points and it is in the fair category. The lowest score obtained by students was 49 points, while the highest score was obtained with a score of 85 points. The percentage result of each characteristic of motivation to learn chemistry will be described in Figure 1.
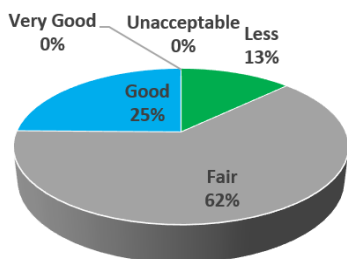


**Figure 1.** The percentage of the characteristics of the motivation to learn chemistry

Overall, the average grade XI student of MAN 1 Tanjung Jabung Timur has a fairly good motivation to learn chemistry or is in the moderate category. This proves that in chemistry learning, more than half of the students in the class have different learning motivation problems, but the problems students have do not really affect student learning outcomes. This should be a separate reference for researchers who are also chemistry teachers in class XI MIA in increasing student motivation. Only a few students reached the minimum completeness value limit. Some of these students do have good learning motivation than other students who have poor learning motivation. So, it can be interpreted that motivation has an influence on student learning outcomes and student achievement. According to the research results of Saputra, Ismet, & Andrizal (2018), internal factors, namely learning motivation, have a positive and significant influence on student learning outcomes. The strength of the relationship between learning motivation and

student learning outcomes is very strong. One of the factors that influence student achievement is motivation. With motivation, students will study harder, be resilient, diligent and have and have full concentration in the learning process. Motivation encouragement in learning is one of the things that needs to be raised in learning efforts at school, Hamdu & Agustina (2011). The survey results that have been obtained can be used as a benchmark for researchers who are also teachers of chemistry subjects in class XI MAN 1 Tanjung Jabung Timur, so that they can determine the solutions that will be used in increasing student motivation and learning outcomes.

The survey results are in accordance with the results of observations made during the chemistry learning process. Only a few students who are active in learning, have a sense of curiosity in understanding the material being discussed, are active in question and answer, discussion, and the stage of grasping the questions in the material. The enthusiasm and motivation of students to understand the material is still low. Because some of the students feel less interested in subjects they think are difficult. Students choose to be silent and do not want to ask questions about material that has not been understood, rather than asking further questions to better understand the material. If a student has motivation to learn in him, then the student will participate in teaching and learning activities well. Listening and trying to understand the material taught with a full sense of responsibility. Provide response and feedback to teacher explanations, such as asking questions about parts of the material that are not yet understood, and so on. This is in accordance with the opinion of Sudjana, (2016) that the motivation that exists in students is indicated by the interest and attention of students towards lessons, high enthusiasm for carrying out learning tasks, and responsibility for doing their learning assignments, as well as the reactions shown by students to stimuli. given by the teacher, and have a sense of pleasure and satisfaction in doing the assignments given by the teacher.

Learning motivation can be in the form of intrinsic motivation (which is contained in students (individuals), while extrinsic motivation is encouraging the behavior of a person that is outside the actions of the student), Saputra, Ismet, & Andrizal (2018). The efforts made by the teacher to the situation in the classroom are important to do. Teachers can direct activities in learning into things that are interesting and that are liked by students. So that it can divert students' attention to teaching and learning activities properly. Teachers as educators and teachers are tasked with strengthening student learning motivation in schools. In addition, the role of parents and the surrounding community is also important for student motivation. In accordance with the opinion of Salahuddin (2018), that the learning environment is one of the important factors that affect student behavior. The learning environment that is meant is the environment of family, friends, teachers and the surrounding community. Parents and community members are tasked with strengthening student learning motivation at home and in the environment on an ongoing basis (Saputra, Ismet, & Andrizal, 2018).

Besides the family environment, friends are the first social environment for teenagers to learn to interact with other people. Adolescent friendship relationships with peers tend to be closer than with their families, this is because teenagers spend more time in school activities, extracurricular activities, and activities outside of school with their peers (Salahuddin, 2018). Like, good association with friends who have high enthusiasm and motivation to learn will affect the attitude and learning patterns of a student. Conversely, association with friends who do not have enthusiasm and motivation to learn will affect the behavior and attitudes of a student towards the attitudes and learning patterns of these students. Therefore, it is not only the responsibility of a teacher or educator regarding the learning motivation of students, but the most important thing is that students themselves must have learning motivation and awareness in understanding and studying the material that has been taught by teachers in school, but also people. The people around must also provide direction and support to students in increasing their motivation to learn.

## CONCLUSION

The learning motivation of class XI MIA students at MAN 1 Tanjung Jabung Timur was obtained by an average of 71 points, which was categorized as fair. The results of the questionnaire data are presented in five categories. Unacceptable category got a percentage of 0%, less category got a percentage of 13%, fair category got a percentage of 62%, good category got a percentage of 25%, and very good category got 0%. The results of the observations made during the lesson show that on average the attitudes and behavior of students still do not have good learning motivation. Still tend to be less active and indifferent during the teaching and learning process. Meanwhile, students who have good motivation to learn show good attitudes and behavior in the teaching and learning process. Have a passion for learning and are active during the learning process.

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