

The analysis of motivation and students learning independence in learning biology in SMAN 1 Lalan during the Covid-19 pandemic

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ABSTRACT

This study aims to analyze and determine the factors that influence students' motivation and independence in learning biology in SMAN 1 Lalan during the Covid-19 pandemic. The research method used is descriptive qualitative. The subjects of this study were students of class X IPA, XI IPA, and XII IPA, and biology teachers. Data were collected by direct observation, questionnaires for students via a Google form, and direct interviews with teachers and students. Data analysis was performed using Miles and Huberman's interactive analysis technique. The results showed that students' learning motivation was in the high category. Although some students have difficulty understanding the material and are sometimes sleepy due to the online learning process, students try to be enthusiastic about learning. While students' independence learning shows that students' independence in learning is also in the high category, they try to follow the online learning process. Although being able to access the internet is sometimes hampered by signals, students who do not have laptops and cell phones are still found. This shows that the factors that influence students' learning motivation and independence in online biology learning at SMAN 1 Lalan include the goals to be achieved, a sense of desire to succeed, student conditions, difficulties in accessing the internet, the role of parents, the role of teaching and learning, environmental conditions.

Keywords: *learning motivation; independent learning; online learning*

INTRODUCTION

The Coronavirus dissemination in 2020 that spread to almost 215 countries including Indonesia had given an impact on various living sectors including the educational field (Sadikin & Hamidah, 2020:215). Learning practices in all educational stages have been experiencing changes to depress the spread rate of Covid-19 by implementing the teaching and learning processes online. It has been stated in the circular letter of the Indonesian Minister of Education and

Culture No. 4 of 2020 on the Implementation of Educational Policy in the emergency of Covid-19 outbreak.

Online learning becomes an innovation in education to respond to the challenges in the availability of learning sources disparity. The fruitfulness of one model or learning tool depends on teachers' and students' characteristics (Fitriyani, et.al., 2020:166). According to Yuliani, et.al. (2020:2), online

learning focuses its learning on students so it uses student-centered learning as its approach. The approach focuses on students' needs by directing them to be independent in learning and not always rely on teachers.

One of the consequences of online learning is it affects teachers' and students' interactions. Those who previously get direct interaction in the classroom must change their interaction form in a limited virtual room. Teachers are demanded to provide wellness in education, create a conducive atmosphere for learning, and be creative and innovative in using attractive learning tools so that students grasp the learning materials and objectives of learning can be achieved. Other than model and learning tools used by teachers, one of the indicators of success in learning relates to students' motivation (Aina, et.al., 2021:2).

Motivation is one's conscious or unconscious stimulus in doing activities to gain one's goals. Motivation comes from one's self and others, either teachers, families, or friends. Students who have learning motivation will be serious and attracted to learning, thus, they get good results in learning. However, students who do not have learning motivation will easily get bored with learning. An occupied learning motivation will urge students to be

actively performed in class (Fauziah, et.al., 2017:48).

Other than learning motivation, one of the other success factors in learning is learning independence. Learning independence is a major factor in online learning because students have the consciousness to learn by not relying on others and become responsible for gaining their intended goals (Yuliati & Saputra, 2020:143). One who has high learning independence will not rely on others in learning and will be independently initiated to look for relevant learning sources to get better learning quality (Aulia & Armiati, 2019:813).

Based on the previous study by Rusmiyati (2017:84), shows there is a significant and positive effect between learning independence and the learning performance of grade X students. It means that the higher students' learning independence, the higher students learning performance. However, according to Setiaji, et al. (2021:61), learning independence directly has a significant and positive effect on the learning motivation of online learning.

SMAN 1 Lalan becomes the place for research because geographically it is located in Bandar Agung Village, Lalan District, Musi Banyuasin Regency. Its road access among villages is not yet appropriate, which is still a dirt road that hard to be passed through, particularly in

monsoon. Therefore, the teaching and learning activity in SMAN 1 Lalan requires to be analyzed during online learning. This situation becomes a consideration if students cannot attend school and join the teaching and learning process due to inappropriate road access, especially in the monsoon. Other than that, SMAN 1 Lalan is the best school in Lalan District and is accredited by A. Thus, the school is much in demand by students who are concerned about enrolling in the school.

Based on the results of the pre-research interview with the biology teacher, it is found that during online learning there is a decrease in students' learning motivation. This is observed in students' partial participation in learning. Thus, this action can cause a bad impact on students' learning results. The teacher has reported that only a few students are present during online learning. While the results of the interview with students show there are still students who don't have mobile phones and face network problems. Both problems cause less effectiveness in students' learning process. Other than that, students are getting bored and facing difficulties in understanding the materials due to online learning in which they cannot learn face to face. Therefore, this learning process faces many changes in which two of which are related to motivation and learning independence as well as give an impact on students' learning results.

This study aims to analyze and find out factors that affect motivation and students' learning independence in Biological learning in SMAN 1 Lalan during the Covid-19 pandemic.

RESEARCH METHOD

This study was carried out on 17 March 2022 in SMAN 1 Lalan. The subject of this study was 156 students who came from five classes namely X IPA, XI IPA 1, XI IPA 2, XII IPA 1, and XII IPA 2, as well as 2 biology teachers. This study was a descriptive qualitative study. The data was obtained from observation, interview, questionnaire, and documentation. The data source of this study was the score of students' daily examination results.

The data collection technique was using observation by doing direct observation to obtain valid evidence in the proposed report. The data collection was carried out by taking notes of the observed information during the research process. The result of the observation was made in the form of a field note that would be arranged after the observation. Data collection from the interview was proposed to two biology teachers and five students to obtain data that was related to motivation and students' independence in learning biology online. Questionnaire sheets of students' motivation and students' learning independence in learning biology online were given to the students of X IPA, XI IPA, and XII

IPA. The questionnaire sheets were given to find out students' motivation and students' learning independence in learning Biology. The spread of the questionnaire was carried on via Google form. The documentation of this study was a compilation of research photos and noteworthy notes in the area as physical evidence of the research and documentation based on data from students' daily examinations.

The data validity of this study was tested using the triangulation source and triangulation technique. In the triangulation technique, the researcher checked the data validity that was obtained from the informant as the research subject to gain profound information. In the triangulation technique, the researcher checked data validity through different data collection to gain data from similar data sources. If the data-checking technique generated different data, the researcher would be doing the following discussion with the related data sources to validate the data. Thus, the researcher was able to

obtain the required data related to motivation and learning independence in learning biology online.

The data analysis technique of this study was qualitative data analysis. It was carried out in an interactive analysis way that consisted of three stages of data analysis. The stages were data reduction, data presentation, and making a conclusion or verification. The implementation procedures of this study were preparation, implementation, and accomplishment.

RESULTS AND DISCUSSION

Learning Motivation

The questionnaire results for students' learning motivation in biology courses given to all students of X IPA, XI IPA, and XII IPA in SMAN 1 Lalan are 156. However, only 145 students answered and 11 students didn't answer it. The result of questionnaire fulfillment on students' learning motivation can be look in Table 1 below:

Table 1. The result of the Questionnaire on Students' Learning Motivation in SMAN 1 Lalan

Indicators	No.	Items of Statement	Answers choices	
			Yes (%)	No (%)
School attendance	1.	I attend the online teaching and learning process in the biology course	85,52	14,48
	2.	I do not attend the online teaching and learning process in the biology course	13,79	86,21
	3.	I follow all courses	13,10	86,90

Follow the teaching and learning process in class	4.	I do not follow courses that are not interesting to me	31,03	68,97
Learning at home	5.	I study regularly outside the class hours	74,49	25,51
	6.	I study outside class hours only if there is homework or an exam.	32,41	67,59
Attitude on difficulties	7.	I repeatedly try to do the difficult biology questions	73,80	26,20
	8.	I will ignore the difficult biology questions if any	39,31	60,69
The efforts to solve problems	9.	I will try my best in finding the answer to the difficult biology questions	62,76	37,24
	10.	I am too shy to ask the teacher when I found difficulty in understanding the biology materials	44,82	55,18
Habits in following the course	11.	I always listen to the teacher's explanation	76,56	23,44
	12.	I rarely do pre-reading for the materials that are going to be taught	60,69	39,31
Spirit in following the teaching and learning process	13.	I always ask the teacher whenever I did not understand the materials	68,97	32,03
	14.	I am frequently inactive when the teacher explains the materials	29,65	70,35
Willingness to be an achiever	15.	I always feel dissatisfied and want to get a better result	80,69	19,31
	16.	I feel enough when I get a less satisfying result	34,48	65,52
Results qualification	17.	The good performance in learning comes from my strive	66,21	33,79
	18.	I receive the bad learning performance joyfully without doing additional effort	24,82	75,18
Task or homework completion	19.	I always do my task or homework by myself	82,76	17,24
	20.	I was cheating in doing the task because I did not have the willingness to finish the task	15,86	84,14
Using chances outside the class hours	21.	I prefer reading a book outside the class hours	55,18	44,82
	22.	I never study outside the class hours	20,68	79,32

Based on Table 1, in the learning perseverance dimension on following teaching and learning process indicator, students who follow all courses are 13,10%. The reason is that they adhere to school regulations. While 89,90% of students who do not follow the all courses said that they get bored with online learning and have a problem with the internet connection so they

cannot follow until the last course. This is supported by the work of Izzatunnisa, et al. (2021:12) who stated that the most significant constraint faced by students while learning at home is the lack of internet access and electronic devices. This is because not all of the students have those learning facilities, particularly for the family whose parents have an economic crisis, lost their job, or

regions that hard to reach out for the internet.

The persistence in facing difficulties dimension on the attempt in facing difficulties indicator shows if students find difficult questions, thus the students will try to complete them. They are about 62,76% and excuse that they wish to get maximum score. While 37,24% of them state that they have no desire to think harder. The attitude on difficulties indicator shows that 73,80% of students repeatedly try to do difficult biology questions. The reason is that they like biology courses. On the other hand, 26,20% of students have no willingness to do the difficult biology questions. The dimension of interest and focus in learning on habits in following the course indicator shows about 76,56% of students who listen to the teacher's explanation. Their reason is to get an understanding of the materials given by the teacher. While 23,44% of students state a reason that they get inactive during the online learning process.

This is by Nurfaisal (2021:1806). The availability of learning facilities such as mobile phones or laptops and the internet quota as well as the internet network is needed in the learning practice. The unstable network can lead to some problems such as tardiness in connection, teacher's sound and materials which are unsynchronized,

students cannot attend the class if the wi-fi not connected, bad education quality, the content is no accurately delivered, direct interaction is not possible, insufficient data availability, dissatisfied with task changing, diminished academic performance, unprepared class design, diminished class understanding, dissatisfaction of class, assessment, administrative, relational connection, and educational environment.

The dimension of being achievers in learning on willingness to be an achiever indicator shows about 80,69% of students who excuse that they wish to get a better learning result. Whereas, 19,31% of students excuse that they feel quite satisfied with the results they have achieved. The dimension of learning independence on the indicator of task or homework completion shows about 82,76% of students who excuse that they can do their homework. While 17,24% of students said that they feel unsure of themselves.

Students' learning motivation was found by the Biology teacher on online learning. According to the interview with two Biology teachers in SMAN 1 Lalan, they stated that there were students who had not presented yet when the class started. This was because of the unstable internet connection for online learning so students were late joining the class. Students' motivation was

also influenced by attendance and students' motivation in following the teaching and learning process. Based on the interview with students of XI IPA in SMAN 1 Lalan, they said that most students attended the class and followed the teaching and learning process. However, sometimes they joined the class late when they got a bad internet connection. Other than that, learning motivation is also influenced by students' liveliness in asking. This was by the interview result which reported that some students would ask if there were unclear materials.

According to the interview with the two Biology teachers, they stated that some students did not do their tasks or homework given by the teacher. Other than that, the teacher found that some of the students were belated in submitting homework because of a bad internet connection. Further, the students stated an additional excuse that they had no internet quota to access online learning. Students' motivation is also influenced by students' attendance in following the teaching and learning process. Based on the interview with students of X IPA, they said that they attended the teaching and learning

process timely, particularly in the biology course. The reason was that they loved biology courses.

Based on several elaborations above, it can be concluded that students' learning motivation in learning Biology in SMAN 1 Lalan during the Covid-19 pandemic is high. However, according to students' learning motivation questionnaire results on following teaching and learning process in class indicator, on question item number 3 there are 13,10% of students followed all courses. Whereas, about 86,89% of students did not join until the last course. This could happen because students got bored with online learning and the bad internet connection so students could not join until the last course.

Learning Independence

The questionnaire result of learning independence was given to 156 students of X IPA, XI IPA, and XII IPA in SMAN 1 Lalan, 145 students answer the questionnaire. Here is the result of the questionnaire fulfillment on students' learning independence factor in Table 2 below:

Table 2. The questionnaire result of students' learning independence in SMAN 1 Lalan

Indicators	No.	Items of Statement	Answers choices	
			Yes (%)	No (%)
Confidence	1.	I am courageous in stating opinions	82,76	17,24

	2.	I doubt I can handle the problems or obstacles I face in my learning activity	15,86	84,14
Independence	4.	I can complete my homework by myself	77,25	22,75
	5.	I am not satisfied with my result study	22,75	77,25
Making decisions	3.	I can handle my problems	68,97	31,03
	6.	I am in a rush to taking decisions	17,93	82,07
Responsible	7.	I take responsibility for my actions	74,49	25,51
	8.	I am disassociated from the syllabus	21,37	78,63
Competitive	9.	I have high curiosity	67,59	32,41
	10.	I dislike new things in learning	23,44	76,56
Discipline	11.	I consciously prepared my handbooks	77,94	22,06
	13.	I break class and school rules	25,51	74,49
Active in learning	12.	I can make a summary based on the teacher's explanation	13,79	86,21
	14.	I did not state the result of my opinion	30,28	69,72

Based on Table 2 the questionnaire result on the confidence indicator shows that 82,76% of students are courageous in stating opinions because they wish to get good scores. Whereas, 17,24% of students excuse that they are less courageous to give their opinions. The independence indicator shows 77,25% of students state they can complete their homework independently without others' help. On the other hand, 22,75% of students excuse that they are indecisive with their selves. Based on research by Khaeruman & Saleh (2012:88) it stated that confidence also becomes a base of self-motivation to succeed. To be motivated, someone has to be confident. The one who gets calmness and confidence should have self-motivation. Many of the inferiors rise beyond their deficiency and defeat their adversity by having self-confidence and motivation to grow and switch their problems into a challenge.

On making decisions indicator shows about 82,07% of students excuse that they can handle their problems and are not in a rush to taking decisions. Whereas, 17,93% of students excuse that they cannot handle their problems. On responsible indicator shows 78,63% of students state that they implement the syllabus as well as possible to get maximum score. While 21,37% of students make an excuse that they did not prepare the syllabus. On competitive indicator shows 76,56% of students excuse they love new things in learning and they have a high curiosity that they can gain much knowledge. On the other hand, 23,44% of students said they are quite satisfied with their knowledge.

The discipline indicator shows 77,94% of students said they had already gotten used to preparing their books before the course started. Whereas, 22,06% of students said they were not ready yet to join online learning. On active learning indicator,

shows that 13,80% of students excuse that they attempt to be active in the teaching and learning process. While 86,20% of students excuse they got less understanding of the materials given by the teacher.

Students have thought that mobile phones are helpful in online learning. However, several students have not had it. Based on the interview with students of XII IPA in SMAN 1 Lalan it is found that some of them understood how to access the application. However, other students are found not to have mobile phones so they need to come to the school to take or submit the homework.

Based on the interview with the biology teacher named Mrs. Nugraheni Ngesti Rahayu, S.Pd., it is found that only several students attended the online class. The reason was that of the unstable internet connection that students were late when the class started. In addition, the two biology teachers have stated that some of the students complete their homework while others don't. Thus, if the internet connection was bad, students would be given additional time to submit their homework. Under the work of Rosalie (2020:25), through online daring students can learn as usual and not miss the lesson materials due to its flexibility. However, online learning is not well-

welcomed by all students because they thought it has more difficulty than conventional learning. In addition, the must-have internet quota for students becomes the biggest difficulty for them.

Based on some elaborations above, it can be concluded that students' learning independence in biology learning in SMAN 1 Lalan during the Covid-19 pandemic is high. However, following the questionnaire result of students' learning independence on the indicator of active learning and the item of statement number 12, there are 13,70% of students are courageous in making a conclusion based on teacher explanations. Whereas, 86,20% of students are afraid of making a conclusion based on teacher explanations because they got difficulty understanding the materials given by the teacher. It can happen due to an unstable internet connection, so the teaching and learning process is not running optimally.

Learning Result

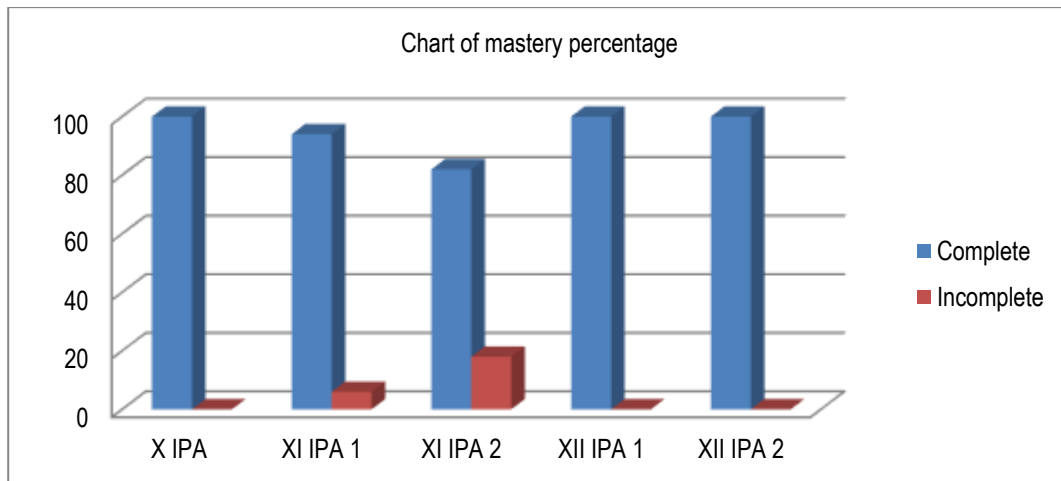
The data of students' learning results become secondary data in Biological online learning in SMAN 1 Lalan. The result of students' daily examination can be seen in Table 3 below:

Table 3. The Daily Examination Result of SMAN 1 Lalan’s Students

No.	Class	Total of Students		Average
		Complete	Incomplete	
1.	X IPA	36	0	80,08
2.	XI IPA 1	33	2	74,88
3.	XI IPA 2	28	6	73,47
4.	XII IPA 1	25	0	76,36
5.	XII IPA 2	26	0	78,88

Based on students’ daily examination results, the percentage of mastery is presented in picture 1 below:

Picture 1. Chart of mastery percentage



Based on Table 3 the daily examination result taken by the researcher is the daily examination result of students of X IPA on the virus materials in the odd semester of 2020/2021. The result shows that 36 students were declared ‘complete’ with an average score of 80,08 on the daily examination. The daily examination result of XI IPA 1 student on the systems materials shows 33 students were declared ‘complete’ with an average score of 74,88 and 2 students with an average

score of 68 was declared ‘incomplete’. At the XI IPA 2, there were 28 students were declared ‘complete’ with an average score of the daily examination of 73,47, and 6 students with an average score of 68 were declared ‘incomplete’. The result of students’ daily examination at XII IPA 1 on the growth and development materials shows 25 students were declared ‘complete’ with an average core of 76,36. Whereas, the daily examination score of XII IPA 2 students shows 26

students were declared 'complete' with an average score of 78,88 and have gained the KKM scoring standard.

Based on data of daily examination scores of students at X IPA, XI IPA 1, XI IPA 2, XII IPA 1, and XII IPA 2 in the odd semester of 2020/2021, it can be concluded that students' motivation and learning independence in Biology learning is high. However, there are still 8 students with a score of 68 who did not reach the KKM coring standard which was 2 students at XI IPA 1 and 8 students at XI IPA 2. The reason for this case was that the students did not join until the last class and some students did not do the homework given by the teacher. Others were because of parents' lack of affection and the last was due to the unstable internet connection so online learning did not run well. Based on the research of Mulyaningsih (2014:443), it is found that learning performance becomes the evidence of success, an optimal result achieved after the learning process, and optimal performance in mastering the materials studied. The learning result is the last evaluation of the process and the recurrent introduction. Further, it will be stored for a long period and won't be lost since it gets involved in shaping students' personalities who always wish to achieve better results.

CONCLUSION

Based on the discussion and result of the study, it can be concluded as follow:

1. Students learning motivation in biology learning in SMAN 1 Lalan during the Covid-19 pandemic shows that students' enthusiasm for learning is high. Despite several students who face difficulty in understanding the materials and getting inactive due to online learning, however, the students still attempt to follow the learning process.
2. Students learning independence in Biology learning in SMAN 1 Lalan during the Covid-19 pandemic shows that the students have high independence in learning. The students try to follow the online learning process despite the internet signal problem; some students do not have laptops or mobile phones.
3. Factors that affect students' learning independence and motivation in Biological online learning in SMAN 1 Lalan comprise aspiration to be achieved, desire to succeed, students' conditions, difficulty in accessing the internet, the role of the parents and teachers, as well as the condition of the circumstance.

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