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The Effect Of Discovery Learning Combined With Video Scribe Animation Media On Learning Motivation Viewed From Student Academic Ability

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Abstract. Learning motivation is an important element of learning to achieve learning outcomes. Learning model accompanied by innovative learning media as an effort to increase student motivation. This research aims to (1) know the effect of discovery learning combined with video scribe animation media on students learning motivation, (2) know the effect of academic abilities on students learning motivation, and (3) know the interactions between discovery learning, video scribe animation media, and academic abilities towards students learning motivation. This research was a quasi-experiment. The study population was all XI MIPA grade students of SMAN 8 Surakarta. The research subject was taken using simple random sampling. Data collection techniques use documentation, questionnaires, and observation. The data analysis using Two Way Anova test with SPSS 24. The results obtained are sig.(A) of 0,005; sig.(B) of 0,447; and sig.(AB) of 0,461. Sig.<0,05. The conclusion of the hypothesis test results shows that (1) $H0_{(\text{learning model})}$ is significantly rejected which means there is a significant effect of discovery learning combined with animation media video scribe to students' motivation, 2) $H0_{(\text{academic ability})}$ accepted which means there is no effect of low, medium, and high academic ability on student motivation, and 3) $H0_{(\text{learning model* academic ability})}$ is accepted which means there is no interaction between learning models and academic ability on students' motivation. The conclusion of this research showed that (1) discovery learning combined with video scribe animation media influences students learning motivation, (2) academic ability no influences students learning motivation, and (3) there is no interaction between discovery learning, video scribe animation media, and academic abilities on students learning motivation.

Keywords: *Discovery learning, animation media, learning motivation*

INTRODUCTION

Education is one of the determining factors for the progress of the nation and long-term investment in human resource development (Aswita, 2015). Sudarisman (2013), argues that the administration of education must be of high quality so that this process will produce good learners, competitive and professional. The quality of education can be realized by supporting learning quality. The learning process takes place by involving elements of teachers and students (Priyayi, Keliat, & Hastuti, 2018). The teacher in the learning process acts as a facilitator and motivator. Teachers as facilitators by providing services to make it easier for students to understand the subject matter whereas, the teacher as motivator must be able to encourage students to foster motivation so that they can be enthusiastic in participating in learning (Esi, Purwaningsih, & Okianna, 2016).

Motivation is an intensity of work in someone to do something to achieve the expected goals (Emda, 2017). Motivation is an important factor in the learning process because it can encourage students to take part in learning activities (Elferasari, 2017). Motivation learning affects the learning process and outcomes of students (Patandung,

2017; Saridewi, Suryadi, & Hikmah, 2017). Every student has their learning motivation because the motivation to learn comes from within and without oneself.

The results of observations at SMAN 8 Surakarta showed the learning process has not empowered students, resulting in students feel bored. Students consider biology to be a particular abstract subject. Learners' assumptions about the biology of cause a lack of attention when learning, tend to be silent when asked to express opinions, and lack confidence. Class conditions that are not conducive and learning models are less varied are the causes of the low-level motivation to learn students. Low motivation in learning is indicated by learners like indifferent, easily discouraged, attention is not focused on the lessons, like to disrupt the class atmosphere, and often leave the classroom (Kompri, 2016).

Students' learning motivation can be increased through the use of innovative learning models and media by following with the characteristics of the biology material. The learning model applied in the 2013 Curriculum in Permendikbud Number 103 the year 2014 and Permendibud Number 22 the year 2016 was a learning model that emphasizes activity and creativity, inspiring, fun, learner-centered, contextual, and meaningful for everyday life. Discovery learning is one of the learning models applied in the 2013 Curriculum. Discovery learning is a series of learning activities that involve the participants' abilities students in investigating the facts to formulate various findings from the results of his thoughts (Martaida, Bukit, & Ginting, 2017; Veermans, 2003). Students can store knowledge of their findings for longer in their memory (Patandung, 2017).

The implementation of the discovery learning model has 5 stages including orientation, hypothesis generation, hypothesis testing, conclusion, and regulation (Veermans, 2003). The use of discovery learning models provides opportunities for students to be directly involved in learning, thus it can generate learning motivation of students (Putri, Lesmono, & Aristya, 2017). Students' motivation to learn can also be improved by the addition of innovative learning media.

The addition of innovative learning media in the learning process makes it easier for teachers to teach the material. The use of innovative learning media in the learning orientation stage is very effective because can generate enthusiasm and motivation to learn students (Nurrohmah, Putra, & Farida, 2018; Wijaya & Wibawa, 2017). One of the innovative learning media is video scribe animation media. Video scribe animation media is an alternative to innovative learning media. It consists of video-based audiovisual in the form of sketches of images, text, music, and backgrounds which can be selected as desired (Yusup, Aini, & Pertiwi, 2016). Animations videos are designed to give the impression of entertainment to evoke the enthusiasm of students (Aksoy, 2012; Kumar, 2019; Nurrohmah et al., 2018). The animated visuals shown in the video are suitable for the biology topic particularly in understanding the process of a system (Sukiyasa & Sukoco, 2013). Animated media integrated learning increases motivation learners (Rosen, 2009).

The learning motivation of students can be increased by the Discovery Learning model that has been carried out by several researchers. The addition of innovative learning media in the form of video scribe animation can facilitate the delivery of material and generate learning motivation for participants students. The purpose of this study was to determine: 1) The effect of the Discovery Learning model with video scribe animation media on students learning motivation, 2) The effect of academic abilities on students learning motivation, and 3) The interaction of discovery learning, video scribe animation media, and academic abilities on students learning motivation.

METHOD

The research was conducted at SMAN 8 Surakarta in the even semester Academic the Year 2019/2020. This research is quasi-experiment research. The research design used a posttest-only control group design (Table 1). The population in this study were all students of class XI MIPA SMAN 8 Surakarta. The research sample was taken using simple random technique sampling.

TABLE 1. Research design

Class Group	Treatment	Posttest
Control	X_0	O_0
Experiment	X_1	O_1

Information:
X_0 = application of discovery learning model
X_1= application of the discovery learning model combined with video scribe animation media

O_0= posttest in the control class
O_1= posttest in the experiment class

Data collection techniques were conducted using documentation, questionnaires, and observation. Documentation is used to collect data in the final semester of first grades is students' initial academic abilities for testing normality and homogeneity in determining the research sample. The questionnaire used to measure students' learning motivation intrinsically and extrinsic which has been tested for validity and reliability. Aspects of intrinsic motivation consist of 7 indicators, namely: there is a desire to succeed, the encouragement and need in learning, there are hopes and dreams for the future, diligent in facing the task, resilient in face of adversity, show interest in a variety of problems, and happy to find and solve problems. While the extrinsic motivation aspect consists of 6 indicators, namely: there is an appreciation in learning, there are interesting activities in learning, there is a conducive learning environment, authority expectations (family and teacher), peer support, and quickly get bored of routine tasks. Learning observation sheets were used to measure student achievement. The prerequisite test for data analysis used the normality test and homogeneity test to obtain data that is normally distributed and homogeneous. Hypothesis testing uses the two-way Anova test with SPSS 24.

RESULT AND DISCUSSION

The data presented in the form of learning motivation of students on the system reproduction topic was obtained through the learning motivation questionnaire sheet. Result data calculations for the two classes were then analyzed based on the indicators to see the differences in student motivation between discovery learning models and discovery learning combined with video scribe animation media. The criteria for the level of learning motivation are presented in Table 2.

TABLE 2. The Criteria for The Level of Learning Motivation

Interval (%)	Criteria
85-100	Very high
69-84	High
53-68	Moderate
37-52	Low
20-36	Very low

(Hendrayana, Thaib, & Rosnenty, 2014)

Based on the results of the learning motivation data of students shows that discovery learning class combined with video scribe animation media were better than discovery learning class on the reproductive system material. The distribution of students' motivation results can be seen in Table 3.

TABLE 3. The Distribution of Students' Motivation

Class	Frequency Control Class	Frequency Experimental Class
53-58	0	1
59-64	7	1
65-70	8	7
71-76	11	10
77-82	8	10
83-88	1	4
89-94	0	1
95-100	0	1
Mean	71,37	76,09
Standard Deviation	6,353	8,497
Variance	40,358	72,198
Minimum	59	53
Maximum	83	96
Median	72	76
N	35	35

Table 3 shows that the average value of learning motivation in the experimental class (76,09) is higher than the average value of the control class (71,37). The combination of discovery learning with video scribe animation media is better to increase students learning motivation than discovery learning models. The summary of the average value of each indicator of learning motivation for both the control class and experimental class is presented in Table 4.

TABLE 4. The value of each indicator of learning motivation

Aspects of learning motivation	Indicator of learning motivation	The average value of learning motivation	
		The control class	The experimental class
Intrinsic	1. There is a desire to succeed (Uno, 2014)	68,39	71,43
	2. The encouragement and need in learning (Uno, 2014)	67,68	75,89
	3. There are hopes and dreams for the future (Uno, 2014)	81,25	86,61
	4. Diligent in facing the task (Sardiman, 2014)	72,32	78,04
	5. Resilient in face of adversity (Sardiman, 2014)	71,79	73,93
	6. Show interest in a variety of problems (Sardiman, 2014)	68,93	74,64
	7. Happy to find and solve problems (Sardiman, 2014)	68,93	75,54
Extrinsic	1. There is an appreciation in learning (Uno, 2014)	71,96	76,07
	2. There are interesting activities in learning (Uno, 2014)	74,11	79,64
	3. There is a conducive learning environment (Uno, 2014)	71,96	75,18
	4. Authority expectations (family and teacher) (Shia, 1998)	69,64	72,14
	5. Peer support (Shia, 1998)	62,32	66,43
	6. Quickly get bored of routine tasks (Sardiman, 2014)	78,39	83,93

Table 4. indicates that the average score of each motivational indicator of learning an experiment class is higher than the control class. The highest grades of indicator in both classes were of hopes and dreams for the future was 81.25 in the control class, while the experiment class was 86.61. The lowest grades of both classes were peering support indicators with a score of 62.32 in the control class, while the experiment class was 66.43. A summary of the grades of each motivational indicator of learning students with low, medium, and high academic ability is presented in Table 5.

TABLE 5. Data of Each Participant's Learning Motivation Indicators Reviewed from Academic Ability

Indikator	Low Academic Ability (LAA)	Medium Academic Ability (LAA)	High Academic Ability (LAA)
There is a desire to succeed (Uno, 2014)	70,9	67	74,93
The encouragement and need in learning (Uno, 2014)	70	71	76,22
There are hopes and dreams for the future (Uno, 2014)	82,5	86	82,4
Diligent in facing the task (Sardiman, 2014)	74,3	73	79,17
Resilient in face of adversity (Sardiman, 2014)	75,4	71	74,38
Show interest in a variety of problems (Sardiman, 2014)	70,5	71	73,3
Happy to find and solve problems (Sardiman, 2014)	72,8	73	72,36
There is an appreciation in learning (Uno, 2014)	73,6	75	73,82
There are interesting activities in learning (Uno, 2014)	75,8	79	74,97
There is a conducive learning environment (Uno, 2014)	75,6	72	74,79
Authority expectations (family and teacher) (Shia, 1998)	75,5	69	70
Peer support (Shia, 1998)	65	62	68,26
Quickly get bored of routine tasks (Sardiman, 2014)	81,8	78,6	85,66

Table 5 shows the difference in average scores of each motivational indicator of students in three categories: low, moderate, and high academic abilities. Students with the low and moderate academic ability get the highest average scores on indicators of hopes and dreams for the future. Students with the high academic ability get the

highest average scores on indicators quickly bored on routine tasks. The results of the hypothesis test were analyzed using the two-way ANOVA test with SPSS 24 is presented in Table 6.

TABLE 6. The results of the hypothesis test

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	574.376[a]	5	114.875	2.019	.088
Intercept	354113.951	1	354113.951	6223.672	.000
Learning Model (LM)	488.598	1	488.598	8.587	.005
Academic Ability (AA)	92.880	2	46.440	.816	.447
LM*AA	89.232	2	44.616	.784	.461
Error	3641.467	64	56.898		
Total	384729.000	70			
Corrected Total	4215.843	69			

Table 6 shows that (1) the significant value comes from the model learning of 0.005, (2) the significant value that comes from ability academic value of 0.447, and (3) the significant value derived from the learning model and academic ability of 0.461. The conclusion of the hypothesis test results shows that (1) $H0_{(\text{learning model})}$ is significantly rejected which means there is a significant effect of discovery learning combined with animation media video scribe to students' motivation, 2) $H0_{(\text{academic ability})}$ accepted which means there is no effect of low, medium, and high academic ability on student motivation, and 3) $H0_{(\text{learning model* academic ability})}$ is accepted which means there is no interaction between learning models and academic ability on students' motivation.

The Effect of Discovery Learning Combined with video scribe Animation Media on Learning Motivation

Based on the results of the two-way ANOVA test, it is known that discovery learning combined with video scribe animation media has a significant effect on learning motivation. Comparison of the average results of class learning motivation between control and experiment class are presented in Fig. 1.

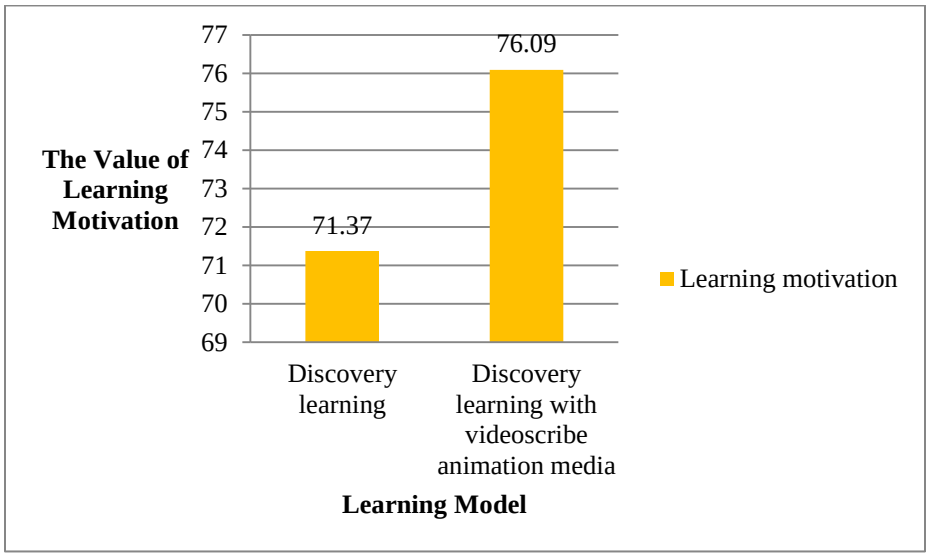

FIGURE 1.Histogram of Average Value of Learning Motivation Based on the Model Learning

Fig.1 shows that the learning motivation of students in the classroom using discovery learning combined with video scribe animation media is higher than discovery learning classes. The learning motivation in both classes included in the high category which indicates that there is a boost in themselves who are high for achievement (Hendrayana et al., 2014).

Discovery learning models combined with video scribe animation media make the learning process more fun and generally help the students to improve learning motivation. The fun learning is generated by giving video animation to impress and entertain the student resulted in the easiness to understand a material (Kumar, 2019; Nurrohmah et al., 2018). Discovery learning syntax involves students discover new concepts makes learning activities are not boring because students are more active and responsible for completing discussion topics in the group (Ramadhanti, Nuriman, & Khutobah, 2014). Each group strives to convey the best discussion results so that students have the spirit and motivation to learn.

Learning motivation consists of 2 aspects, namely intrinsic motivation and extrinsic motivation. The intrinsic motivational aspect consists of 7 indicators while the extrinsic motivational aspect consists of 6 indicators. The value of each motivational indicator of learning learners control classes and experiments presented in Figure 2.

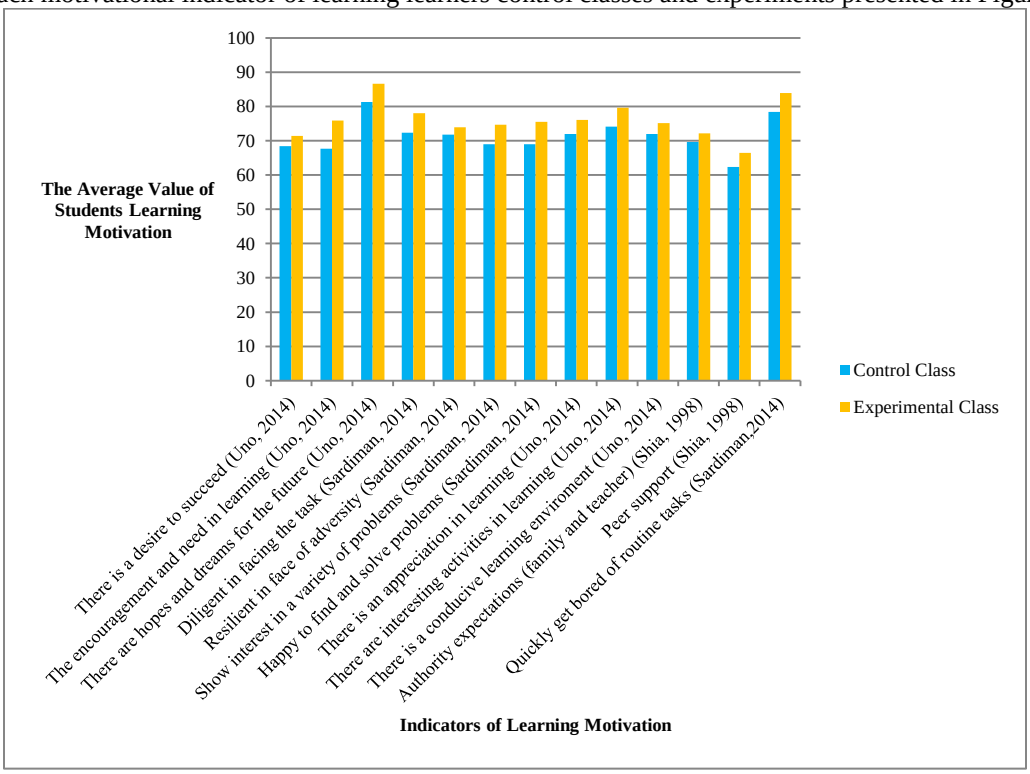

FIGURE 2. Histogram of Average Value of Each Learner's Motivational Indicators

Figure 2 shows the average value of each learning motivation indicator. Experiment classes scored higher on average in each motivational indicator of learning than control classes. The average grade of the highest learning motivation indicators in both classes was hopes and dreams for the future while the lowest grades indicator of both classes was lie in peer support indicators.

Hopes and dreams for the future of students become one of the considerations for future success. The student motivation in learning becomes higher when they have future goals, otherwise, if the students do not have ideals then will be indifferent to the education taken (Moslem, Komaro, & Yayat, 2019). Future ideals are required by students to encourage a willingness for students to strengthen learning.

Peer support affects adolescent development. Students who are accepted by their peers in the group and have a good social spirit are often good in their academic performance, otherwise, students who are rejected by their friends are at risk of having learning problems (Rohman & Karimah, 2018). The academic abilities of each learner are various, but they feel comfortable studying together so that they can discuss each other's opinions (Aimah & Ifadah, 2014). Students with high, medium, and low academic abilities can exchange their ideas that result in students with fewer abilities by approaching their friends who have higher academic abilities (Iqbal, Mahanal, Zubaidah, & Corebima, 2015).

The Effect of Academic Ability on Learning Motivation

The results of the two-way ANOVA test showed that academic ability wasn't has a significant effect on the learning motivation of students. The research is consistent with (Manuhutu, 2015), which states that students with intelligence levels above average do not have high motivation. The average value of learning motivation based on academic ability was shown in Fig. 3.

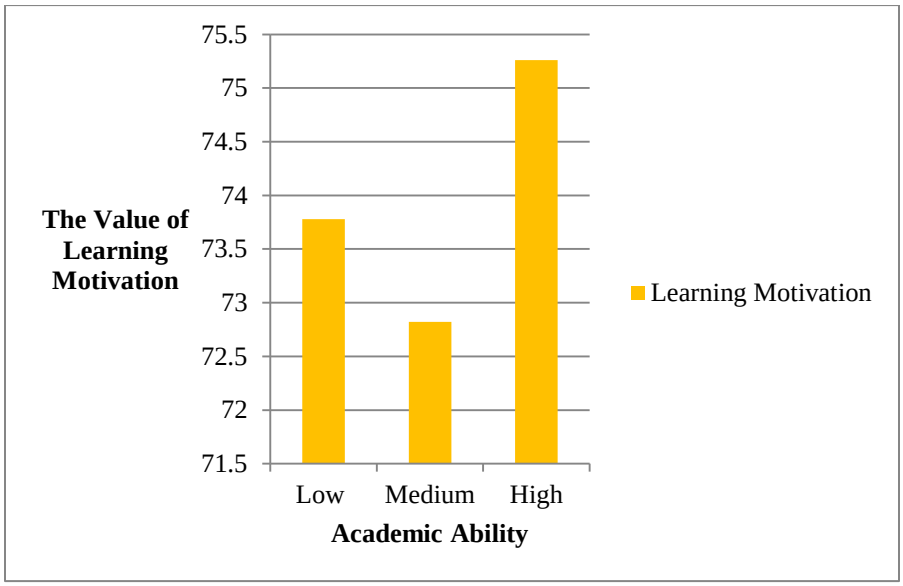

FIGURE 3. Histogram of Average Value of Learning Motivation Based on Ability Academic

Based on Fig. 3, the learning motivation of high academic students has mean scores higher than low and medium academic students. Fig. 3 shows that the mean value of the participants' learning motivation for students with low academic abilities is higher than students with medium academic ability. The difference in the value of learning motivation as each student has different characters in receiving, responding, and processing the information submitted by the teacher according to academic abilities initially (Hasrida & Salempa, 2018).

Rizkiana, Dasna, & Marfu'ah (2016), stated that students with high academic abilities have better motivation to learn than students with low academic ability. Academic ability at a high start allows students to be more active during learning through experiments or literature studies, thus generating motivation to learn owned (Hasrida & Salempa, 2018). Learners with higher academics abilities have better study habits than students with low and medium academic abilities. Study habits are one of the factors that influence learning motivation. Poor study habits will result in the low learning motivation of the students (Rohman & Karimah, 2018).

Academic ability is a consideration to increase learning motivation. Academic students are getting more motivated compared to low academic students. Dahlia & Roza (2017), explain that students with lack motivation were included as underachievers person. Students with medium academic ability having higher academic ability than students with low academic ability but the achievements obtained are below the average ability owned (Sulistiana & Muqodas, 2015). Underachiever students have low learning motivation which affects their learning achievement attainable so do not get excited to learn and have no target clear (Syam, 2019).

Students with high academic abilities but, have low learning motivation, will not have good academic achievement, conversely, students with low academic ability, but they have high motivation then he will achieve good academic achievements (Rohman & Karimah, 2018). Low learning motivation of students is indicated as less enthusiastic, less focused when receiving lessons, and reluctant to solve problems related to biology completely. For students' learning motivation is low, they only pay attention to the teacher's explanation at the beginning, easily feel bored following the lesson, and are less focused on the lesson. The level of learning motivation is low so that learning outcomes are not optimal (Sari, Sunarno, & Sarwanto, 2018). Learners who have high learning motivation will study harder and focus so they can improve learning outcomes (Ahmad, 2018; Saridewi et al., 2017).

Learning motivation consists of intrinsic and extrinsic motivational aspects. The intrinsic motivational aspect consists of 7 indicators and the extrinsic motivational aspect consists of 6 indicators. The value of each motivational indicator of learning students with low, moderate, and high academic ability is presented in Figure 4.

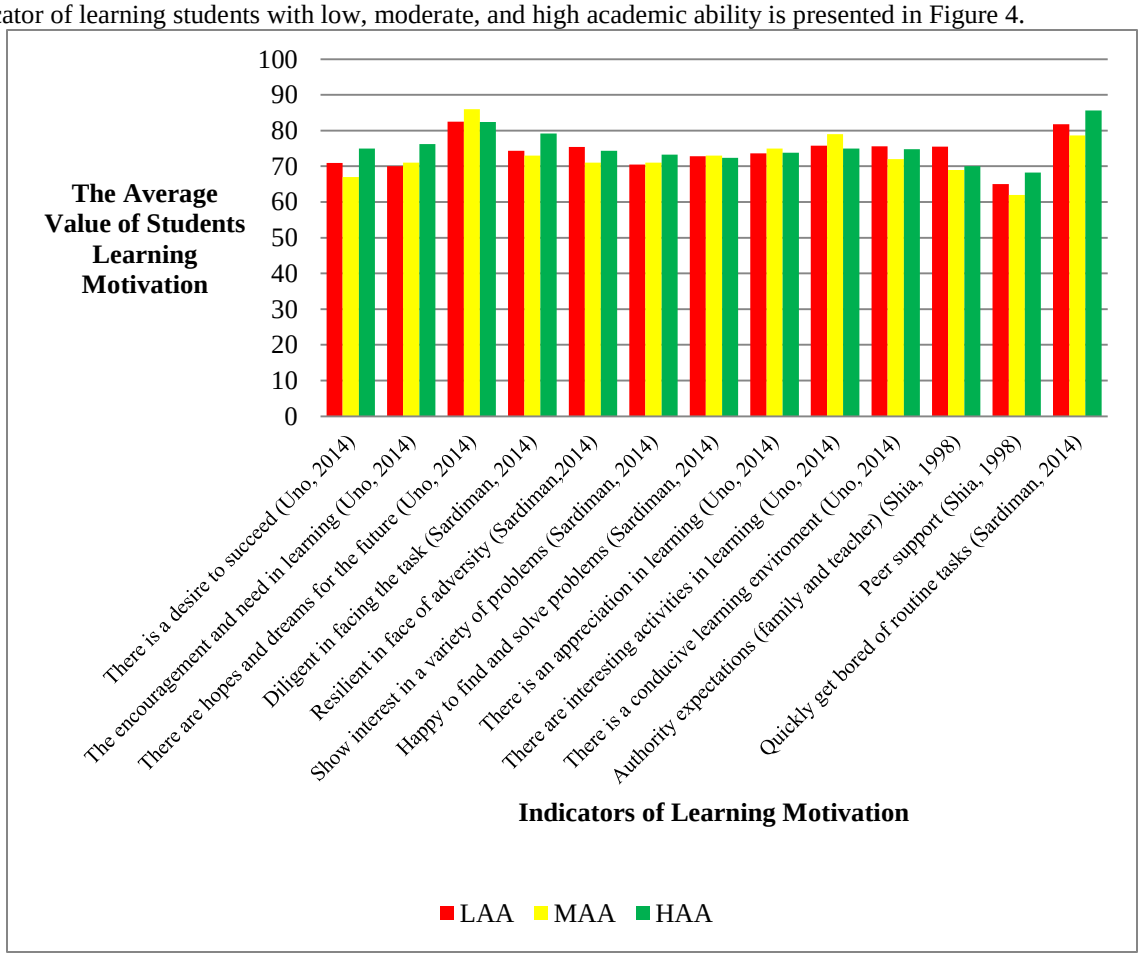

FIGURE 4. Average Value Histogram Of Each Participant's Learning Motivation Indicators Based on Academic Ability

Figure 4. shows the value of each motivational indicator of learning students with low, medium, and high academic ability. Indicator of desire to succeed, HAA students get higher scores than KAS and LAA students. LAA students get higher results than MAA students. Students who have a high desire to succeed are in line with the ability to achieve it so that the learning motivation is high. MAA students get the lowest scores because they consider the success achieved just a coincidence not because they have good abilities (Dhatu & Ediati, 2015). Students who only have the desire to succeed without the ability to reach it then students become desperate (Moslem et al., 2019).

Indicator of encouragement and need in learning, HAA students get higher results from LAA and MAA students. LAA students get the lowest results. HAA students have higher learning motivation because their high initial ability makes it easier for them to engage actively in learning to construct new knowledge. In contrast, MAA and LAA students tend to have motivation not as high as kat students (Danial, Gani, & Husnaeni, 2017). The higher the learning motivation, the more effective the learning habits of students, the more effective the learning motivation decreases then the learning habits will decrease (Sartika, Dahlan, & Waspada, 2018).

Indicator of hopes and dreams for the future, HAA students get the highest results from MAA and LAA students. HAA students have a positive academic self-concept so that they are challenged to maintain and improve their achievements to achieve their goals (Dhatu & Ediati, 2015). On the other hand, LAA students have a negative academic self-concept so that the motivation is low. Students are highly motivated when they have ideals, otherwise, students who do not have ideals will be indifferent to the education taken (Moslem et al., 2019).

Indicators are diligent in facing the task, HAA students get the highest results and MAA students get the lowest results. HAA students have a higher responsibility to complete the given task. MAA students get the lowest results because they have responsibilities at moderate levels such as calm and not very optimistic when completing tasks (Sunaryo, 2017). LAA students get higher results than MAA students because they are optimistic about completing the given task. Students who are diligent in the task will look for various sources of reference to complete the given task. Students who have high confidence are more active and enterprising when completing tasks (Widanarti & Indati, 2002).

Indicators of resilience in the face of adversity, LAA students get the highest results and MAA students get the lowest results. LAA students have a tenacious level of difficulty by expressing themselves to express opinions if they have difficulty learning the material. MAA students are less resilient when facing difficulties, learning readiness is not as high as kat, and LAA students are so constrained during learning (Solina, Erlamsyah, & Syahniar, 2013).

Indicators show interest in various problems, HAA students get the highest results, while LAA students get the lowest results. HAA students showed interest in the high problems that characterized them as innovative in finding solutions to solve them. LAA students showed interest in low problems that characterized them as less innovative in finding solutions so that problems were solved as they were (Lailiana & Handayani, 2017). The higher the interest of students will get good learning achievement (Aini, Afifah, & Purnama, 2016).

Indicators are happy to find and solve problems, MAA students get the highest results, while HAA students get the lowest results. Differences in the academic ability of students influence understanding problems (Medyasari, Muhtarom, & Sugiyanti, 2017). Academic ability is an early capital in solving problems (Bahri, Corebima, Amen, & Zubaidah, 2016). HAA students get the highest results because they are focused and serious when solving problems. MAA students get the lowest results because when solving problems less seriously provide solutions to solve problems.

Indicators of appreciation in learning, MAA students get the highest results, while LAA students get the lowest results. MAA students have a high level of motivation when awarded in learning in the form of praise by the achievements achieved (Suprihatin, 2015). Teachers give learning awards as a tool to increase learning motivation so that each learner can compete even though their initial abilities are different.

Indicators of interesting activities in learning, MAA students get the highest results, while HAA students get the lowest results. Interesting activities in learning using discovery when answering problems increase the creativity and motivation of students (Lestari, 2012). One of the innovative learning media used in learning is video scribe animation media. The use of animation learning media makes students feel new experiences and strengthens the memory of the materials discussed (Kausar, Salasi, & Hidayat, 2020).

Indicators of a conducive learning environment, LAA students get the highest results, while MAA students get the lowest results. Different academic abilities lead to students' ability to understand different materials. Learning success is not only influenced by academic factors but also influenced by the environment. A comfortable learning environment makes it easy for students to learn. Interaction between students, materials relevant to the world of students, and varied tasks affect learning motivation (Sem, Iskandar, & Rahayu, 2019).

Indicators of authority expectations (family and teacher), LAA students get the highest results, while MAA students get the lowest results. MAA students have low levels of family and teacher expectations. LAA students have the highest family and teacher expectations to achieve high learning achievement. High parental care and attention to learning achievement improve children's learning motivation (Endriani, 2016; Rahayu, 2011).

Indicators of peer support, HAA students get the highest results, while MAA students get the lowest results. HAA students contribute to providing support among friends so that they are more comfortable learning by exchanging ideas that cause LAA students to experience increased learning motivation (Susilawati, Jamaluddin, & Bachtiar, 2017).

Indicators quickly get bored with routine tasks, HAA students get the highest results, while MAA students get the lowest results. Students are lazy and tired of doing chores if given regularly (Aini et al., 2016). One way to cope with students who are bored with routine tasks is to give various assignments and provide feedback on the tasks that have been done (Rohman & Karimah, 2018). HAA students who are unsure of their ability to perform tasks cause students to be lazy and bored to complete the task. Success in learning can be achieved by being optimistic, confident, and confident to complete the task well (Chasiyah, H.A, & Legowo, 2009).

Interaction of Learning Models and Academic Ability on Learning Motivation

The two-way ANOVA test results show that there is no interaction between the models learning with academic abilities on the learning motivation. The average value of learning motivation based on the learning model is reviewed of academic ability can be seen in Fig. 5.

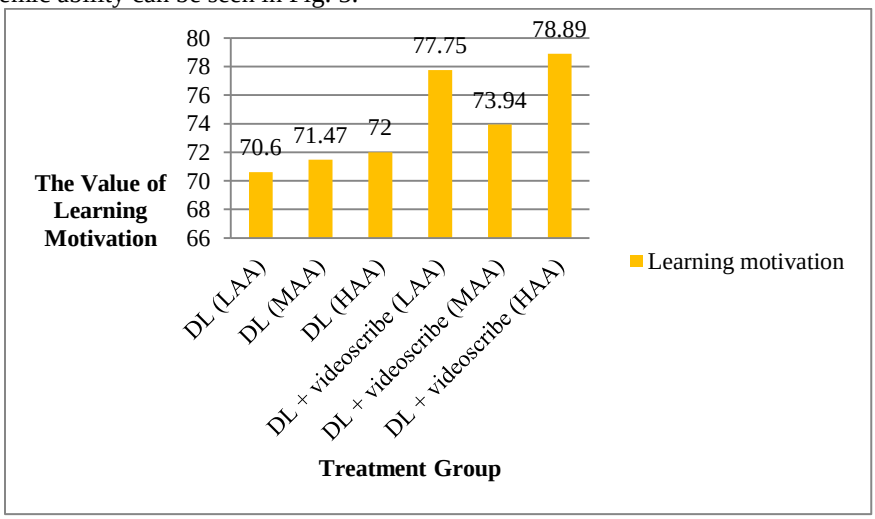

FIGURE 5.Histogram of Average Value of Learning Motivation Based on the Model Learning in terms of Academic Ability

The results showed that there was no interaction between the models learning and academic abilities on students' motivation. The research is consistent with Selan's (2017) that ability academic and learning models do not interact with learning motivation. The interaction between learning models and academic ability on motivation learners in Fig. 6.

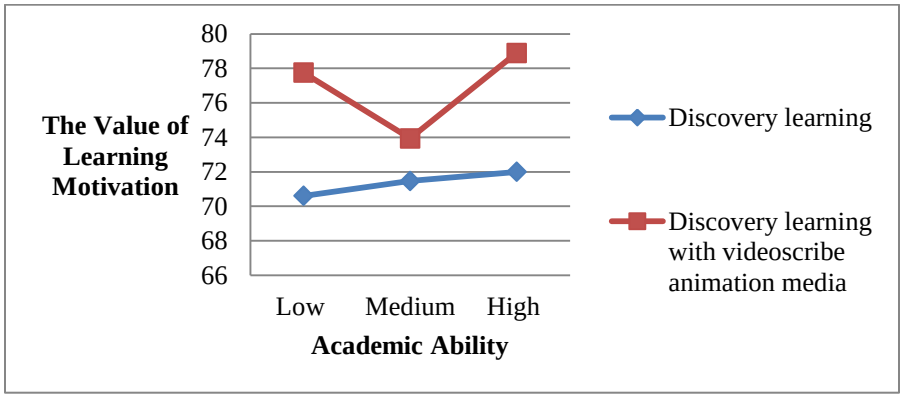

FIGURE 6. Graph of Interaction between Learning Model and Ability Academic on Students' Learning Motivation

Fig. 6 shows that the two lines on the graph do not intersect each other which means there is no interaction between learning models and abilities academic towards students' motivation. The learning model and academic ability did not provide a significant difference in motivation to learn. The level of learning motivation among students can influence the learning motivation of other students (Sari et al., 2018).

The average value of the learning motivation of students with high academic abilities in both classes is higher than students with abilities low academic. Rizkiana, Dasna, & Marfu'ah (2016), stated that students with high academic abilities tend to have more learning motivation higher than students with low academics. However, students with medium academic ability is in discovery learning class combined with animation media video scribe has a lower mean value of learning motivation than students of high and low academic ability. That is, application discovery learning combined with video scribe animation media does not only improve the learning motivation of students with low and high academic abilities but does not help increase students' motivation to learnability

moderate academic. Motivation is used in the learning process not only to complement teaching procedures but become a determining factor for learning effective (Marjito & Nurhalipah, 2018). Effective learning is also supported by the use of methods, media, and fun learning models.

Discovery learning model combined with video scribe animation media has the potential to increase the learning motivation of low and high academic learners, however not with moderate academic students. The use of discovery learning combined with video scribe animation media is capable strengthen students' memory of the material presented (Kausar et al., 2020). Application of discovery learning combined with video scribe animation media who do not pay attention to the ability of students to receive learning and study habits cause students to be more academic ability have low learning motivation compared to ability students low and high academic.

CONCLUSION

The conclusion of this research showed that (1) discovery learning combined with video scribe animation media influences students learning motivation, (2) academic ability no influences students learning motivation, and (3) there is no interaction between discovery learning, video scribe animation media, and academic abilities on students learning motivation.

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