

PLAY THERAPY PROGRAM IMPLEMENTATION IN PUPILS' GENERAL AND SCIENCE VOCABULARY ENRICHMENT IN ELEMENTARY SCHOOLS OF SIMALUNGUN REGENCY OF NORTH SUMATERA INDONESIA

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ABSTRACT

This reserach is focused on the enrichment of pupils' general and science English vocabulary with play therapy program and cooperative learning implementation. Theoritically, play therapy program definetely suits to the pupils' need as pupils are easier to acquire and understand English vocabulary through studying and playing. There are some visual aids used in play therapy program, such as; flash cards, flip chart, ABC alphabet puzzle and galery walk. Absolutely, the implementaion of play therapy program and cooperative learning are expected to enrich pupils' general and science English vocabulary in this sophisticated technology ages. This research was conducted in state elementary school SD Negeri 091602 Dolok Merangir and Private elementary school Maligas Bayu located in Simalungun regency where the pupils do not have possibility to study English in their school. Grade VI pupils were chosen as sample of the research through startified random and cluster sampling. Qualitative research method was used to achieve the objectives of the research. In addition, observation, interview, and questionnaire were used to collect the data. After analyzing the data using SPSS IBM 22 with factor analysis, and Likert scale, the finding showed that, The interest of Maligas Bayu pupils was 98,33% which was higher than Dolok Merangir pupils' interest was 90,67%. Then, self confidence of Maligas Bayu pupils was 98 % and Dolok Merangir pupils' self-confidence was 92,33% , In short, play therapy program and cooperative learning program significantly do not only enrich pupils' general and science English vocabulary achievement but also increase the pupils' interest, self-confidence and creativity in accomplishing the whole task given through gallery walk.

Keywords: Science vocabulary, general vocabulary, flash cards, flip chart

INTRODUCTION

Background of Study

The recent growth of sophisticated technology is the evidence of global change followed by knowledge expansion simultaneously. It means that knowledge expansion does not only lead to the existence of high technology devices, such as; computer, smartphone, and etc, but it also leads to the use of language. For instance, since English is officially recognized as

International language, it is available in most sophisticated devices in language setting. Then, some bilingual natural science books in Indonesia are also written both in Indonesia and in English. These phenomena show that the development of natural science always comes along with both the growth of technology and the existence of English in Indonesia.

Yet, most Indonesian pupils who live in remote area are actually hard to understand bilingual text books in which there are many difficult science vocabulary found. The students usually finds out the difficulties while they are reading English version of the text book since many English words have same spelling yet different pronunciation. Thus, it is believed to introduce science vocabulary to the students started from primary school.

Piaget’s theory stated that pupils, 6-12 years old children, theoretically experience a great cognitive aspect development in which the students will memorize each word they hear easily. In addition, pupils will try to learn both English and science at the same time so the students are expected to have both attitude and interest of studying science in English. Specifically, the background of the study is visually shown in Figure 1.

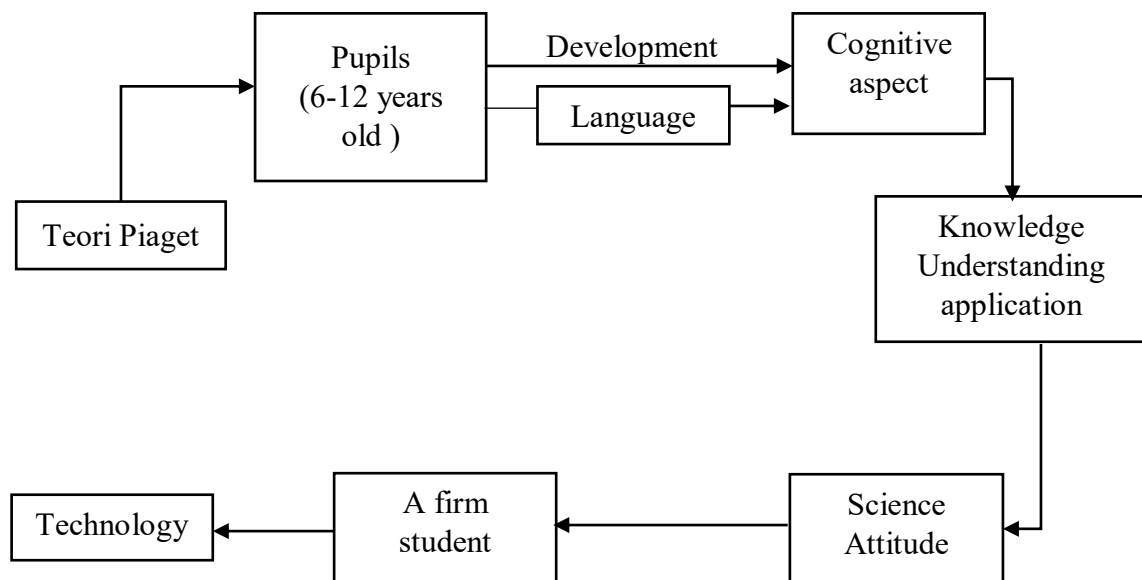


Figure 1. The relationship between Piaget’s theory and Pupils’ ability and attitude

The picture above detailly shows that pupils will greatly experience cognitive aspect development which includes language skill development. Through the language development, the pupils are not only expected to have both natural science knowledge and English language skill, but they are also expected to have positive attitude againts both natural science understanding and English language skill, moreover they are able to apply it in their daily life, for instance; using the technology.

This research was conducted in two different sub-regencies of Simalungun regency of North Sumatera Indonesia. Then, two different elementary schools were selected since most pupils are not interested in studying natural science and English. They prefer to study religion and other subjects. The pupils think that English is not a necessary to learn in the schools. In addition, the play therapy would be used as teaching tehnique since pupils are still more interested in studying through games.

In brief, there are four objectives of the research, namely;

- a. To investigate the pupils' psychology in order to decide the most proper teaching learning program.
- b. To apply science and general English vocabulary in order to increase pupils' critical thinking in mastering the materials given.
- c. To increase pupils' awareness both in studying science and in enriching the pupils' science and general vocabulary achievement.
- d. To build up pupils' scientific attitude effectively.

THEORITICAL FRAMEWORK

According to Schaefer (2002:23) 4-12 years old pupils definitely need play therapy technique to increase sensory, art and confidence, therefore pupils are still have high desire to play in the school. Play therapy is conducted in five days, and each day has five hours in applying all kinds of activity, then teachers are demanded to create interesting and challenging activity. Specifically, in the first step the teachers are asked to prioritize the program which is related to mental activity in order to explore pupils' confidence. Thus, both special need and normal students absolutely require play therapy in teaching learning process.

Moreover, play therapy is also known as diagnostic tools and teaching aids to investigate pupils' ability. Hartup (in Hasibuan, 2011:46) stated that playing may be able to reduce children's doubtness, to control anxiety, and to help pupils catch up the responses. Then, it is believed that pupils will enjoy the play therapy program applied to enrich pupils' science and general vocabulary achievement.

In this research, play therapy program is chosen to increase pupils' vocabulary enrichment which is combined with particular model and media learning as stated as follows;

- a. Cooperative play and flash card. The combination of cooperative play and flash card are expected to create pupils' vocabulary building and shape recognizing effectively. Besides, flash card are able to activate right brain as well so the pupils have a great opportunity to train concentration ability, and to enrich the vocabulary.
- b. Cooperative play and ABC's alphabet puzzle. This combination is expected to help pupils to memorize each word they hear and see, to communicate with each other, and to concentrate effectively as the teachers have the pupils to arrange the vocabulary needed with ABC's alphabet puzzle together with their group members. Shortly, the pupils do not only have chance to memorize science and general vocabulary, but they also have chance to interact with their classmates.

In addition, play therapy program absolutely creates the more interesting teaching and learning atmosphere so the pupils are expected to memorize vocabulary more easily, to increase self-confidence and to build up academic attitude. Then, Homeyer (2008:212) also stated that play therapy program is able to motivate and explore all learning activities so the goals can be achieved effectively. It means that play therapy program does not only allow pupils to be motivated, but it also allows pupils to evaluate and score their classmates in which it results more active teaching learning process in the classroom. In order to evaluate the interaction among pupils, this research used gallery walk. Gallery walk is kind of activity frame using flipchart which is hang on the wall. The teachers have each group to put science vocabulary on the flipchart, every groups are asked to assess the other groups flipchart to see whether the science vocabulary is correct or not. As long as the activity is conducting, there are six cooperative learning activities applied, namely:

- a. Training the basic skill through introducing both science and general vocabulary.

- b. Playing with flash cards, ABC's alphabet puzzle in correspond to the questions given.
- c. Put all science vocabulary found in the flipcharts provided in the gallery walk. In this activity, the pupils are free to organize their own flipcharts as interesting as they can.
- d. Presenting the science vocabulary found.
- e. Allowing the pupils to use the general and English vocabulary both in science learning and in daily life.
- f. Conducting soap making practice in order to build up scientific attitude.

To obtain all these activities, the team prepare bilingual science video as the most proper teaching media. This video contains many science vocabulary needed from kinds of science sub-topic of that video, such as; hearing, nutrition, seeing, and etc.

Thus, the application of play therapy is highly expected to optimize memory, ability, concentration, communication, application of science and general English both in written and oral interaction, and also building up scientific attitude. Surely, all these kinds of expectations will help to develop many aspects in teaching learning process, such as; sensory development, intelligence development, self-awareness (interest and confidence) , and teurapetik values (reducing tension and anxiety). Last, the problems can be solved and both pupils and researchers enjoy all activities planned.

RESEARCH METHOD

This research used qualitative research method since the researchers are the key of this research who decided the variables, samples, social situations, place aspects, actors, and activities as all these terms interacted each other. This research was conducted from September 2015 until September 2016 which is started from sampling process until final report.

This research was taken place in two elementary school of two different sub regencies of Simalungun regency, they are; state elementary school of SD Negeri 091602 of Dolok Merangit sub regency, and private elementary school of Madrasah Ibtidaiyah of Maligas Bayu. Then, all pupils were the population of the research. While, cluster and stratified random sampling were used to choose the sample of the research. According to Sugiono (2010:83) cluster sampling requires two stages. In stage 1, the sample was chosen by stratified random sampling which considering the similarity of place, environment, and pupils. In stage II, grade VI pupils were chosen as sample of the research through cluster sampling. There were 15 pupils for each school who were more or less 12 years old.

In addition, observation, questionnaire and interview were chosen as the instrument of the research, and technique of data collection was undertaken through a whole complete observation in which the researchers directly observed and involved in each pupils' activity in the classroom, gave the comments and suggestions so scientific attitude could be built up as soon as the activity was being held. While, scale Likert was used to collect the data as well by providing four scales of options, namely; SS (strongly agree), S (agree), TS (strongly disagree), and STS (disagree). This kind of scale was chosen to know pupils' interest and confidence using SPSS IBM 22 with factor analysis. While, interview was done to examine pupils' excitement of following all kinds of activity. Then, observation sheets were examined and calculated in correspond to the descriptors designed.

FINDING AND DISCUSSION

After conducting and analyzing play therapy program used by pupils, the findings of the research were elaborated as follows;

a. Pupils’ interest and confidence

Pupils’ interest and confidence are highly needed to appear the excitement in following teaching and learning process in the classroom. Based on the data analysis, pupils were extremely excited to follow each step of activity started from self-introduction, ice breaking, and vocabulary puzzle. The observation showed that pupils were happy doing all activities, and they were also able to accomplish the tasks given properly. Besides, all pupils involved and participated in their own groups so the classroom environment would be more exciting than before. It could be seen from the way pupils interact each other while the were arranging the alphabet to be science vocabulary on the flipchart, moreover, they were able to make their own flipchart become more creative and interesting based on their own imagination. This findings visually shows in table 1.

Table 1. The Result of Questionnaire

Items	Dolak Merangir (DM)	Maligas Bayu (MB)
Trust	98.33	100.00
Giving opinion	90.00	98.33
Higher Scoring	93.33	98.33
Discussion	81.67	96.67
Responsibility	90.00	98.33
Optimism	88.33	96.67
Excitement	96.67	100.00
Systematic	88.33	96.67
Interest	96.67	100.00
Useful tasks	91.67	96.67

From table above, the finding detailly is showed in Figure 2:

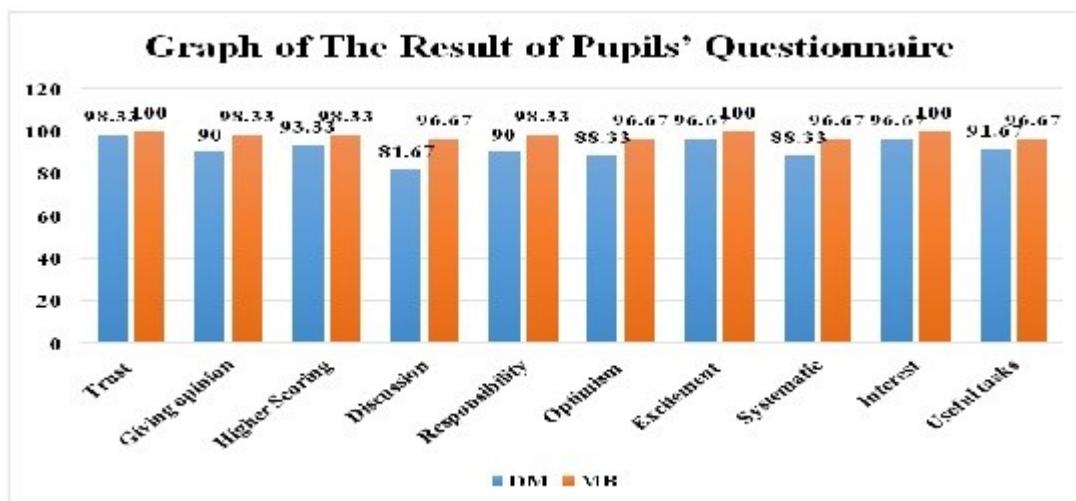


Figure 2. Graph of the result of pupils’ questionnaire

The above graph showed that pupils of Maligas Bayu regecny were better than pupils of Dolok Merangir. It can be seen from their readiness and maturity in doing all activites. Besides, the ability of Maligas Bayu pupils in creating confidence, excitement and interest againts teaching learning process was 100%, while, the ability of Dolok Merangir pupils was 98.33%. In other words, all pupils who were from two different sub regencies had the same interest and self-confidence which are very good in undertaking each steps and rules designed. It is also detailly shwon in the following graph 2.

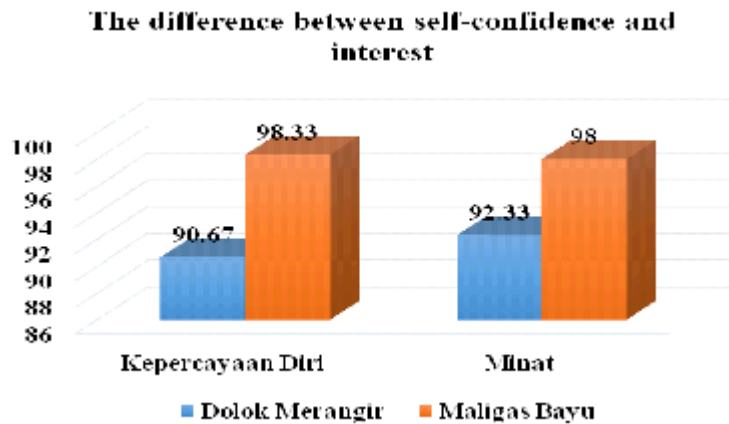


Figure 3. The difference between self-confidence and interest

From the graph above, it showed that Maligas Bayu Pupils have higher self-confidence and interest than Dolok Merangir pupils. It could be seen from the percentage found that Maligas Bayu pupils’ self-confidene was 98.33%, and their interest was 98%. While Dolok Merangir pupils’ self-confidene was 90.67%, and their interest was 92.33%. No matter what the percentage both of them have showed a very positive changes in finding science and general vocabulary, accomplishing tasks, and assesing the others’ tasks properly. Shortly, self-confidence and interest can affect many aspects, such as; to increase pupils’ achievement, to create fun and enjoyable learning, to solve problem, to create more conducive learning environment in which these result pupils’ long term memory.

b. Pupils’ scientific attitude

All pupils are expected to have scientific attitude which is built up while they are following each activity given in the classroom so it would be create more enjoyable teaching and learning process. Based on the data analysis, the pupils have showed good attitudes as long as they were involving in the play therapy program. The pupils were honest, fair, serious, objective and open in doing all activities. The percentage of pupils’ scientific attitude is visually shown in table 2.

Table 2. Pupils’ scientific attitude

Descriptors	Dolok Merangir	Maligas Bayu
Curious	82.22	91.11
Critical	80.00	68.89
Open	68.89	77.78
Objective	66.67	71.11
Respectful	64.44	84.44
Sceptic	71.11	77.78
Creative	93.33	80.00

Detailly, it is shown in Figure 4.

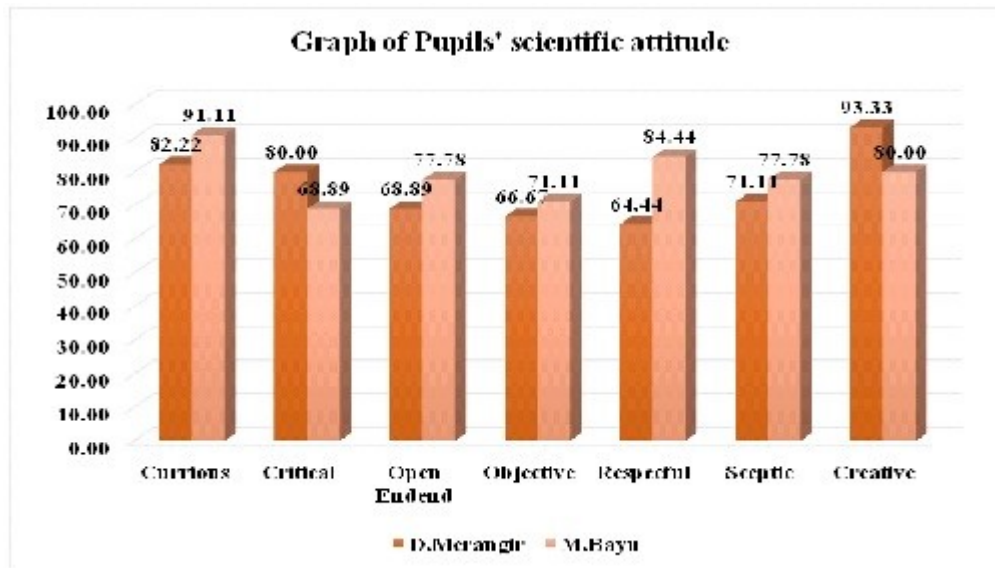


Figure 4. Graph of Pupils' scientific attitude

From the table and graph above, there are seven scientific attitude, namely; curious, critical, open, objective, respectful, sceptic, and creative. Dolok merangir pupils' creativity was being higher with 93.3% than Maligas Bayu pupils' creativity with 80.00%. In addition, Maligas Bayu pupils' curiosity was higher with 91.1% than Dolok merangir pupils' with 82.22%. The data showed that both Dolok merangir pupils and Maligas Bayu pupils have a good scientific attitude in accomplishing the tasks given. Yet, some pupils were still doubtful in doing assessment process towards gallery walk of other groups. It could be seen from Dolok Merangir pupils' respect was 64.4% and their sceptic was only 71.11%. In other words, Dolok Merangir pupils were not really serious in doing assessment. In addition, scientific attitude absolutely gives a great impact to both successful teaching and learning process and sophisticated technology awareness since all pupils have responsibility to behave properly in finishing the tasks and facing the globalization ages.

c. The application of Play Therapy

Based on the previous analysis above, it is clearly showed that pupils' interest, self-confidence and scientific attitude give a great effect towards pupils' learning achievement as all these aspects involves cognitive and **psychomotor** domains. So, the pupils have a great opportunity to find out and solve the problems.

After analyzing the interview of pupils, it is found that both Dolok Merangir and Maligas Bayu pupils are extremely interested in play therapy program. Some students said that they loved studying English due to the play therapy program through some media used, they are; bilingual video, flashcards, flip chart and ABC alphabet puzzle. Due to the play therapy program and teaching media provided, pupils were fun to recognize both science and general vocabulary. Then, the instructors also help the pupils finding and clarifying the vocabulary from the video watched, so the pupils easily to accomplish their own gallery walk cooperatively and conductively. To analyze the data of the correlation between play therapy program and media, it is clearly shown using factor analysis in KMO and Bartlett's table

Table 3. KMO and Bartlett's test

<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</i>		.600
<i>Bartlett's Test of Sphericity</i>	<i>Approx. Chi-Square</i>	.008
	<i>Df</i>	1
	<i>Sig.</i>	.931

Data analysis above showed that KMO and Bartlett of multivariable correlation was higher than 0,5 (>0,5) and reseach significance was 0,05. Then, KMO was 0,500 which corresponds to the category standard that 0.600 or higher than 0,5 was being in moderate category. While, the significance of Bartlett’s test of Sphericity was 0,931%. It is showed that both variables and samples used are possibly allowed to have further analysis. In addition, the correlation of multi independent variables could be showed in MSA (Measure of Sampling Adequacy) which started from 0 to 1 with some requirements below;

- MSA = 1, variables can be predicted without considering other’s variable error
- MSA > 0,5, variables can be predicted and analyzed
- MSA < 0,5, variables can not be predicted and analyzed

Detailly, the following table showed data analysis using SPSS

Table 4. Anti-image Matrices

		<i>Self-confidence and interest</i>	<i>Scientific attitude</i>
Anti-image	Self-confidence and interest	1.000	-.017
Covariance	Scientific attitude	-.017	1.000
Anti-image	Self-confidence and interest	.500^a	-.017
Correlation	Scientific attitude	-.017	.500^a

a. Measures of Sampling Adequacy(MSA)

From the data above, since MSA was marked with a it shows the following results;

- Self-confidence : 0,500 > 0,5
- Interest : 0,500 > 0,5

Moreover, MSA result above shows tha all independent variables may have further analysis because they are possible to be predicted. Then, it is visually shown in following table;

Table 5. Communalities

	<i>Initial</i>	<i>Extraction</i>
Self-confidence and interest	1.000	.508
Scientific attitude	1.000	.508

Extraction Method: Principal Component Analysis.

The table above shows that self-confidence and interest were 0,508 or 50,8 %. In other words, the data obtained were more than 50% which means that all the factors could be decided. Moreover, confirmatory factor analysis was used to find out the factors which are possibly established.

Table 6. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.017	50.830	50.830	1.017	50.830	50.830
2	.983	49.170	100.000			

Extraction Method: Principal Component Analysis.

Then, the table showed that component was about 1 to 4 which means all independent variables accepted through considering *Initial Eigenvalues* with SPSS of value 1. Thus, variance which is showed by factor 1 was $1.017/2 \times 100\% = 50.830$. Shortly, due to the *Initial Eigenvalues* was 1, the total data got was (> 1) which is *component 1*.

Table 7. Component Matrix^a

	Component
	1
<i>Self-confidence and interest</i>	.713
<i>Scientific attitude</i>	.713

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The table above showed that all data were more than 0,5 which concluded that there was correlation between variables and factors established. Thus, two factors, self-confidence and interest, significantly affect play therapy program implication with the data obtained was 0.713.

CONCLUSION

Based on analysis, some conclusions are stated as the following:

- a. Pupils basically have the different character and psychology so they surely need the proper teaching program which is the correlation between studying and playing at the same time to help them achieve teaching and learning goal expected.
- b. Kinds of media used such as; bilingual video, flash card, flip chart and ABC alphabet puzzle give a great impact to the play therapy program since pupils are easier to understand and to memorize both science and general vocabulary. Besides, pupils are able to think more critically in mastering the materials given which is showed through two factors, namely; interest and self-confidence. These two factors also gives a great effect toward play therapy program with the percanetage was 0,713.
- c. The interest of Maligas Bayu pupils was 98,33% which was higher than Dolok Merangir pupils' interest was 90,67%. Then, self confidence of Maligas Bayu pupils was 98 % and Dolok Merangir pupils' self-confidence was 92,33% . it showed that self confidence of

Maligas Bayu pupils was also higher than Dolok Merangir pupils. Overall, both of them are as good as expected.

- d. Both Maligas Bayu and Dolok Merangir pupils have showed a good scientific attitude while they were involving in the play therapy program. The data showed that Dolok Merangir pupils' creativity was 93,33% which was being highest scientific attitude, while the highest self-awareness belong to Maligas Bayu pupils which was 91,1%. In other words, scientific attitude may affect students' learning achievement since pupils do not only need cognitive aspect to have successful teaching learning process but they also need creativity and self-awareness. While, most students seems to be doubtful in doing assessment of gallery walk, the data showed that Dolok Merangir pupils' assessment was 64,4%, and Maligas Bayu pupils' was 71,11%.

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