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# Analysis of Learning Enthusiasm Evaluation Through Group Investigation in Learning Quality

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**A B S T R A C T**

The Group Investigation model is a cooperative model to develop an enthusiasm for learning. Problems in the field from interviews with students of SMP 1 Indramayu were found to be as follows: lack of group collaboration, less responsiveness, lack of attention, sleepiness so that it can be concluded that there is a lack of enthusiasm for students in learning. The purpose of this research is to analyze the indicators of the most dominant learning enthusiasm if learning is carried out through Group Investigation to solve problems in the places observed. The research method is descriptive qualitative analysis. A questionnaire instrument measured the four indicators. The subject of the research is class VIII Middle School 1 Indramayu. Data collection techniques are data collection, data presentation, conclusions. The results show that from the four indicators of enthusiasm, the indicator that got the highest percentage (83%) was students' enthusiasm in noting important things as teaching materials at home. The conclusion of the enthusiasm indicator in the form of student learning enthusiasm in recording important things is the most dominant when learning is implemented through Group Investigation. Thus, it is necessary to improve learning through group discussions in the future.

## Introduction

Based on Article 31, paragraph 3 that the Indonesian National Education System aims to make the younger generation have the knowledge, skills, attitudes that follow the objectives of education in Indonesia, including the spirit to find identity so that it does not become a waste of society/the nation's burden. This kind of construction explains that the Indonesian national education system prioritizes the orientation of faith, purity, and noble character before the potential and competencies of other human resources are developed. This concept is the same as that taught by Luqman to his son, where the first thing taught is

monotheism, then *adab*, especially *adab* to parents (Surah Luqman: 13-14). This concept is also the same as the priority concept in Islam, for example, in *fiqhu al-aulawiyat fi al-dakwah* (priority in da'wah). The biggest priority is faith or monotheism, as has become the primary mission of the messengers, "And indeed We have sent messengers to every people (to call): Worship Allah (only)." (Surat an-Nahl: 36). That's why when the Prophet Muhammad sent an ambassador of da'wah to Yemen, Muadz bin Jabal. The Prophet advised him that the first thing that was conveyed to them was so that they could unite in Allah. After they understood it, they were given the obligation to pray. After they could perform the prayer, then zakat was preached (Hadith). Al-Bukhari and Muslim narrated it). Soft skills are highly expected in the nation's generation of graduates because they are an important capital in finding work. However, there are still gaps despite the government's expectations regarding education. It is proven that there are still many unemployed in Indonesia. Therefore, to achieve these goals, it is necessary to have methods, strategies, and learning approaches that can foster soft skills, especially the spirit of finding a nation's identity.

One method that can be used is the cooperative method with student-centered orientation. The philosophy underlying cooperative learning (*gotong royong*) in education is "homo homini socius" which emphasizes that humans are social creatures. Cooperative learning is a learning process that supports an atmosphere of social interaction, cooperation, complementarity in learning the topics studied with two or more people. This learning trains students to build their knowledge in acquiring new knowledge. Cooperative learning is a teaching and learning trick to overcome students with different ability levels. The application of learning in the classroom, this learning will divide students into heterogeneous groups. Groups of students with high intellectual abilities will group with students who have intellectual abilities who are less capable in the hope that they will complement each other and teach each other in the cohesiveness of a team. The researcher can determine the number of group members.

A cooperative method is expected to stimulate students to have determination, a strong will to learn, and become a successful generation in life by avoiding a sense of individualism and increasing social sense following the core competencies of the current curriculum. So, it takes meaningful, memorable learning with Long Term Memory lifelong learning. Under Law No. 20 of 2003 article 40 paragraph 1, This states that educators are obliged to create a meaningful, fun, and dialogical learning atmosphere. In 2015 PISA (Program for International Student Assessment) field data, Indonesia is ranked 62 out of 70 countries. Based on TIMSS data, Indonesia is ranked 46th out of 51 participants with an average score of 397, while the international average score is 500 (Leward and Hirata, 2015). It can be said that the intelligence of Indonesia's young generation is still at a low level. Based on the results of field observations at SMP 1 Indramayu (2017), it was found

that 65% lacked group collaboration, 50% were less responsive, 70% lacked attention to listening to the subject matter, 55% of students were sleepy. This research aims to develop an enthusiasm for learning by using Group Investigation. It can be said that the intelligence or determination to learn of the younger generation is still at a low level. Someone with a low level of learning outcomes is not necessarily less intelligent but can also be caused by other factors. It includes lazy learning, lack of focus in learning, lack of willingness to receive lesson information to be recorded, lack of student curiosity in absorbing material so that they are less asked and answered. Based on field observations at SMP 1 Indramayu for 3 months using field notes instruments. It was found that 65% lacked group collaboration in recording important things, answering questions, 50% were less responsive in asking and answering questions, 70% less attention in listening to the subject matter to take notes, 55% of students were sleepy. Therefore, it is evident that enthusiastic behavior in receiving lessons, asking and answering questions is still lacking, so it can be concluded that students' enthusiasm for learning is still lacking. Therefore, meaningful learning is needed. Therefore, research is needed to analyze learning enthusiasm on the quality of learning in biology subjects.

## Literature Review

According to (Novak, et al, 1978), learning is a process of receiving information on how students can find new discoveries instead of the teacher "bribing" material ", the two dimensions of how the information received can be captured by the cognitive structure. According to (Supardan, 2016), meaningful learning This can be achieved through a constructivist approach, which is an approach that invites students to gain new knowledge with the help of their learning experiences. According to (Samuel & Santosa, 2012), the orientation of learning is student-centred. In this concept, the center of learning has shifted from what was previously on the teacher, to the student. Students can learn both face-to-face and independently and can learn from various sources, such as books, research journals, scientific forums (eg seminars), the internet, print media, and so on. Learning by utilizing these various sources can mainly be done in independent activities (in the semester credit system model).

One of the lessons that enable the development of the activeness of each student is Student Centered Learning (SCL)-Based learning. Learner-centered learning on the history learning process is expected to develop an understanding of historical material so as to make learning more effective. The goal is that this learning can synergize students with their real experiences and make students more active, later students can build learning independently and the teacher only as a facilitator. According to Sirait Putri, 2017), speaking skills is one aspect of language that plays an important role in an individual's daily life. Speaking is an activity of normal human life that is very important because this skill can be used to communicate between individuals, express opinions, convey intentions and messages, and express one's emotional feelings. Discussing is a skill that needs to

be known and learned techniques in carrying it out. Discussion skills can be obtained from the learning process in class. Discussion activities are very suitable to be applied in education, especially in teaching and learning activities. The teacher can invite students to play an active role in solving a problem with discussion. Teachers do not merely deliver material using lectures, but students can learn to obtain information in different ways, not just as listeners. According to Arikunto (2012), the research examines a thing/object to be studied. They used a certain methodology adapted to the object of the problem and the research objectives—the research data in the classroom, namely, a group of students. At the same time, they can receive and understand the subject matter from the teacher with the subjects that have been scheduled.

The paradigm shift in the teaching-centered learning process (Teacher-Centered) to student-centered learning (Student-Centered) is expected to encourage learners to be actively involved in building knowledge, skills, and attitudes. Teachers can develop cooperative learning that is tailored to the needs of students. Cooperative learning is learning that supports a student center where students will be active, work together to learn with their peers, teachers, and their environment. In cooperative learning, there is a constructivism approach. According to Dadang Supardan, 2016).

In constructivism learning, active knowledge constructors have the following principles: first, active learning is that learners actively construct their learning from various inputs they receive. This implies that learners need to be active to learn effectively. Learning helps students find new knowledge instead of looking for the best answer without knowing the meaning of the answer. Second, children learn to be able to go through problems in the field and then look for solutions, learning that can grow their metacognition. Third, for constructivists, learning is a search for meaning. This can mean that if learning is meaningful, it will give rise to its impression on students so that the knowledge gained will not be lost and will always be memorable in their cognitive structure. Fourth, knowledge construction not only tends to individuals but also how they can build something new with friends, teachers, parents, the surrounding community. Fifth, collectively constructing knowledge is that to be effective, teachers must know both in practical and scientific terms in learning, aspects that support learning effectiveness also need to be considered. Sixth conceptual and implicit learning, including facts, abstracts, predictions, solution designs, and hypotheses. Seventh, learning in-depth means that learning is carried out by asking questions about the previous material (reviewing), connecting the material links between previously acquired concepts and new concepts. Eighth, teaching is as empowerment of learners, namely by self-reflection both from self-reflection, reflection between friends so that they understand themselves and are open to outside input (Von Glassersfeld, 1989).

According to (Dadang Supardan, 2016) The first dilemma is conceptual: How do

I understand the cognitive/individual, social, and dialectical conceptions of constructivism and reconcile these different perspectives with my practice of teaching students? The second dilemma is pedagogical. How do I teach in a constructivist way, respecting my students' efforts to think for themselves while still ensuring that they learn the academic material? Third are the cultural dilemmas: What activities, cultural knowledge, and ways of speaking will build a community in a diverse classroom? The fourth dilemma, the political dilemma: How can I teach for deep understanding and critical thinking but still be able to satisfy the demands of accountability from parents and the necessity of no child left behind. In the example of the learning application below, the author takes the form of the Constructivism Learning Model "Learning Cycle". First is the discovery phase (diskaveri); at this stage, students are encouraged to create open-ended questions and hypotheses. For example, regarding the study of the National Movement as a resistance to Western Imperialism & Colonialism, then in the initial activity, the teacher must be able to encourage students to learn about the National Movement, for example, why is the period 1908-1942 often referred to as the National Movement? What was the distinctive feature of the period of the National Movement? How do you think about the importance of the Movement/struggle in our lives today? Second, the Concept Introduction phase; in this case, students are busy discussing several new concepts about the National Movement through teacher guidance by discussing and questioning concepts related to these topics. Suppose the concept; National Awakening; Budi Utomo's organizations, Muhammadiyah, Sarekat Islam, Indische Partij, PNI, Partindo, Parindra, GAPI, Volksraad, Petisi Sutardjo, and so on. Or students can look for the concepts of the parts that accompany the discussion, such as Founder, Pioneer Fighter, Sukamiskin Prison, extradited/exiled to Digul, Netherlands, Conservative Group, cooperative, non-cooperative, and so on. The third is the concept application phase; applying the concepts presented in stages 1 & 2 may repeat the stages if necessary. At this stage, students can connect past National Movement organizations with current professional organizations, and students can provide new proposals in solving political, economic, social, and cultural problems in today's life. For example; Students can explain the relationship between political organizations in the past and political parties that are developing today. Comparison of the organizational forms of the National Movement with professional organizations that are now developing, such as the Indonesian Doctors Association, Indonesian Teachers Association), and so on. Students can also analyze and discuss what they have done in small group discussions. The Indonesian people are not being colonized economically, culturally, and politically today by Western countries and developed countries in general. The importance of a creative and productive work ethic is the basic capital that must be possessed as a nation that seeks to free the shackles of poverty, and the development of a persistent entrepreneurial spirit is a

necessity in pursuing an independent economy. In this case, the teacher can provide a useful scaffolding for students. A technique of changing the level of support, as the student's abilities improve, less guidance is given.

Effectiveness is the level of success that affects the target. To realize effective learning, teachers play an important role in learning. Teachers must be able to guide, direct and create conditions for student learning. The teacher must determine the learning model to carry out an active learning process. Siti Khoirunisyah (in Hamdani, 2017). One of the student-centered is cooperative learning. Cooperative learning is known as group learning. In cooperative learning, various types of cooperative learning models have been developed, one of which is group investigation (Siti Khoirunisyah, 2017). According to Faujiyah (in Slavin, 2017), the group investigation (GI) cooperative learning strategy can be used to teach and learn science material. The existence of science topic assignments made per subtopic design from the GI itself will make students more focused on learning with their group friends. Furthermore, in the investigation stage, the students seek information from various sources. The Group Investigation learning model invites students to develop communication and group process skills. The advantages of the group investigation learning model are that it gives the spirit to take the initiative, be creative and active and can learn to solve and handle a problem (Siti Khoirunisyah, 2017).

Faujiyah et al. (2017) state that with collaboration, students will exchange ideas, have arguments that can foster curiosity. This year's curiosity fosters students always to want to learn so they can answer the questions that cross their minds. This study tries to analyze the four enthusiasm indicators through Group investigation to find out which indicators are the most dominant when the GI is applied. The Group Investigation learning model is applied to the human excretory system material using field notes (Field Notes), proving evidence in main notes or unraveling notes about the ongoing learning process. These observations regarding aspects of learning in the classroom, classroom atmosphere, classroom processing, teacher-student interaction, student-teacher interaction, and several aspects can be recorded as field notes that will be used as data sources. The observer observed the teacher's activities in the Group Investigation learning process that went well according to the syntax. Learning is an activity that is usually devoted to students, while teaching is a responsibility aimed at the teacher. There are still many people who are wrong about the true meaning of learning and teaching. Many education experts have expressed that learning is not just gathering knowledge. The most efficient solution is to evaluate learning strategies, especially using learning models that involve students learning based on problem-solving concepts in their minds by applying structured or constructed steps according to the correct pattern or stage. For this purpose, the Group Investigation (GI) type of cooperative learning model is used.

Based on previous studies, namely research (Azizah et al., 2018) about the analysis of critical thinking skills in mathematics learning. Secha, (2015) critical thinking indicators about considering the results of observations most dominant appeared in Problem Based Learning. Priambada et al. (2018) that the implementation of Group investigation can improve student learning achievement. Freeman (2013) that students can develop their mathematics learning skills to be more critical with GI through documentation data, questionnaires given by descriptive analysis. The advantage of this research is that it can identify the most dominant indicators of enthusiasm for learning through GI. Anggis (2018) about the highest critical thinking indicator is in the observation indicators and results through the Group Investigation model. In addition, there has been no research on enthusiasm indicators to be investigated more deeply through the Group Investigation model. In addition, GI also has a positive effect on students, namely having better cooperative skills. Even with other group members, students have great independence, express themselves better, and have a sense of responsibility. Students to plan, investigate, organize so that students in arguing for their findings have a strong sense of confidence based on facts and theories and their rationale.

## Research Method

The research method is a qualitative descriptive method, namely descriptive analysis. According to Secha (2015), a descriptive analysis method is a form of research that describes natural phenomena. Data can be seen from questionnaires/questionnaires or instrument test sheets depending on the needs of the research scale. The stages of this method include covering. This type of research is a type of descriptive analysis research. The data seen from the ordinal scale is made in the form of interval data (percentage), the research time is three months, the location of SMP Negeri 1 Indramayu. West Java. The research subjects consisted of two classes VIII F (35 people) and VIIIG (35 people). Retrieval can be one class and two classes for more data—the data collection techniques by questionnaires. Questionnaires were distributed three times with three meetings after completing the teacher's learning.

According to Samuel & Santosa (2018), the instrument of learning enthusiasm indicators studied included students' persistence in practicing in listening to educators' explanations. Enthusiasm to answer questions, enthusiasm for asking questions, students eager to record something new while learning was taking place. Enthusiasm is a choice of feelings that arise, are chosen, and continue to be strengthened. Because of that, enthusiasm can be generated from within yourself or by circumstances outside yourself. The most powerful is a choice from yourself. When you choose to be enthusiastic, then the bottom consciously we will run the enthusiasm program in mind and immediately arouse the will. Data collection techniques with questionnaires were designed based on students' enthusiasm for learning consisting of 10 questions. The questionnaire consists of positive and negative questions. The questionnaire was compiled with alternative answers Strongly Agree (SS)

with a score of 4, Agree (S) with a score of 3, Disagree (KS) with a score of 2, Disagree (TS) with a score of 1. Suharsimi (2013) in the form of a descriptive translation of the mean results of the questionnaire. The data analysis technique is in the form of a percentage of the scores obtained in the questionnaire.

$$\%X\ Average = \frac{score\ obtained}{total\ Score}\ x\ 100\%$$

## Results and Discussion

The results of the study can be seen in Table 1. The percentage of enthusiasm for learning at each meeting

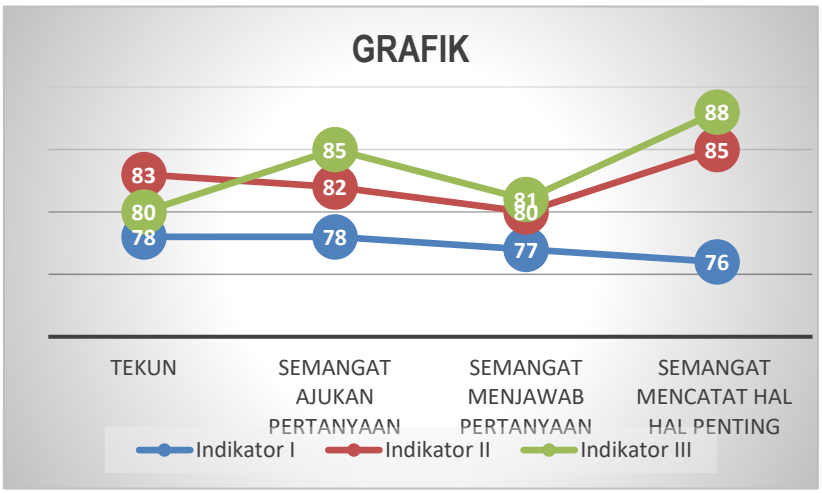
**Table 1.**

*Average Student Enthusiasm in Each Meeting*

| No | Indicator | Enthusiasm for learning/meeting | | | P(%) | Category |
|---|---|---|---|---|---|---|
| | | I | II | III | | |
| 1 | Persistent | 78 | 83 | 80 | 80.3 | B |
| 2 | Excited to ask questions | 78 | 82 | 85 | 81,67 | B |
| 3 | Passion to answer questions | 77 | 80 | 81 | 79.33 | B |
| 4 | Enthusiasm to record important things | 76 | 85 | 88 | 83 | B |
| | (P%) | 77,25 | 82.5 | 83.5 | | |

Information:
B= Fine
Meeting I: Preparation
Meeting II: Implementation
Meeting: Discussion

**Figure 1.**
*Average Enthusiasm of Learning in Each Meeting*




Note: Indicator = Meeting

## Discussion

The analysis of learning enthusiasm indicators was carried out in 3 meetings. The first meeting is preparation, namely dividing groups based on topics, giving learning objectives, explaining the learning flow, explaining the questionnaire to be given, preparing literature, opening worksheets, discussing locations to be observed, identifying problems through the video provided, formulating problems and then filling out questionnaires. The second meeting is the implementation stage, namely making observations in locations related to the problems in the video, identifying problems, answering questions through literature studies and field data, filling out questionnaires. Finally, the third meeting held group discussions and presentations followed by class discussions, filling out questionnaires.

Based on the three meetings, it can be evaluated that the results of the highest indicator are in the spirit of noting important things by 83%. The second-largest is the indicator of enthusiasm for asking questions. The third-largest is the indicator of perseverance, and the fourth is the indicator of enthusiasm for answering questions. This can be obtained because the steps of the group investigation model require notes such as the topic selection step, the investigation step, the material steps presented, and even evaluation. So both willingly and demanding students are asked to record what is produced in the activity.

Previous research can support the Group Investigation model that this learning can generate enthusiasm. Still, it has not focused on evaluating what indicators of enthusiasm are the most dominant when GI is applied in biology learning. The notion of enthusiasm is the spirit/passion of one's child to do something / learn something / look for something without coercion but from the element of interest from someone to take that step. So the notion of learning enthusiasm is the enthusiasm of students to participate actively in the implementation of learning in the classroom. It is hoped that students can find something new from previously not knowing to know happily without coercion. This analysis aligns with Secha's (2015) research on critical thinking analysis through problem-based learning. Azizah (2015) analyzed the critical theater of mathematics learning through the 2013 curriculum.

Meanwhile, Widyanto (2017) showed an increase in student learning activities. On the GI model. This is in line with research (Siti Khoirunisyah, 2017) that the GI model effectively stimulates student learning outcomes. A research article from Widyanto (2017) about GI can increase students' interest in learning, but research has not analyzed which indicators are the most dominant if GI is applied. The results of this study describe data on science learning outcomes in learning activities before applying the method of group investigation assisted by flannelgraph media and student learning outcomes in science subjects after applying group investigation assisted by flannelgraph media in each cycle as well as student interest responses. Group investigation is a discovery-based group learning method (Inquiry). In group investigation, students can choose the material they want to learn. Students construct knowledge independently in their groups through

investigations and discoveries to complete the chosen learning material. Teachers guide students more than they provide information, while students are the center of learning and students are allowed to develop creativity and critical thinking. In Group Investigation learning, students determine the topic of the problem. Students conduct investigations and discoveries and discuss and exchange ideas to solve problem topics, and construct knowledge with their groups to trigger an increase in students' interest in learning. Learning outcomes are changes in behavior in students to things that are getting better after learning which is marked by the competencies that students master. These competencies include knowledge, attitudes, and skills. The benefits of learning outcomes for teachers are useful for measuring student success in achieving learning objectives while determining the level of student success (learning outcomes) in teacher-directed learning—measurement of student learning outcomes using learning outcomes techniques and instruments.

Interest in learning is manifested in the form of participation in ongoing learning. from (Prasetyo Widyanto, 2017) in Martiyono) The process of fostering student interest/interest in learning in all subjects is a task that a teacher must complete. IPA subjects are no exception. Science is systematically arranged knowledge, and its use is generally focused and limited to natural phenomena. It is not only marked by the existence of a collection of facts but also by the scientific method and scientific attitude (Wahyana in Trianto, 2010). Science learning through the inquiry process trains students' thinking skills to understand a learning concept optimally and know the benefits of the concepts they learn so that students can use the concepts they learn in everyday life. According to Arinda et al. (2019) Group Investigation (GI) is a learning model that guides students that stimulates students to collect data so that students are required to record important things that will be used as capital in presentations.

This is in line with research (Sirait Putri, 2017) that GI can improve the discussion skills of SMP class VIII 2 Muntilan students by taking notes to answer a problem so that students' enthusiasm for written and oral discussions is seen. Based on the results of research conducted on the Group Investigation (GI) model ), it can be concluded that the model can improve the skills of class VIII A students of SMP Negeri 2 Muntilan in discussing. This increase can be seen in the discussion learning process, namely, in student cohesiveness, group work organization, the initiative in group work, student activity, and how students motivate group members. Discussions become more lively with the opportunity to speak for students because of the division of tasks at each student. In addition, according to the objectives of the Group Investigation (GI) model seen from the learning process, which shows students are always active in their groups. Students play a very important role in groups. Students can freely express their ideas and ideas, students can solve problems together, and students can express their opinions in public. In product, the increase occurred in the score of each aspect that was assessed. Students become more active in their opinion. There is no longer domination in

speaking because of the equality in speaking. In discussion activities, students have been brave in conveying ideas, opinions, suggestions, approvals, and refusals. Mastery of the topic, fluency of speech, eye gaze, the loudness of voice, and students' use of structure/vocabulary also increased compared to before the action. (Siddiqui, 2013) states that Group Investigation can increase cooperation between groups. In terms of cooperation, students are expected to cooperate. Each student has the expertise to analyze and find basic concepts from data recorded in the field and literature studies.

The application of learning process skills is the management of teaching and learning activities that focus on actively and creatively involving students in obtaining learning outcomes. A place for discovering and developing facts, concepts, and principles of science for students. Which ultimately develops the attitudes and values of scientists in students. Applying the process skills approach in learning activities has two main stages, namely the warm-up stage and the teaching-learning process stage. In the warm-up stage, the teacher can direct students to the main problem so that students are ready, both mentally, emotionally, and physically. Likewise, teachers in managing learning in schools have a vital role. Teachers are the ones who deal directly with students in educative interactions so that adequate teacher competence is needed in carrying out their duties as educators in schools. Thus, a teacher is always expected to be able to control his emotions in dealing with students in class. As a result, they have a high spirit in learning, deal with differences in students' characteristics, have extensive knowledge, be creative, innovative, and be an example in school. (Sriningsih, 2017).

According to Khosiyati (2017), indicators or markers of student learning enthusiasm are during the learning process. For example, students are enthusiastic in listening to the teacher's explanations. Students are excited to answer each class question. Students ask questions in class from their curiosity. Students are eager to record things. New, students are excited to argue, exchange ideas in class. According to Sriningsih (in Purwoyoso, 2017), learning success factors are 1) personal factors such as intelligence, training, experience, motivation, interest, enthusiasm, activity. 2) Social factors, namely family, school (teachers and school friends, school environment). Anggis (2018) about the highest critical thinking indicator is in the observation indicators and results through the Group Investigation model. In addition, there has been no research on enthusiasm indicators to be investigated more deeply through the Group Investigation model. In addition, GI also has a positive effect on students, namely having better cooperative skills. Even with other group members, students have great independence, express themselves better, and have a sense of responsibility. Students to plan, investigate, organize so that students in arguing for their findings have a strong sense of confidence based on facts and theories and their rationale.

The learning model has advantages and disadvantages. The weakness of the Investigation group is that students who have low cognitive levels will find it difficult to follow if they are not actively asking group friends (Fadilurrahman et al.,

2019). The advantages of the Group Investigation model refer to cooperative learning that motivates students to work together and focus on the lesson. Enthusiasm to build new knowledge is not only receiving knowledge but also in asking and answering questions. Enthusiasm in reporting data was found verbally and in writing, actively learning, and discussing. Enthusiasm is also seen in interactions with each other regardless of age and gender, and differences in intelligence.

## Conclusion

Based on the analysis and discussion, it can be concluded that of the four indicators of enthusiasm, the indicator that gets the highest percentage (83%) is students' enthusiasm in recording important things as teaching materials at home. The conclusion of the enthusiasm indicator in the form of student learning enthusiasm in recording important things is the most dominant when learning is implemented through Group Investigation. Thus, it is necessary to improve learning through group discussions in the future.

## Recommendation

Suggestions for this research, there is a continuation of research with quasi-experimental, or in terms of profile, model development. There are no obstacles in this research. As long as the preparation is done carefully, the activities will adjust.

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