



# Student Facilitator Learning Model and Concept Map-Assisted Explanation on Interests and Learning Outcomes of Elementary School Students

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## ABSTRAK

Guru belum menggunakan model pembelajaran yang inovatif dan pembelajaran masih terfokus pada guru. Pembelajaran yang diberikan oleh guru sebelumnya hanya dari perumpamaan yang membuat siswa kurang memahami materi yang diberikan oleh guru. Penelitian ini bertujuan untuk menganalisis pengaruh model pembelajaran SFAE berbantuan peta konsep terhadap minat dan hasil belajar IPA siswa kelas V. Jumlah populasi penelitian ini adalah 175 siswa, sampelnya adalah 63 siswa. Data minat belajar dikumpulkan dengan angket, sedangkan data hasil belajar IPA dikumpulkan dengan tes. Hasil analisis menunjukkan: 1) Hipotesis pertama dengan Fhitung sebesar 173,029 ( $p < 0,05$ ). 2) Hipotesis kedua dengan Fhitung sebesar 22,496 ( $p < 0,05$ ). Dan 3) Hipotesis ketiga dengan Fhitung 90,955 ( $p < 0,05$ ). Berdasarkan hasil tersebut, dapat disimpulkan bahwa terdapat perbedaan yang signifikan minat dan hasil belajar IPA antara kelompok siswa yang dibelajarkan dengan model pembelajaran Student Facilitator And Explaining berbantuan peta konsep dan kelompok siswa yang tidak dibelajarkan dengan Student Facilitator And Explaining. Model pembelajaran Facilitator And Explaining berbantuan peta konsep pada siswa kelas V SD.

## ABSTRACT

Teachers have not used innovative learning models and learning is still focused on teachers. The learning provided by the previous teacher was only from parables which made students less understanding of the material given by the teacher. This study aims to analyze the effect of the concept map-assisted SFAE learning model on the interest and learning outcomes of science in grade V students. The total population of this study was 175 students, the sample was 63 students. Learning interest data was collected by questionnaires, while science learning outcomes data were collected by tests. The results of the analysis show: 1) The first hypothesis with  $F_{\text{count}}$  is 173.029 ( $p < 0.05$ ). 2) The second hypothesis with a  $F_{\text{calculate}}$  of 22.496 ( $p < 0.05$ ). And 3) The third hypothesis with a  $F_{\text{calculate}}$  of 90.955 ( $p < 0.05$ ). Based on these results, it can be concluded that there are significant differences in interest and science learning outcomes between groups of students who are taught with the Student Facilitator And Explaining learning model assisted by concept maps and groups of students who are not taught with the Student Facilitator And Explaining learning model assisted by concept maps in grade V elementary school students.

## 1. INTRODUCTION

Education in Indonesia is always dynamic, aka changing from time to time. Education in Indonesia develops according to the needs of the times (Ariasa, 2018; Kumala Sari, 2018; Sulasmi, 2018). The development of education in Indonesia certainly aims to achieve quality education. Recognizing the importance of the role of education in a country, the management of education in Indonesia continues to strive for a better direction. However, the implementation of education in Indonesia is inseparable from various obstacles. These obstacles often occur in the learning process. One of the problems faced by our world of education is the problem of weak learning processes (Karuniawati et al., 2022; Sudrajat et al., 2019; Trigustini et al., 2022). The learning process that occurs inside cannot be followed properly by students because the learning model used is not adapted to the abilities of students in class. Learning

should be conditioned so that students are able to encourage student activity to achieve learning goals so that learning activities will feel more enjoyable (Peri Wijaya et al., 2021; Sianipar, 2022; Sujarwo, 2021). Learning is said to be good, if the learning objectives are achieved supported by a good learning process (Ayu et al., 2018; Hidayah, 2019; Yuliani et al., 2017). This good learning process will definitely have an impact on learning interest and student learning outcomes. Interest is very big influence on learning activities and student learning outcomes. With an interest in learning in students, it will generate curiosity and pleasure in students to continue learning. A learner feels interested in a lesson if the lesson is in accordance with previous experience and has something to do with him. Even students who get a pleasant learning experience have feelings of pleasure or liking for a subject, then these students will continue to study the knowledge they like. There is no feeling of coercion on students to study the field.

The purpose of education is not just to transfer knowledge, but also to develop students' attitudes and skills so that they become individuals who have good competence in order to face challenges in the future (Hermayanti et al., 2018; Insiyah & Rukmana, 2022; Mursabdo, 2021). Education is a planned conscious effort to create a learning atmosphere and learning process so that students can develop their own potential to have spiritual strength, self-control, personality, intelligence, noble character, and the abilities needed by themselves, society, nation and state. So that teachers can plan and carry out effective learning activities for students optimally. Learning activities should apply 4C including Critical Thinking and Problem Solving, Creative and Innovation, Communication and Collaboration in the learning process. Through diverse learning methods for students, teachers must be able to face the challenge of finding ways to enable them to learn effectively. Learning activities must be able to improve student skills so that students are more motivated to learn to face global challenges such as critical thinking skills, effective communication skills, the ability to innovate and solve problems through collaboration.

Learning activity is a process of acquiring knowledge, both theory and practice. Teachers play a very important role in teaching and learning activities for the success of national education goals, especially in improving student learning outcomes, teachers are required to be creative and innovative (Dewi & Sudana, 2016; Jusmiati et al., 2022; Nur'aini et al., 2022). This will foster student motivation in taking lessons and understanding the material provided by the teacher. The development of education is not spared from the problems that exist. One of them literacy, especially in science lessons, is still relatively low, so improvements need to be made to improve the quality of education. Natural science literacy is a person's attempt to use scientific knowledge through the process of identifying questions, collecting evidence, and analyzing this evidence so that conclusions can be drawn based on findings with the aim of understanding the universe and its events due to human activities (Anjelina Putri et al., 2018; Handayani et al., 2016). So we need a new learning model in the learning process that can make it easier for students to understand the material and create a fun learning atmosphere. So it can be concluded that the ability of students in learning science subjects is still relatively low. So it is necessary to improve the learning process so that it can affect student learning outcomes, especially in science subjects. In several studies that discussed science related subjects in fifth grade students, researchers encountered several existing problems. Science learning is still dominant using the lecture method and giving assignments so that in its implementation so that learning has not fully carried out active and creative learning. Other research also explains that there are problems in the learning process, the implementation of which provides more information in a less attractive way, as well as the lack of media used. The learning process like this results in students being less involved in learning activities.

Similar to this problem, based on the observations of fifth grade elementary school students, it was found that the average student score for daily tests was still low. Students complete learning only about 30% or not yet reached 70% of the number of students there. Based on the data obtained, the lowest student score in the learning was 50, while the minimum completeness score applied by the teacher for science subjects was 75. So the learning was not said to be successful. Learning activities are still focused on delivering material without involving students in its implementation. So that learning activities seem monotonous and boring. This affects the focus of students in participating in learning activities. Learning activities carried out in this way lead to a lack of enthusiasm for students to follow the learning process and the impact affects students' lack of understanding regarding the material being studied. Inadequate infrastructure facilities also affect learning activities. For example, in learning activities the teacher has not used interesting media related to the material being taught. Learning activities that are less than optimal like this cause student learning outcomes to be classified as low. The success of student learning is still related to the creativity of the teacher in choosing the right and interesting learning model. Based on the problems above, researchers offer the use of learning models that are interesting and different from previous learning activities (Agustina et al., 2019; Harneli et al., 2019; Supardi, 2017). One of them uses the Student Facilitator And Explaining learning model. This learning model opens opportunities for students to re-explain the material that has been conveyed by the

teacher to their friends. The use of the student facilitator and explaining learning model has a positive impact on student learning outcomes. In addition to learning outcomes students are required to learn actively and innovatively to improve students' understanding of concepts. By using the SFAE Model the teacher is able to present or demonstrate material in front of students and then gives them the opportunity to explain to their friends. The use of the SFAE model can increase enthusiasm and be active in participating in the learning process in class. Active learning can make it easier for students to understand the material discussed. This can stimulate students to have the courage to say what they think is true and in accordance with the material being discussed (Malik et al., 2019; Widiasih et al., 2019). Using the Student Facilitator and Explaining learning model can significantly increase student and teacher activity. The occurrence of interaction between students and teachers can make it easier for teachers to find out the problems faced and the level of students' understanding of the material being conveyed. So it can be concluded that the student facilitator and explaining model is a learning model in which the teacher provides opportunities for students to present material to other students or classmates. The selection of the student facilitator and explaining learning model will be optimal if it is paired with media that helps students in learning activities. The media offered is a concept map. This media can bridge the learning process between teachers and students.

The use of interesting media will generate student motivation in participating in learning activities so that it can have an impact on learning outcomes. Learning media is said to be good and appropriate if it has characteristics or characteristics such as, according to learning objectives, quality, attractive appearance, can provide student experience, is practical and lasts a long time, is easy to use, can improve learning outcomes, and the effectiveness of media use. The combination of the Student Facilitator and Explaining learning model and concept map media when put together can create a new learning atmosphere. And can improve student learning outcomes. Based on the advantages of learning models and media above the results of the research that has been done, the Student Facilitator and Explaining Learning Model Assisted by Concept Maps is able to influence the interest and results of learning science in class V students can run optimally. This study aims to analyze the effect of the SFAE learning model assisted by concept maps on interest and learning outcomes in science in fifth grade students.

## 2. METHOD

This study used a quasi-experimental design method with the posttest only control group design (Purwanto, 2020; Verdinelli & Scagnoli, 2013). This design is used to determine the effect of the independent variable Student Facilitator and Explaining on the dependent variable of interest and learning outcomes. Research with nonequivalent control group design, involving two groups, namely one as the experimental group and one as the control group selected by the researcher to compare between the control class that was not given treatment in the form of a student facilitator and explaining type learning model with the experimental class that was given treatment, so that in drawing conclusions from the comparison of the control class and the experimental class. So this study involved two groups. For more details, the research design can be seen in Table 1.

**Table 1.** The Posttest Only Control Group Design Research Design Model

Group	Treatment	Posttest
A	X1	O1
		O2
B	-	O1
		O2

The population can be all individuals who have a certain pattern of behavior or part of the group. In this study, the population was the total number of fifth grade students at SD Gugus I Gsuti Ngurah Rai, namely 175 students. The sampling technique used in this research is Cluster Random Sampling so that each class gets the same opportunity to be the research sample. The cluster random sampling technique is a method of selecting samples based on groups of subjects that naturally come together. The determination of the research sample is only by randomizing the class by minimizing the situation of students who know they are involved in the experiment. The methods used in this study include lecture methods and discussion methods. The lecture method is a teacher-centered learning method, the delivery of material is carried out by the teacher verbally and the interaction is carried out only in one direction without any feedback from students. The discussion method is a way of presenting lesson material in which the teacher gives opportunities to students (groups of students) to hold scientific conversations in

order to gather opinions, make conclusions, or compile various alternative solutions to a problem. So it can be concluded that the discussion method is a process of exchanging information and experiences, solving problems that are actively carried out by participants. To measure the learning interest of fifth grade elementary school students, the instrument used in this study was in the form of a questionnaire. The instrument grids in this study can be seen in [Tables 2](#) and [Table 3](#).

**Table 2. Science Problem Grid**

Core Competence	Basic competencies	Indicator	Types of Learning Outcomes						Question Form
			C1	C2	C3	C4	C5	C6	
KI. 3. Understanding knowledge factual, conceptual, procedural, and metacognitive at a basic level with how to observe, ask, and try based on curiosity about himself, God's creatures and their activities and the objects he finds at home, at school, and on the playground.	3.8. Understand classification inner material daily life based on its constituent components (single substance and mixed substance)	3.8.1. Explain the terms pure substance, mixture, element and compound.	✓						MC
		3.8.2. Give examples of pure substances, mixtures, elements and compounds in everyday life.		✓					MC
		3.8.3 Identifying the constituent substances of an object in everyday life.		✓					MC
		3.8.4.Distinguishing pure substances, mixed substances, elements and compounds in everyday life.			✓				MC
		3.8.5 Analyzing the properties of elements, mixtures, and compounds.				✓			MC
		3.8.6 Analyzing the constituents of drinks and then classifying them into single substances and mixed substances.						✓	MC
		3.8.7. identify substance differences homogeneous mixture and heterogeneous mixture.		✓					MC

Core Competence	Basic competencies	Indicator	Types of Learning Outcomes						Question Form
			C1	C2	C3	C4	C5	C6	
		3.8.8 Classify objects into single substances, mixtures, elements, and compounds in everyday life.					✓		MC

**Table 3.** Grid of Interest in Learning Science Questionnaire for Class V

Dimension	Indicator	Description	Statement		Total Item
			Positive	Negative	
Interest in Student Learning	Feeling happy	Opinions of students about science learning	3,4,5,		6
	Attention	Students' impressions of science teachers		1,2,6	
		Feelings of students while participating in science learning	8,10		9
		Attention when following science lessons	12,14		
		Student attention during science lesson discussion		7,9,11,13,15	
	Interents	Student interest in participating in learning	16,17,20,21, 22,23, 25	18,19,24	10
		Acceptance of students when given assignments/homework by the teacher			
<b>Total number</b>					<b>25</b>

### 3. RESULT AND DISCUSSION

#### Result

The purpose of this study was to analyze the effect of the Student Facilitator and Explaining learning model assisted by concept maps on the interest and learning outcomes of science in fifth grade students at SD Gugus I Gusti Ngurah Rai in the 2022/2023 academic year. Based on the measurement of interest and science learning outcomes that have been carried out on students who follow the Student Facilitator and Explaining learning model assisted by concept maps with students who take learning with conventional learning models, the data description is obtained in [Table 4](#).

**Table 4.** Description of Research Results

<i>Description of Research Results</i>				
<i>Mean</i>	193.59	19.63	172.16	16.35
<i>Median</i>	193	19	172	16
<i>Modus</i>	193	19	174	15
<i>St andar Deviasi</i>	7.29	2.92	5.48	2.54
<i>Varians</i>	53.15	8.50	30.07	6.44
<i>Range</i>	26	11	23	11
<i>Minimum Score</i>	180	14	161	11
<i>Maksimum Score</i>	206	25	184	22
<b>Total</b>	6195	628	5337	507

Based on Table 4, data on learning interest following the Student Facilitator and Explaining learning model assisted by concept maps has range = 26, n = 32, minimum score = 180, maximum score = 206, average = 193.59, median = 193, mode = 193, standard deviation = 7.29, and variance = 53.15. The frequency distribution of learning interest data is presented in Table 5.

**Table 5.** Frequency Distribution of Learning Interest Data of Students who take part in learning with the Student Facilitator and Explaining Learning Model Assisted by Concept Maps (A1Y1)

No.	Interval Class	Median	Frequency	Frequency Relatively (%)
1	180 - 184	182	4	12.50
2	185 - 189	187	6	18.75
3	190 - 194	192	8	25
4	195 - 199	197	7	21.88
5	200 - 204	202	5	15.63
6	205 - 209	207	2	6.25
<b>Total</b>			<b>32</b>	<b>100</b>

To find out the tendency of classifying data on students' learning interest following the Student Facilitator and Explaining learning model assisted by concept maps, it is done by calculating the ideal mean (Mi) and ideal standard deviation (Sdi) where  $Mi = \frac{1}{2} \times (\text{maximum score} + \text{ideal score})$  and  $Sdi = \frac{1}{6} (\text{max score} + \text{minimum score}) = \frac{1}{2} (220 + 44) = 132$ ;  $SDi = \frac{1}{6} (\text{ideal maximum score} - \text{ideal minimum score}) = \frac{1}{6} (220 - 44) = 29.33$ . Based on the results of these calculations, it is then possible to compile a conversion table for the category data of students' learning interests following the Student Facilitator and Explaining learning model assisted by concept maps in Table 6.

**Table 6.** Category Data of Students' Learning Interests

Interval	Classification
$176 < \leq 220$	Very high
$146.67 < \leq 176$	High
$117.34 < \leq 146.67$	Medium
$88.01 < \leq 117.34$	Low
$44 < \leq 88.01$	Very low

The distribution of the frequency of data on students' learning interest who take part in learning with the conventional model is presented in Table 7.

**Table 7.** Data Distribution of Students' Interests in Learning with Learning Models Conventional (A2Y1)

No.	Interval Class	Median	Frequency	Frequency Relatively (%)
1	161 - 164	162.5	3	9.38
2	165 - 168	166.5	5	15.63
3	169 - 172	170.5	8	25
4	173 - 176	174.5	8	25
5	177 - 180	178.5	5	15.63
6	181 - 184	182.5	2	6.25
<b>Total</b>			<b>31</b>	<b>100</b>

Base on Table 7 data on the learning interests of students who take part in learning without the Student Facilitator and Explaining learning model assisted by concept maps have range = 23, n = 31, minimum score = 161, maximum score = 184, average = 172.16, median = 172, mode = 174, standard deviation = 5.48, and variance = 30.07. To find out the tendency to classify data on students' interest in studying conventional learning models, it is done by calculating the ideal mean (Mi) and ideal standard deviation (Sdi) as show in Table 8.

**Table 8.** Interval Class for Each Category

Interval	Classification
$176 < \leq 220$	Very high
$146.67 < \leq 176$	High
$117.34 < \leq 146.67$	Medium
$88.01 < \leq 117.34$	Low
$44 < \leq 88.01$	Very low

Base on Table 8 where  $M_i = \frac{1}{2} \times (\text{maximum score} + \text{minimum score})$  and  $S_{di} = \frac{1}{6} (\text{maximum score} + \text{minimum score}) = \frac{1}{2} (220 + 44) = 132$ ;  $SD_i = \frac{1}{6} (\text{ideal maximum score} - \text{ideal minimum score}) = \frac{1}{6} (220 - 44) = 29.33$ . Based on the results of these calculations, it is then possible to compile a conversion table for the data category of interest in learning of students who take part in learning with the conventional model. Data on science learning outcomes following the Student Facilitator and Explaining learning model assisted by concept maps have the ranges shown in Table 9.

**Table 9.** Data Distribution of Science Learning Outcomes of Students Using the Student Facilitator and Explaining Learning Model Assisted by Concept Maps (A1Y2)

No.	Interval Class	Median	Frequency	Relative Frequency (%)
1	14 - 15	14.5	2	6.25
2	16 - 17	16.5	6	18.75
3	18 - 19	18.5	10	31.25
4	20 - 21	20.5	5	15.63
5	22 - 23	22.5	6	18.75
6	24 - 25	24.5	3	9.38
<b>Total</b>			32	100

Base on Table 9 know that  $n = 32$ , skor minimum = 14, skor maksimum = 25, rata-rata = 19,63, median = 19, modus = 19, standar deviasi = 2,92, dan varians = 8,50. To find out the tendency to classify data on science learning outcomes of students who follow the Student Facilitator and Explaining learning model assisted by concept maps, it is done by calculating the ideal mean ( $M_i$ ) and ideal standard deviation ( $S_{di}$ ). Interval class is show in Table 10.

**Table 10.** Interval Class for Each Category

Interval	Classification
$18.75 < \leq 25$	Very high
$14.42 < \leq 18.75$	High
$10.09 < \leq 14.42$	Medium
$5.76 < \leq 10.09$	Low
$0 < \leq 5.76$	Very low

Table 10 shows where  $M_i = \frac{1}{2} \times (\text{maximum score} + \text{minimum score})$  and  $S_{di} = \frac{1}{6} (\text{maximum score} + \text{minimum score}) = \frac{1}{2} (25 + 0) = 12.5$ ;  $SD_i = \frac{1}{6} (\text{ideal maximum score} - \text{ideal minimum score}) = \frac{1}{6} (25 - 0) = 4.33$ . Based on the results of these calculations, it is then possible to compile a conversion table for the category of data on science learning outcomes for students following the Student Facilitator and Explaining learning model with the aid of concept maps. Data on science learning outcomes following conventional models of learning are shown in Table 11.

**Table 11.** Distribusi Data Hasil Belajar IPA Siswa yang Mengikuti Pembelajaran Dengan Model Konvensional (A2Y2)

NO.	Interval	Median	Frequency	Relative Frequency (%)
1	11 - 12	11,5	1	3,13
2	13 - 14	13,5	6	18,75
3	15 - 16	15,5	9	28,13
4	17 - 18	17,5	10	31,25
5	19 - 20	19,5	3	9,38
6	21 - 22	21,5	2	6,25
<b>Jumlah</b>			<b>31</b>	<b>100</b>

To find out the tendency to classify data on science learning outcomes of students participating in conventional learning models, it is done by calculating the ideal mean (Mi) and ideal standard deviation (Sdi) where  $Mi = \frac{1}{2} \times (\text{maximum score} + \text{minimum score})$  and  $Sdi = \frac{1}{6} (\text{maximum score} + \text{minimum score}) = \frac{1}{2} (25 + 0) = 12.5$ ;  $SDi = \frac{1}{6} (\text{ideal maximum score} - \text{ideal minimum score}) = \frac{1}{6} (25 - 0) = 4.33$ . Based on the results of these calculations, it is then possible to compile a conversion table for the category of data on science learning outcomes of students participating in conventional model learning in [Table 12](#).

**Table 12.** Interval Class for Each Category

Interval	Classification
$18.75 < \leq 25$	Very high
$14.42 < \leq 18.75$	High
$10.09 < \leq 14.42$	Medium
$5.76 < \leq 10.09$	Low
$0 < \leq 5.76$	Very low

## Discussion

Based on testing the first hypothesis, the results show that: there is a significant difference in interest in learning science between groups of students who are taught with the Student Facilitator And Explaining learning model assisted by concept maps and groups of students who are taught with conventional learning models in fifth grade elementary school students, with F count of 173.029 and a significance value of 0.000 or less than 0.05. Learning motivation and learning achievement have increased after being involved in the SFAE learning process. The SFAE learning model is proven to have a significant effect on student motivation and achievement. The Student Facilitator and Explaining (SFAE) learning model has a significant effect on students' learning motivation in grade V science at elementary schools ([Sihombing, 2021](#); [Sulasriani et al., 2023](#); [Wepe et al., 2016](#)). The Student Facilitator and Explaining (SFAE) learning model is a learning model that is suitable to be applied to provide opportunities for students to explore their abilities. The Student Facilitator and Explaining learning model is a learning model that trains students to be able to present their ideas or ideas to their friends. The Student Facilitator and Explaining learning model is a learning process in which students present ideas/opinions to other fellow participants.

The student facilitator and explaining learning model emphasizes more active student learning. In addition, the presentation of the material is related to everyday life so that students are more enthusiastic in learning to follow the teacher's learning. The application of the student facilitator and explaining learning model, combined with a concept map, makes the student facilitator and explaining learning model even better. With the help of concept maps, the student facilitator and explaining learning model makes it easier for students to grow their creative ideas. This is because concept maps make it easier for students to learn concepts in science learning and relate their knowledge to the material being studied, resulting in a meaningful learning process. Its meaning in the science learning process certainly makes students feel comfortable and excited about learning. This will indirectly foster students' interest in learning science. Therefore it can be concluded that the student facilitator and explaining learning model assisted by concept maps can effectively increase students' interest in learning science in fifth grade elementary school. There were significant differences in science learning outcomes between groups of students who were taught with the Student facilitator and explaining learning model assisted by concept maps and groups of students who were not taught with the student facilitator and explaining learning model assisted by concept maps in fifth grade elementary school students. Based on testing the second

hypothesis, the results show that: there is a significant difference in science learning outcomes between groups of students who are taught with the Student Facilitator And Explaining learning model assisted by concept maps and groups of students who are not taught with the Student Facilitator And Explaining learning model assisted by concept maps in class V students SD, with F count of 22.496 and a significance value of 0.000 or less than 0.05. The Student Facilitator And Explaining learning model with Mind Mapping influences learning outcomes and interest. The Student Facilitator and Explaining learning model with the help of simple learning media has a positive effect on the motivation and learning outcomes of Mathematics for fifth graders of elementary school. The Student Facilitator and Explaining learning model provides opportunities for students to express their opinions or ideas to each other in understanding a problem. It is intended that students' knowledge skills increase due to the contribution of ideas from other students. The advantages of the Student Facilitator And Explaining learning model are: 1) the material presented is clearer and more concrete, 2) it can increase students' absorption because learning is done with demonstrations, 3) it trains students to become teachers because students are given the opportunity to repeat the teacher's explanation that they have listen, and 4) motivate students to be the best in explaining teaching materials. The advantages of the Student Facilitator and Explaining learning model above, will be even more perfect when combined with a concept map.

The Student Facilitator And Explaining learning model with the help of concept maps makes it easier for students to explain and understand the concepts they are learning. This is because in a concept map, students first map the interrelationships between the concepts they learn, so that students learn these concepts as a whole (Dessy Wiranti et al., 2017; Halimah et al., 2019; Variani & Gede Agung, 2020). Students who study the concepts as a whole in learning science, of course, make the students' science learning outcomes more optimal. Therefore it can be concluded that the student facilitator and explaining learning model assisted by concept maps can effectively improve the science learning outcomes of fifth grade elementary school students. Simultaneously, there were significant differences in the interest and results of learning science between groups of students who were taught with the student facilitator and explaining learning model assisted by concept maps and groups of students who were not taught with the student facilitator and explaining learning model assisted by concept maps in fifth grade elementary school students. Based on the third hypothesis testing, the results show that: simultaneously, there are significant differences in interest and science learning outcomes between groups of students who are taught with the Student Facilitator And Explaining learning model assisted by concept maps and groups of students who are not taught with the Student Facilitator And Explaining learning model assisted with maps concept in fifth grade students at SD Gugus I Gusti Ngurah Rai for the 2022/2023 school year, with an F count of 90.955 and a significance value of 0.000 or less than 0.05. The Student Facilitator and Explaining learning model can run as expected if students are actively involved in designing learning materials that students study, this aims to make students understand and understand more in expressing their ideas or opinions. The Student Facilitator And Explaining learning model is very suitable to be applied with the help of Concept Maps.

The Student Facilitator And Explaining Learning Model Assisted by Concept Maps has a learning structure that can be used to increase student learning effectiveness. Students in learning explain the topic of learning material to their friends in turn. Regarding explaining learning material, it is assisted by using concept maps, to make it easier to understand a material or topic in learning (Bahtiar et al., n.d.; Karwati et al., 2018; Nopiani et al., 2017). Meanwhile, the learning process that is not Student Facilitator And Explaining assisted by concept maps tends to be directed at listening to teacher explanations, taking notes, doing assignments oriented towards mastery of knowledge, and memorizing the material being taught. Conventional learning is teacher centered learning, in which the teacher dominates learning activities through delivering material in lectures, assignments, and little time for question and answer activities. The implementation of non-Student Facilitator And Explaining learning with the aid of concept maps views the learning process as transferring as much and complete information as possible from the teacher to students. Thus, the subject matter presented becomes abstract and purely rote. Such learning activities cause students to become passive, so they do not get the opportunity to increase their interest in learning.

#### 4. CONCLUSION

Based on these results it can be concluded that there are significant differences in interest and learning outcomes in science between groups of students who are taught with the Student Facilitator And Explaining learning model assisted by concept maps and groups of students who are not taught with the Student Facilitator And Explaining learning model assisted by concept maps in fifth grade elementary school students.

## 5. REFERENCES

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