

Meaning learning model: Implementation, activities and responses of science students

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Abstract: This research aims to measure the implementation of meaning learning, activities and students' responses while they are involved in learning. This research is a quantitative type with a total of 24 students as subjects. The subject is a student at a junior high school in Pinolosian District, South Bolaang Mongondow Regency. Data collection used an observation sheet on learning implementation with 23 aspects, observation of student activities with 6 aspects, and a student response questionnaire with 20 questions. Data was analyzed using the percentage of each acquisition score. The research results show that the implementation of learning is good (3.50 – 4.00), good student activities which are dominated by carrying out literacy activities (reading books) to collect answers. Student responses are positive (91.87) and negative (8.13). The research concludes that learning makes sense carried out well, students become active and they respond well to the learning that has been carried out. Meaning learning needs to be implemented in the classroom in order to create an active and enjoyable learning atmosphere.

Keywords: Activities, meaning learning, positive responses, science students

Abstrak: Riset ini bertujuan mengukur keterlaksanaan pembelajaran pemaknaan, aktivitas dan respon siswa selama mereka terlibat dalam pembelajaran. Riset ini adalah tipe kuantitatif dengan jumlah subjek sebanyak 24 siswa. subjek tersebut adalah siswa salah satu SMP yang berada di Kecamatan Pinolosian, Kabupaten Bolaang Mongondow Selatan. Pengumpulan data menggunakan lembar observasi keterlaksanaan pembelajaran dengan 23 aspek, observasi aktivitas siswa sebanyak 6 aspek, dan angket respon siswa sebanyak 20 pertanyaan. Data dianalisis dengan menggunakan persentase dari setiap skor perolehan. Hasil riset menunjukkan bahwa keterlaksanaan pembelajaran adalah baik (3,50 – 4,00, aktivitas siswa siswa baik yang didominasi oleh carrying out literacy activities (reading books) to collect answers. Respon siswa adalah positif (91,87) dan negatif (8,13). Riset menyimpulkan bahwa pembelajaran pemaknaan terlaksana dengan baik, siswa menjadi aktif dan mereka merespon dengan baik pembelajaran yang telah dilaksanakan. Pembelajaran pemaknaan perlu diterapkan di dalam kelas agar menciptakan suasana belajar yang aktif dan menyenangkan.

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Kata kunci: Aktivitas, pembelajaran pemaknaan, respon positif, siswa sains

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INTRODUCTION

Education and strengthening national character require habituation. The habit is to do good (Iskandar & Sobarna, 2021, be honest (Cahyani & Hidayat, 2023), be ashamed of cheating (Mabrurroh & Ardianta, 2023), be ashamed of being lazy, and let the environment be dirty (Nusantari et al., 2020). Character is formed slowly but must be trained seriously and proportionally to achieve ideal shape and strength (Ahmad et al., 2021; Damopolii et al., 2024). Strengthening Character Education cannot be separated from the actualization of moral values that exist in the student environment or learning environment. However, what is happening in Indonesia is that the problem of juvenile delinquency is quite worrying for society. According to the Indonesian Child Protection Commission, from January to April 2019, there were 37 cases of violence at various levels of education. Another problem is that

teenagers often play with students. The number of students in Indonesia is increasing from year to year. In 2017, it was 12.9, rising to 14 percent in 2018 (Pohan et al., 2022)

The bad behavior that students generally do at school, such as fighting, bullying, truancy, and smoking, are some of the bad actions that are considered fatal for teachers. According to observations and data from the student affairs section at Pinolosian State Middle School, bullying behavior is the most prevalent type of student delinquency, with as many as 6-7 students bullying their friends in a given week. This is due to the need to improve the instillation of good morals and manners within educational activities where the teacher does not incorporate moral values into the subject matter. The phenomenon of increasing moral decadence also occurs in one of the schools in Surabaya, such as playing truant, leaving lessons, coming late, smoking, taking friends' money and cellphones, forging signatures, disrupting lessons, fighting, changing report cards, dating excessively, getting pregnant out of wedlock, and photographing a friend changing clothes in the bathroom, which was recorded (Pertiwiningrum et al., 2013).

Teaching good character, positive attitudes, and noble morals by adding special lessons to the curriculum only partially solves the problem. For this reason, there is a need for the integration of moral values in every subject because the teacher is no longer just a place to transfer knowledge but also a place to shape morals such as attitudes, behavior, character, and leadership (Prihantini & Khoirunnisa, 2023; Rokhman et al., 2014). This is in line with the directions given in the 2013 curriculum. Classroom learning activities must invite students to engage in positive activities (Afriani et al., 2022). Instilling character values in education is very important so that student behavior leads to good behavior (Yusuf & Kuswandi, 2023).

The 2013 curriculum provides direction that science learning must rely on students' activeness and they must gain real experience in the learning process (Damopolii et al., 2019; Nasir et al., 2020). Learning in the context of the 2013 Curriculum is oriented to produce Indonesian people who are productive, creative, innovative and affective through integrated attitudes (know why), skills (know how) and knowledge (know what) (Baransano et al., 2017; Purwati et al. al., 2019; Zannah et al., 2018). By integrating moral values into learning, students will be able to have good values such as respect, responsibility, honesty, caring, and help students to implement these values into their daily lives.

One of the learning models that is in accordance with the 2013 curriculum is the integration of moral values to improve students' morals, namely the meaning learning model (Gonibala et al., 2019; Pikoli et al., 2023). The meaning learning model is a learning model through examples and examples of the relationship between events, symptoms or phenomena that can potentially be used as a model in learning which aims to teach positive attitudes, noble morals and character in addition to the academic aspects (Sudiyono et al., 2015). Likewise, the learning tools used should contain these directions so that they can help students learn independently and develop themselves and can form good character and morals (García-Moriyón et al., 2020; Krettenauer, 2021; Walker, 2020). Meaning learning is learning that is suitable for science learning (Gonibala et al., 2019). Teaching scientific concepts while providing meaning in the form of moral values, namely the meaning learning model (Sartika, 2011). The meaning learning model is a learning model that is suitable for developing student character (Yuliani et al., 2012).

In a teaching and learning process, students' ability to understand a concept is greatly influenced by the teacher's ability, one of which is preparing varied learning tools. Varied learning tools are learning tools that can utilize learning resources available in the school environment and can be reached by teachers or students (Ahya et al., 2020; Damopolii et al., 2019). One learning resource that can be structured into a varied learning tool is moral values that are integrated with natural sciences as a model for teaching positive attitudes, noble morals and good manners (Pikoli et al., 2023).

Teacher creativity to create learning that motivates students to learn is very important (Nunaki et al., 2020; Sinambela et al., 2021; Yurida et al., 2021), especially in science teaching (Nasir et al., 2023; Sirait et al., 2022). In Natural Sciences, various symptoms and phenomena are very interesting and can potentially become models of moral attitudes. Teaching moral attitudes requires examples of how moral attitudes are carried out (Pikoli et al., 2023). Science concepts provide models students can imitate if teachers help students grasp the meaning. Internalization is carried out on certain symptoms and facts, linking them to moral attitudes in the Quran and Hadith. Thus, the implementation of meaning learning must be measurable. In addition, students' activities during learning must lead to activities that improve their character and do not make them passive. This research aims to measure the implementation of meaning learning, activities, and students' responses while they are involved in learning.

METHOD

This paper uses quantitative methods by analyzing student implementation and activities during learning. This research used 24 junior high school students in Pinolosian District, South Bolaang Mongondow Regency. They were taught science lessons during two meetings. The learning used is meaning learning adapted from (Ibrahim & Sukartiningsih, 2014). Learning implementation is measured using three aspects with 23 sub-aspects of observation. Syntax Applicability: (1) Orient students to the problem or question (Consists of four aspects); (2) Design a problem solving process and answer questions (consisting of three aspects); (3) Guiding the investigation (consisting of three aspects), (4) Communicate results (consisting of three aspects); (5) Negotiation and confirmation (consisting of two aspects), (6) Meaning (consisting of one aspect); (7) Evaluation and Reflection (consisting of two aspects). Class Situation: (1) Students' enthusiasm for learning both during discussions and individual activities, (2) Teacher-student interaction and communication, (3) Student-student interaction and communication, and (4) Learning process is student-centered. Time Management: Time according to allocation. Implementation measurements were assisted by two observers.

The student activity observation sheet in learning is used as a guide to observing student activities within the specified time limits. Student activities are observed by observers every 3 minutes during 3 x 40 minute learning (each meeting). Observed student activities include: (1) Pay attention and listen to the teacher's explanation; (2) Carrying out literacy activities (reading books) to collect answers; (3) Collaborate in solving questions in the student worksheet; (4) Present the results that have been worked on in the student worksheet; (5) Provide feedback or suggestions to other groups; and (6) Listen and participate actively. The student response questionnaire contains 20 questions related to the learning process.

The data obtained was analyzed. Analysis takes the form of calculating the percentage of each aspect of student activity and responses. Meanwhile, learning implementation has a score range of 1-4, and is then calculated by calculating the average gain.

RESULTS AND DISCUSSION

This research has succeeded in measuring the implementation of meaning learning, and students' activities and responses after they are involved in learning.

Table 1. Observation results of learning implementation

No	Activity	1 st Meeting		2 nd Meeting		\bar{x}
		O ₁	O ₂	O ₁	O ₂	
I	Syntax Applicability					
A	Orient students to the problem or question					
1	Conditioning students to study (saying greetings, checking student attendance, and praying)	4	4	4	4	4
2	Ask students questions to arouse curiosity	4	4	4	3	3.75
3	Provide information about the material to be studied	4	4	4	4	4
4	Communicate general learning objectives in the aspects of attitudes, knowledge and skills	4	4	3	4	3.75
	\bar{x}	4	4	3.75	3.75	3.88
B	Design a problem solving process and answer questions					
5	Divide students into several groups	4	4	4	4	4
6	Distribute student worksheets to each group	4	4	4	4	4
7	Directs students in formulating problems found in student worksheets	4	4	4	3	3.75
	\bar{x}	4	4	4	3.67	3.92
C	Guiding the investigation					
8	Monitoring student work	4	4	4	4	4
9	Guiding students in getting answers	4	4	3	4	3.75
10	Direct students to make conclusions	4	4	4	4	4
	\bar{x}	4	4	3.67	4	3.92
D	Communicate results					
11	Ask student representatives from each group to present the results they have obtained	4	4	4	4	4
12	Ask students from other groups to provide responses	4	4	4	4	4
13	Provide reinforcement for the results of the discussion	4	3	4	4	3.75
	\bar{x}	4	3.67	4	4	3.92
E	Negotiation and confirmation					
14	Guide students to discuss conclusions from the material as a whole	4	4	3	4	3.75
15	Give rewards (e.g. praise or other relevant forms of appreciation) to groups that perform well	4	3	4	4	3.75
	\bar{x}	4	3.5	3.5	4	3.75

F	Meaning					
16	Explain the meaning of concepts from the material that has been studied	4	4	4	4	4
G	Evaluation and Reflection					
17	Direct students to summarize learning by conducting questions and answers	4	4	4	4	4
18	Plan follow-up activities in the form of assignments, either individual assignments or group assignments	4	4	3	4	3.75
	\bar{x}	4	4	3.5	4	3.88
II	Class Situation					
19	Students' enthusiasm for learning both during discussions and individual activities	4	4	4	4	4
20	Teacher-student interaction and communication	4	4	4	4	4
21	Student-student interaction and communication	4	4	3	3	3.5
22	Learning process is student-centered	4	4	4	4	4
	\bar{x}	4	4	3.75	3.75	3.88
III	Time Management					
23	Time according to allocation (3x40 minutes)	4	4	4	3	3.75
	Total of \bar{x}	4	3.91	3.8	3.8	3.88

Note: O = Observer

The assessment of the practicality of learning tools is measured based on the results of the implementation of the lesson plan. Based on the results of the analysis of the average value of learning implementation which has been presented in Table 1, the research results show that in the aspect of syntax implementation, class atmosphere and time management it is classified as good with scores between 3.50 – 4.00. The implementation of the syntax shows that each phase of the syntax of the meaning learning model can be implemented at a very high category level. The implementation of meaning learning can be indicated by achieving a score obtained from observations in the good category (Sartika & Faizah, 2019). The implementation of learning that uses the syntax of the meaning learning model shows a good category (Sartika, 2011). Observation of learning implementation using meaning-oriented learning model tools shows a good category so that it can support learning activities (Yuliani et al., 2012).

In the meaning learning model, learning is focused on the roles and relationships between teachers and students, students and other students and the role of learning tools which have a big impact on students. Learning triggers being able to be active in every question, answer, response or other things given by the teacher or other students. These results indicate that learning has taken place according to the plan stated in the lesson plan. The implementation of good learning syntax is supported by the teacher's teaching patterns which are reflected in their behavior when carrying out teaching and obtaining good scores (Ibrahim et al., 2023). Other research also reveals that the feasibility of learning meets standards when obtaining a good score (Alik et al., 2023). An indication of the implementation of learning is that the teacher has followed the stages of meaning learning well and correctly.

Table 2. Student activities

No	Activity	1 st meet		2 nd meet	
		Total	%	Total	%
1	Pay attention and listen to the teacher's explanation	22	17.32	27	19.01
2	Carrying out literacy activities (reading books) to collect answers	30	23.62	37	26.06
3	Collaborate in solving questions in the student worksheet	22	17.32	26	18.31
4	Present the results that have been worked on in the student worksheet	12	9.45	13	9.15
5	Provide feedback or suggestions to other groups	13	10.24	9	6.34
6	Listen and participate actively	28	22.05	30	21.13
	Total	127	100	142	100

The results of the analysis of student activities during learning using the meaning learning model show that students already appear active in the learning process. This is based on each aspect for the percentage of student activities that meet the active learning criteria. The most dominant student activity is in the aspect of carrying out literacy activities (reading students' books) in collecting answers, namely with an average percentage for a limited scale at the first meeting of 23.62% and at the second meeting of 26.06%. These findings indicate that meaning learning can make students active in learning.

The high level of student activity during learning shows that they are active during the learning process and irrelevant behavior is reduced during learning (Sartika, 2011). In the research we have conducted, students were able to pay attention and listen more actively, read more actively, collaborate, present, and were able to provide feedback. Students who are active in learning show that they are interested in the learning carried out by their teacher (Baransano et al., 2017). Students' activities become better and more active because they consider that the learning carried out by their teacher is meaningful (Bravo et al., 2021), and even reduces anxiety (Cooper et al., 2018). Meaning learning has made students active. This learning has changed passive students to become more motivated to be involved during learning.

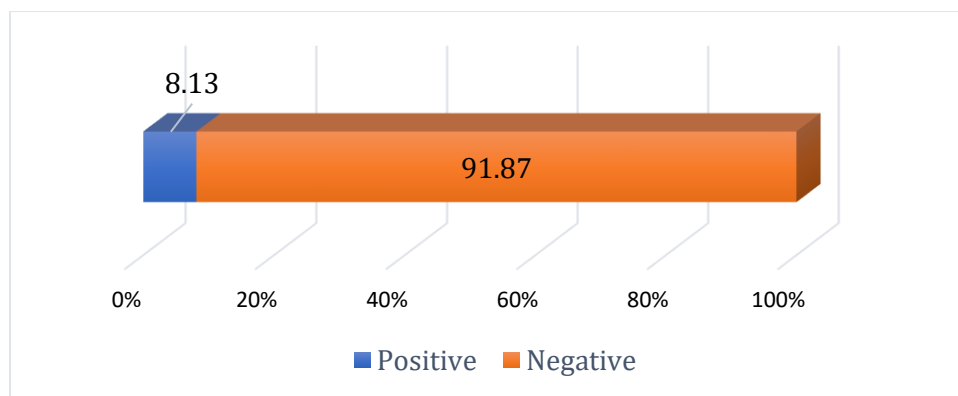


Fig. 1. Student responses to meaning learning

Based on the findings in Figure 1, students responded positively to the implementation of meaning learning. Positive responses indicate that students are interested in the learning being carried out. Learning that makes students interested will get a good response from them (Nunaki et al., 2023). The responses given by students based on the data in Figure 1 reveal that they are happy, interested, learning is a new model, easy to implement and every concept presented by the teacher is clear.

CONCLUSION

The research results show that the implementation of learning is good (3.50 – 4.00, and good student activities are dominated by carrying out literacy activities (reading books) to collect answers. Student responses are positive (91.87) and negative (8.13). This research concludes that learning meaning is carried out well, students become active, and they respond well to the learning that has been carried out. Meaning learning must be implemented in the classroom to create an active and enjoyable learning atmosphere.

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