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ANALYSIS OF TEACHERS' TEACHING PATTERNS BASED ON TRANSCRIPT BASED LESSON ANALYSES (TBLA) ON TEMPERATURE AND HEAT MATERIALS

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Abstract
This study is a study that aims to analyze the teacher's learning patterns in the classroom through transcript-based lesson analysis (TBLA)-based lesson study. There are 3 main stages in this research, which consist of planning (plan), implementation (do), and reflection (see) which are carried out in 2 cycles. The study was conducted in November 2020. The data collection in this study used learning video recordings, observation sheets, and documentation of other artifacts. In cycle 1, the results of the analysis of the pattern of teaching dialogue were dominated by exposition so that fewer discussions were formed. Cycle 2 lesson study is intended to improve learning in cycle 1 so that cycle 2 is carried out based on the results of the reflection of cycle 1. The results of the analysis of dialogue patterns in cycle 2 there is a pattern of teaching dialogue formed in learning consisting of pronunciation, exposition, and discussion so that the number of discussion engagements between teachers and students are more dominant and this result shows that a good teaching dialogue pattern will have a good impact on students' scientific attitudes. From the results of this study, it is suggested that teachers can apply lesson study based on transcript-based lesson analyses. The application of this technical analysis will enable teachers to improve their ability to make learning that will be implemented more effective.

Keywords: Transcript Based Lesson Analyzes, Teaching Dialogue Patterns, Lesson Study.

Introduction

The decline in the morality of the Indonesian nation is a form of the unattainability of the education process in Indonesia. Honest, thorough, curious, not prejudiced, responsible and self-disciplined are expectations that students want to have. However, this is increasingly difficult for us to find in students, whether in high school, junior high or elementary students. So it is necessary to form an attitude like in science learning, namely the formation of a scientific attitude that refers to the attitude that a scientist or investigator must have in conducting the research process (Tursinawati, 2013).

Basically good learning is carried out scientifically through various experiments, processes and products. Process is a procedure in solving a problem. Meanwhile, products are in the form of facts, principles, theories and laws. The more appropriate or appropriate the method, the media used by the teacher in teaching, the students want to know more so that their scientific attitude will increase. As stated by Abroscato in (Tursinwati, 2013) science includes aspects of attitude in addition to science as a product and process. Science as a process contains a scientific attitude which is a central factor in supporting the development of science.

Efforts to increase students' abilities are not only in the cognitive aspect, but also factors supporting scientific attitudes (Harjono, et al, 2015). In line with that, Natalia, et al (2010) stated that the intended learning objectives cannot be fully achieved if the teacher only uses a monotonous learning model and only uses textbooks which generally tend to contain information on the field of study and are not well organized. The low quality of textbooks with conventional learning will result in low scientific attitudes. By paying

attention to the existing conditions, teachers are required to make the latest innovations in the teaching and learning process. The chosen innovation should be able to actively involve students so that it can be applied to improve students' scientific attitudes. Based on the above conditions, it is necessary to make an improvement in the learning process. One of them is by applying learning studies or better known as lesson study in the learning process in the classroom.

Lesson study appears as one of the alternatives to overcome the problem of learning practices that have been seen as less effective. In order for the quality of lesson study learning to increase as we expected, we need to conduct an in-depth analysis of learning through observation and recording, make learning transcripts and analyze them. The method of analysis of learning transcripts is known as the Transcript Based Lesson Analyzes (TBLA) method .

Lesson study is an approach to improving learning that originally came from Japan. Lesson study provides a process for collaborating and designing lessons and evaluating strategic success. According to Manrulu & Sari (2015) lesson study is defined as a class-based teaching strategy for the teaching profession through collaborative learning assessments that are carried out collaboratively which are carried out continuously based on the principles of collegiality and mutual learning to build a learning community.

Lesson study is one of the coaching efforts to improve the learning process carried out by a group of teachers or lecturers collaboratively and continuously, in planning, implementing, observing and reporting learning outcomes. Lesson study is a concrete step to form a learning community (learning society). Through lesson study activities we can improve our abilities as professional teachers in fulfilling the rights of students to learn and improving the quality of students.

Based on research by Febriyanti (2013) stated that in a simpler way, the lesson study cycle is carried out through a series of activities: Planing-Doing-Seeing (Plan-Do-See). The process of applying lesson study is the same at any level. Lewis in Abizar (2017) explains 6 stages of Lesson study. The stages of lesson study according to Lewis are as follows:

1. Forming a lesson study group which includes activities to recruit group members, arrange a special time, arrange a meeting schedule, and agree on group rules.
2. Focusing lesson study on the main activity. First, agree on a research theme for long-term goals for students. Second, choose the scope of the material. Third, choose learning units and agreed objectives.
3. Plan lesson plans. This includes activities to review existing learning, develop learning instructions, and ask for input from outside experts in the field of study, whether they are lecturers or other experienced teachers.
4. Carry out learning in class by observing it (observation). In this case, the learning is carried out by one of the group member teachers while the other members become observers. What the observer does is only observe so that it is not allowed to provide an introduction to the course of learning, both to teachers and students.
5. Discuss and analyze the lessons that have been implemented. Discussion and analysis should include reflections by the instructor, background information on group members, presentations, and discussion of learning observation data, general discussions, comments from outside experts, and thanks.
6. Reflect on learning and plan for the next steps. At this stage, group members are expected to think about the next steps to take.

Lesson Study Based on Transcript Based Lesson Analyzes (TBLA), One of the developments in the practice of lesson study was the Lesson Study for Learning Community (LSLC) in the 1990s. LSLC views school and classroom as a social environment. This means that each member (teacher-parents, teacher-education experts, teacher-students, students-students) has concern, learns from each other, listens and interacts. All activities can develop learning in the focus of the LSLC. The formation of a learning community that allows mutual learning relationships, dialogue, making learning designs, observations, reflections, and re-designs that are carried out together in LSLC. LSLC can be done with several models, one of which is Transcript Based Lesson Analyzes (TBLA).

The TBLA model provides analysis for learning input through transcripts of learning dialogues. The learning analysis system that was developed focuses on student responses during classroom learning, which reflects how classroom teaching practices and the level of student involvement are. This model allows the analysis to focus on communication between teachers and students. Through this TBLA-based Lesson Study Activity, we can find out how students learn and think and how we facilitate so that students learn optimally. In order for the quality of Lesson Study to increase as we expected, we need to conduct an in-depth analysis of learning through observation and recording, make learning transcripts and analyze them. The analysis model for learning transcripts is known as the Transcript Based Lesson Analyzes (TBLA) model.

Method

The type of research in this study is a case study, this is done by involving researchers in the application of lesson study as a case for learning. The idea is to view lesson study as a phenomenon and to look for subjects to which the phenomenon is applied. The data sources in this study were all seventh-grade students of SMP IT AN-NAHL JAMBI.

In this study, qualitative data collection will be carried out. Qualitative data was obtained from observing the act of learning by observers. Qualitative aspects in the form of data from observations, interviews, document or archive studies guided by observation sheets and questionnaires that describe the learning process in the classroom. In this case, the learning action is based on lesson study. Furthermore, the results of the observations will be discussed in the reflection activity and to be a reference in improving the results of the next cycle of activities. The type of observation used is participant observation, namely observations made by observers, but in this case the observer enters and follows the group activities being observed. Thus, the observer can appreciate and feel what the people in the observed group feel. This study also included data collection through video recordings, voice recordings, and photos that were documented during the learning activities in order to obtain more varied and more accurate data.

This research was carried out in several cycles of lesson study activities consisting of cycles I and II. But if you don't get the desired results, the activity can be added until you get the desired results, but if you get the desired results before activity II, you can stop until activity II only. In this study, researchers collaborated with seventh grade teachers at SMP IT AN-NAHL Percikan Iman Jambi. And researchers participated in every teaching and learning activity that took place to observe the course of the learning process.

Results and Discussion

Analysis of students' scientific attitudes based on transcript based lesson analyzes (TBLA) which was carried out in class VII NBK SMP IT An-Nahl Percikan Iman Jambi on November 9, 2020 and November 16, 2020 through 2 research cycles and each cycle was carried out with 3 stages, namely planning (planning).) , implementation (do), and reflection (see). At the planning stage (plan) the researcher prepares learning tools ranging from learning materials, learning designs, to student worksheets which are then discussed with the supervisor, class teachers, and observers so that the next stage goes well.

During the COVID-19 pandemic, the learning process was not carried out in the classroom, but was carried out virtually through the Zoom Cloud Meeting application so that researchers used similar applications during the study. Furthermore, at the implementation stage (do), researchers who act directly as model teachers carry out virtual learning through Zoom Meetings with students and observers who are members of the learning process can observe and assess students' scientific attitudes during the learning process. In the reflection stage (see), the researcher discussed with the observers about the learning activities that had been carried out. Observers who observe students convey findings that occur during learning. The results of the discussion at this stage became a reference for improvement in the second cycle. Furthermore, in the second cycle, the learning activities carried out were an improvement from the learning activities in cycle 1.

During the learning process, all student and teacher activities are recorded directly via zoom recording. Then the video recordings were transcribed through transcript-based lesson analysis (TBLA) -based learning analysis. Learning dialogues are analyzed and interpreted in the form of patterns based on the categorization of teaching dialogues. According to Davies (2017) in Hajar 2019, dialogic teaching is categorized as follows:

1. Memorization : Real drilling, ideas and routines through constant repetition
2. Pronunciation : Accumulation of knowledge and understanding through questions designed to test or stimulate memory of what has been encountered previously, or to signal students to seek answers from clues given in questions.
3. Exposition: telling students what to do and or conveying information and or explaining the principles of facts and or explaining facts, principles, or procedures.
4. Discussion: exchange of ideas with the view of sharing information and solving problems.

During the core activity of cycle 1, the teacher's instructional dialogue was more on the categories of memorization and exposition. This means that in the implementation of students only repeat and memorize the concepts of the material given by the teacher. So that the learning atmosphere is still somewhat less conducive as many students are just silent and do not want to participate in learning. This can be seen in the

transcripts of student dialogues where there are only 10 student responses who answered the teacher's questions with short answers during learning which can be seen in the table 1 below.

Table 1. Transcript of student dialogue at the 1st meeting

T/S	Index	Dialogue
S	2	Wa'alaikumsalam wr.wb
S	4	alhamdulillah, amazing, Allah huakbar
S	7	yes, I ready late she together
S	8	auzubillahhiminassato nirrojim, bismillahhirrohman nirrohin.
S	13	already ustazah…
S	16	yes ustazah…
S	18	yes ustazah…
S	21	yes ustazah…
S	24	no ustazah...
S	26	Not yet ustazah…
S	39	waalaikumsalam warahmatullah hiwabarakatu

Furthermore, the implementation of the second cycle of learning showed that there was an increase in the number of teacher dialogues in the form of pronunciation, exposition and discussion. this can be seen in the transcripts of student dialogue which reached 27 student responses with various variations of answers. These results indicate that the learning dialogue that is formed is more towards discussion and exposition. The following is a transcript of student dialogue which can be seen in the table 2 below.

Table 2. Transcript of student dialogue for the 2nd meeting

T/S	Index	Dialogue
S	2	Wa'alaikumsalam wr. wb
S	4	alhamdulillah, amazing, Allah huakbar
S	5	don't know ustazah
S	7	waalaikumsalam warahmatullah hiwabarakatu
S	9	alhamdulillah, amazing, Allah huakbar
S	13	already ustazah…
S	16	hot water
S	20	Ice
S	23	melt...
S	25	because it is silenced
S	27	hot water
S	29	do not know
S	38	there is a bubble, it evaporates
S	45	T2...
S	47	not yet ustazah
S	49	insyAllah ustazah

S	53	iron, copper
S	55	Cloth
S	57	Wood
S	58	paper
S	61	for sending bad
S	71	because zinc absorbs heat
S	73	From iron
S	75	from the ground
S	78	already ustazah…
S	80	already, already ustazah…
S	82	waalaikumsalam warahmatullah hiwabarakatu

The results of the analysis of dialogic learning using transcript-based learning analysis in the implementation of transcript-based learning in the implementation of the first learning and the implementation of the second learning in this study are illustrated through the pattern of Figure 1 and Figure 2.

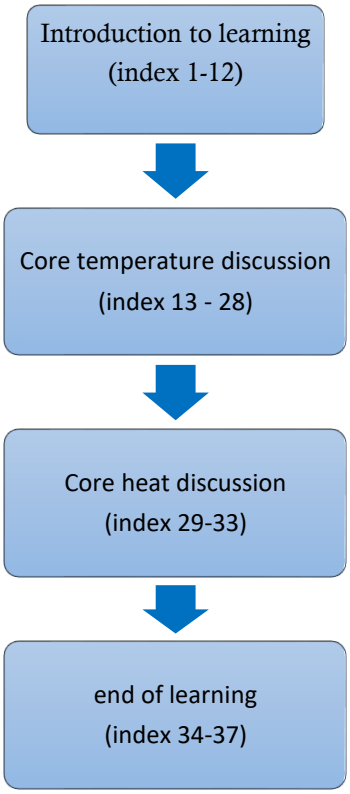

Figure 1 Dialogue teaching pattern in cycle 1

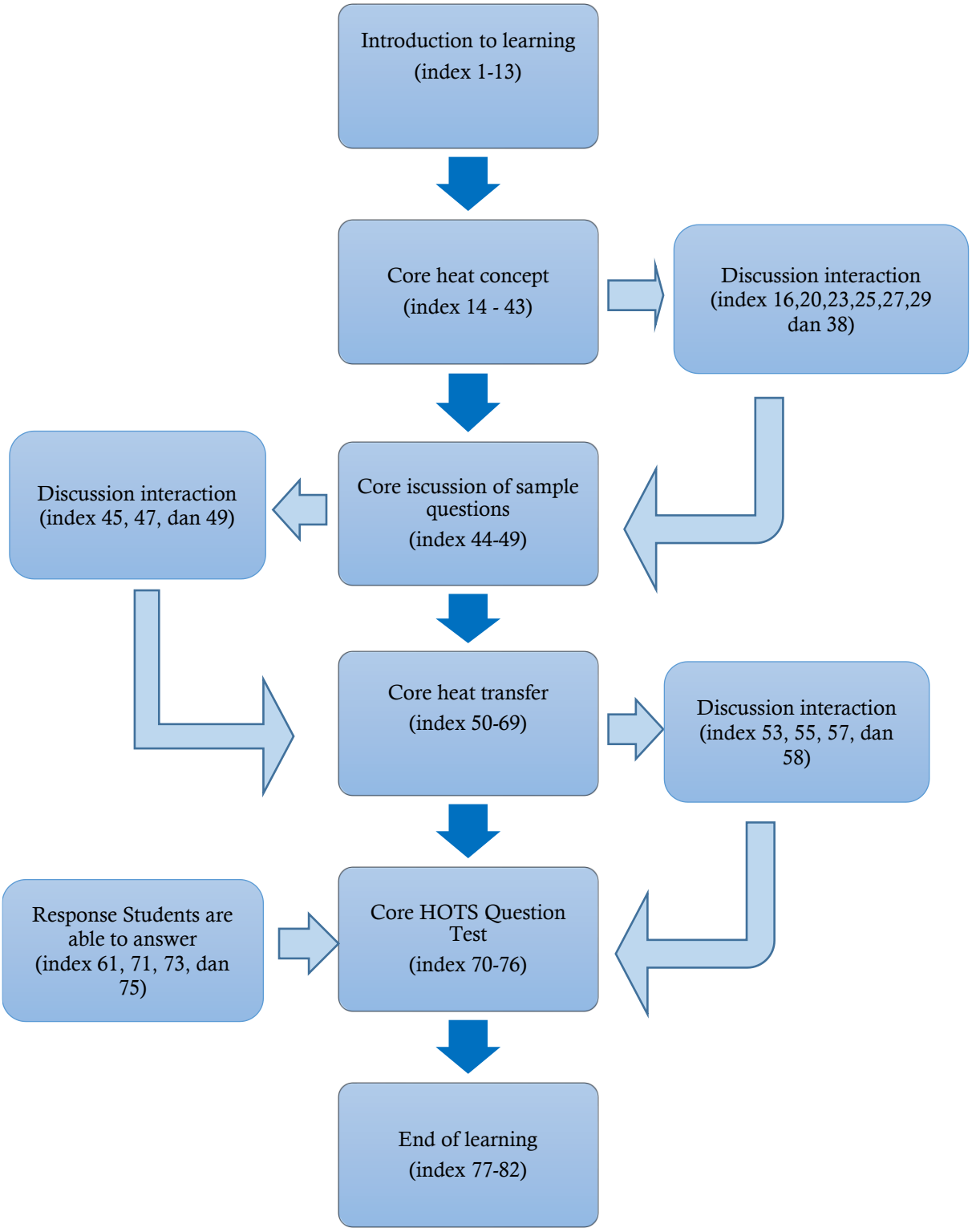

Figure 2. Dialogue teaching pattern in cycle 2

Based on the dialogue pattern of the first and second cycles, there are differences in the implementation of the core discussion of the first and second cycles. In the first implementation the teaching dialogue pattern was dominated by the explanation of the teacher's exposition of the material. In the first implementation, fewer discussions were formed than in the second implementation. More explanations were given by the teacher than by asking questions to start a discussion about the material in the implementation of this first

cycle. It is different from the implementation of the second cycle of learning. In this cycle, there is a pattern of teaching dialogue that is formed in learning which consists of pronunciation, exposition, and discussion of the learning material. Questions that trigger discussion during learning are given by the teacher in the implementation of the second cycle. The number of discussion engagements between teachers and students was more dominant in the implementation of the second cycle. From the results of the analysis of the analysis of the dialogue patterns of the first cycle and the second cycle, there is a gradual increase in the scientific attitude of students.

Conclusion

Lesson study learning on temperature and heat material can be said to be going well, according to the stages in lesson study, namely planning (plan), implementation (do), and reflection (see). From the first cycle, problems were found during the learning process, which were then fixed in the second cycle. So, it can be concluded that lesson study can improve problems in the learning process, because by implementing lesson study model teachers can collaborate in planning, implementing, and reflecting on learning so as to make learning more effective.

The dialogue pattern formed from the results of the analysis of learning transcripts in the second cycle is better than the first cycle. It can be seen from Figure 4.12 that the dialogue pattern is dominated by exposition so that there are fewer discussions that are formed and it can be seen from the tendency of passive students in the first cycle of learning but in the second cycle of learning students seem more active in learning. This can be seen from Figure 4.13 there is a dialogue pattern formed consisting of pronunciation, exposition, and discussion so that these results indicate that a good learning dialogue pattern will have a good impact on students' scientific attitudes.

From the research results that have been obtained, the researchers put forward the following suggestions, Analysis using TBLA (Transcript Based Lesson Analyzes) in this study provides a number of valid facts in the form of speech patterns between teachers and students during learning. The analytical techniques in this study can be used as a reference for teachers to use similar analytical techniques in the classroom. The application of this technical analysis will enable teachers to improve their ability to make learning that will be implemented more effective.

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