

Analysis of Teacher Questions in Improving High Order Thinking Skills of Students Through Learning of Pancasila and Civic Education

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Abstract—This article aims to expressing the ability to ask teachers the questions of Pancasila and Civic Education in the learning process. This research was conducted at five high schools in the city of Padang involving eleven (11) teachers as research informants. This article is a Research and Development (R & D) study with a Qualitative and Quantitative Approach. Data were collected through observation, interview and documentation techniques which were analyzed using a qualitative approach. The results showed that the type, level, and form of teacher questions

were influenced by the material, classroom conditions and learning time so that it was found that the ability to ask teachers in the learning process was not optimal. This is because the questions asked by teachers are still at the highest level of C-3, namely application so that they have not been able to develop students' high-order thinking skills.

Keywords—Teacher Questions, Learning, Highorder Thinking Skills, Pancasila and Civic Education, Students

I. INTRODUCTION

Teaching and learning activities always involve two active actors, namely teachers and students. The teacher as a teacher is the creator of student learning conditions that are designed in a planned, systematic, and continuous way. While students as subjects of learning are those who enjoy the conditions of learning created by the teacher. So, in this case, a teacher must have a variety of skills one of which is questioning skills. Teacher skills in asking a variety of quality questions in the learning process can improve students' high-order thinking skills[1].

Teachers can guide and train students in critical thinking that can be done by asking

various questions. These questions are well-structured questions with appropriate questioning techniques. These questions provide guidance and motivation for students to develop their thinking skills and are actively involved in learning. The questions in teaching useful to stimulate student ideas, for example in terms of provoking ideas/ideas in solving problems. These questions relate to the types of questions asked by the teacher[2].

However, in reality, the teacher's ability to ask teacher questions to develop students' high-level thinking skills is still low. Not all teachers were able to ask questions that could improve students' critical thinking skills, especially for

young teachers who tended to ask questions that were only on the surface stage. Types of questions asked by teachers are dominated by low-level cognitive questions and teacher questioning techniques that have not been effective [3]. The ability of teachers to ask quality questions can train students to develop and improve high-order thinking skills in learning, especially learning of Pancasila and Civic Education.

Developing and improving students' high-order thinking skills through learning of Pancasila and Civic Education needs to be done. This is done so that students become citizens who can analyze various issues critically to make solutive decisions in their lives. Because the ability to think at a high level includes the ability to solve problems, the ability to think creatively, think critically, the ability to reason, and the ability to make decisions. Also, through analysis and evaluation of various citizenship issues that exist, helping students to find solutions to existing problems. Besides that, the ability to think analytically can also activate the values that become a moral foundation for someone. High-order thinking skills are a process of thinking of students in a high cognitive level developed from various cognitive concepts and methods and learning taxonomies such as the problem-solving method, bloom taxonomy, Anderson and Kratwohal, and learning taxonomy, teaching, and assessment [4].

The questions of high-order thinking skills are questions that ask students to conclude, hypothesize, analyze, apply, synthesize, evaluate, compare, contrast or imagine, showing high order answers skills.

The ability to formulate and ask quality questions to students is a skill that must be possessed by the teacher. Effective teachers ask students more questions to direct and motivate students to develop their thinking skills and make students actively involved in learning.

Problems related to teacher questions in this study relate to the quality of questions asked by teachers to students. Quality, in this case, can be reviewed from how often the teacher asks questions during the learning process, the ability

of teachers to formulate high-level questions to and the procedures taken by the teacher in asking questions to students. So, teachers should use good and effective questions to improve students' high-order thinking skills. Good and effective teacher questions can inspire students to give good and correct answers. One characteristic of effective questions is the nature or leads to open-ended questions. Open-ended questions are questions that require students to develop ways to understand questions and ways to answer questions [5]. So, to answer high order questions is needed high logical thinking, high logical thinking is needed by students in the learning process in class, especially in answering questions, because students need to use their knowledge, understanding, and skills and connect them to in a new situation

High-order thinking skills is an ability that every citizen needs to have in order to be able to analyze a variety of existing issues and be able to make the right decisions in life. Based on the existing problems, this article will reveal the ability to ask questions of teachers of Pancasila and Civic Education in the learning process in terms of the types of questions asked by teachers in improving students' high-order thinking skills.

II. METHOD

This article is the result of Research and Development (R & D) research with a Qualitative and Quantitative Approach. Development research has been commonly used in educational science specially to build models that will link existing theories with practice occurring in the field. The study was conducted at 5 (five) high schools in Padang, namely; SMAN 10, 1, 8, 7, 16 Padang with a sample of 11 (eleven) teachers of Pancasila and Civic Education class X-XII. Data were collected through interview techniques, documentation and direct observation in class with natural settings to see firsthand how the teacher teaches, each teacher was observed three times. The data in this study are in the form of teacher questions in terms of intensity, type, material, classroom conditions and learning time. Analysis of qualitative data is inductive, which is an analysis based on the data obtained, then developed certain patterns of relationships or become hypotheses. From the results of the first, second

and third observations of each teacher, then triangulation was conducted. whereas quantitative data were analyzed with statistical techniques including 1) Item Analysis, 2) Validity Analysis, 3) Practicality Analysis and, 4) Effectiveness Analysis[6][7].

III. RESULTS AND DISCUSSION

The main data in this study are questions raised by teachers during the learning process of Pancasila and Civic Education. Based on the results of the mapping of teacher questions in terms of the intensity of the questions asked by the teacher to students 204 times for 11 classes with 32 meetings. Then the average teacher asks questions for each meeting is 18 questions. The questions were asked by the teacher in the learning process of Pancasila and Civic Education.

In general, teacher questions in the learning process function as follows:

1. To find out students' initial understanding of the topic to be studied. This is because the success of students in learning is also determined by students' initial knowledge.
2. To increase student motivation in learning. Quality and effective questions will be able to engage students and challenge them to think and confront them with problems.
3. To direct students in learning. Effective teacher questions can help students to connect several existing ideas and integrate them with the understanding they already have so that students can determine the direction of their learning in order to achieve the desired goals[8].

Furthermore, the findings indicate that the types of teacher questions are classified in factual, conceptual, procedural and meta cognitive forms to find teacher questions that encourage students' higher-order thinking skills. In the cognitive realm, the level of questions can be in the form of remembering, understanding, applying, analyzing, evaluating, to creating. In other words, to access student learning in the simplest category of cognitive processes, the teacher provides questions. When implementing a learning teacher can ask several questions with several goals, one question for several goals at

once. Or some questions can be asked for a specific purpose. Because effective teacher questions aim to stimulate students' thinking and help them build scientific knowledge[9]. Then, based on the results of the study the types of teacher questions that arise in the learning of Pancasila and Civic Education can be classified as follows:

Table 1. Types of Teacher Questions

No	Type of Question	Total
1	Factual	72
2	Conceptual	131
3	Procedural	1
4	Metakognitif.	
Total		204

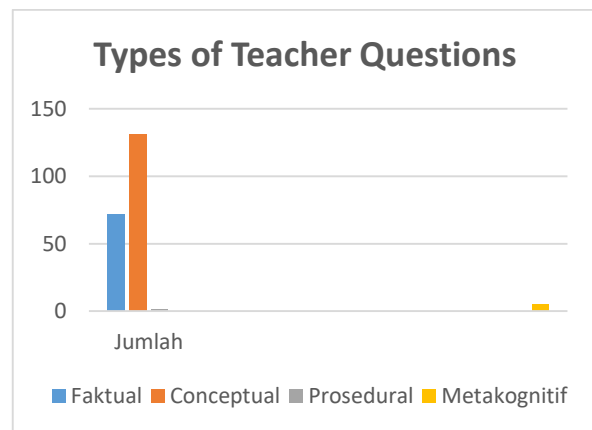


Figure 1. Types of Teacher Questions

Based on the table and diagram above, the types of teacher questions tend to be conceptually followed by the types of factual questions. The table also informs that the teacher asks a type of procedural questions from the 204 teacher questions that arise in the learning process. Teacher questions with metacognitive types are not or do not exist submitted by the teacher. Then, only a teacher question with the type of procedural. The research findings also show that procedural type questions are closely related to scientific work skills but have not received attention in the Pancasila and Civic Education subjects.

The ability to ask good teachers can be observed from the level of questions asked by teachers in the learning process of Pancasila and Civic Education. Based on the research findings in the data related to the level of teacher questions grouped based on 6 (six) levels

consisting of; C1-Knowledge, C2-Understanding, C3-Application, C4-Analysis, C5-Evaluation, C6-Creating. From the results of the study, it was found that the level of teacher questions was at the C3 level. As revealed in the following table:

Table 2. Level of Teacher Questions

No	Level of Teacher Questions	Total
1	C1	59
2	C2	43
3	C3	81
4	C4	21
5	C5	0
6	C6	0

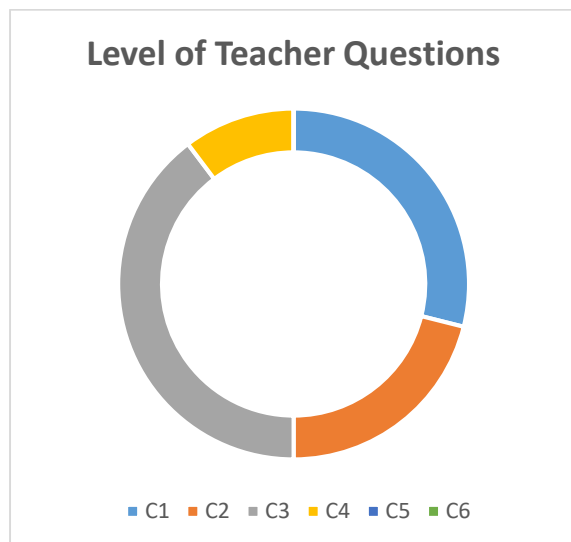


Figure 2. Levels of Teacher Questions

The table and figure above show that the teacher questions based on their level tend to be at level C3 with 81 questions followed by C1 with 59 levels, C2 with 43 questions and C4 with 21 questions. While at the C5 and C6 levels none of the levels of this question we're asked by the teacher in the learning of the Pancasila and Civic Education observed. The six levels of thinking ability mentioned above, then the first three levels are the ability to think with low-level categories, while the second three levels are categorized as thinking abilities at a high-level category. Brookhart identified three categories of ability to think at a high level. First, the ability to think at a high level in terms of transfer,

second in the sense of critical thinking and third in the sense of problem solving.

Analysis of the findings of the research results illustrates that high-order thinking skills is a process of deep and broad thinking skills that involves processing information critically and creatively in facing and solving complex problems and involving the skills of analyzing, evaluating and creating. High-order thinking skills consist of two aspects, namely critical and creative.

The above findings show that the quality of learning process activities is determined by the ability of teachers to use questions as one of the strategies to achieve learning objectives. Questions raised can be seen from the intention that consists of question requests, rhetorical questions, questions directing or guiding, and probing questions. In addition, there are also questions seen from the level of difficulty of the answers that are expected to consist of low-order questions and high-order questions, such as knowledge questions, understanding questions, applicative questions, analysis questions, synthesis questions, and evaluation questions [10]

Based on these observations, the teacher did not ask synthesis and evaluation questions at all. This shows that teachers ask more questions at a low level of cognitive level than a high level of cognitive level. When viewed from the distribution, the teacher's question is focused on two levels of low thinking, namely knowledge, and understanding. This shows that teachers are less able to use questions to develop students' critical and creative thinking skills in problem-solving. The questions raised by teachers in the learning process tended to be at a level of understanding (C-2) and had not been able to improve students' high-order thinking skills.

The research findings also show that there are three ways in which teachers ask questions in learning of Pancasila and Civic Education, namely:

- Ask questions freely in class and appoint students who raise their hands voluntarily.
- Appoint students who do not raise their hands (point students randomly) or take turns with questions asked by the teacher

with a conceptual type followed by a varied level of C1-C3.

- Appoint students before asking questions. Example: "Anggi try to mention the types of human rights". Spreading teacher questions in this way tends to be done by the teacher after giving the task of reading or answering the exercises in the Student Worksheet.

The various ways in which teachers pose questions are in line with those presented by Schmitt and Lahroodi which require two things that arouse curiosity, namely one's attention to be interested in a topic and the desire to know the topic. Therefore, teachers need to have the skills to hold variations and apply them in every learning process [11].

In this case, the questioning skill is very useful for every individual to have. Asking questions is one of the activities used every day. A good teacher will instill their knowledge to students so that they are good at interacting, one of them is by asking questions. Asking questions will also arouse interest, develop thinking patterns, active learning and students' curiosity about the problem being discussed [12].

Asking questions is one of the verbal utterances asking for a response from someone who is known, the response given can be in the form of knowledge to things such as effective stimulation that encourages thinking skills [13]. The research findings also indicate that in the teaching and learning process the interaction patterns of questions raised occur between the teacher and students and between students and teachers. Questions asked by teachers are usually done at the beginning, core activities, and end learning activities.

High-order thinking skills can be activated if a person is faced with a problem that he does not or does not know. This is because the ability to think is a process of skills that can be trained. One way is needed questions at the high-order thinking skills.

IV. CONCLUSIONS

One method that can be used in learning of Pancasila and Civic Education is to do a quick question and answer that is guided by the

teacher. This method is used with the intent to assess the extent to which students master the content of the lesson. Therefore, teachers must equip themselves with a series of logical and systematic questions that can improve students' high-order thinking skills. The questions asked by the teacher must be at a higher cognitive level, those are questions that contain a cognitive level of analysis, synthesis, and evaluation. Questions that are at these three cognitive levels can make students think critically, creatively and innovatively in developing their reasoning power. However, research findings indicate that teacher questions that arise on average are in the type of conceptual questions, with convergent questions. While the average level of new questions is at the C3 level, which is the application. The low ability to ask teachers of Pancasila and Civic Education in the learning process is characterized by the number of questions that are dominated by low-level cognitive questions and technique of teacher questions that are less effective. It also shows that teachers are less able to use questions to develop students' high-level thinking skills in learning of Pancasila and Civic Education.

ACKNOWLEDGMENTS

This research can be successfully carried out with the support and contributions of various parties. Therefore the researchers wish to thank the Education Office of West Sumatra Province, the Teacher Subject Meeting of Pancasila and Civic Education SMA in Padang, Teachers of Pancasila and Civic Education in SMAN 1 Padang, Teachers of Pancasila and Civic Education in SMAN 10 Padang, Teachers of Pancasila and Civic Education in SMAN 7 Padang, Teachers of Pancasila and Civic Education in SMAN 8 Padang, Teachers of Pancasila and Civic Education in SMAN 16 Padang.

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