

Cognitive Ability of Students in the Learning Process of Christian Religious Education Using a Scientific Approach at Budi Murni 2 Medan Catholic Private Senior High School

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ABSTRACT

This study aims to answer research questions regarding cognitive ability of students in the learning process of christian religious education using a scientific approach at Budi Murni 2 Medan Catholic Private Senior High School. This study uses a descriptive qualitative approach. The research is carried out at Budi Murni 2 Medan Catholic Private Senior High School from February to April 2023. The informants identified in this study are 11 informants consisting of catholic religious education teachers, vice principals, and students. Data analysis is performed by reducing data, presenting data, and drawing research conclusions. The results of the study show that the process of learning catholic religious education using a scientific approach supports the liveliness of learning activities. The school provides study and learning facilities, such as laptops, projectors, catholic religious education books, and manners for students. The cognitive abilities of students in the learning process of learning catholic religious at Budi Murni 2 Medan Catholic Private Senior High School have been known to have cognitive skills in each student in learning which has begun to increase

INTRODUCTION

The learning approach is the perspective or point of view that is applied in the learning process. A scientific or scientific approach is a work approach that is in accordance with scientific criteria. The 2013 curriculum encourages the use of a science-based approach in learning activities. The scientific approach is believed to be an important foundation for the development of students' attitudes, skills and knowledge. The scientific approach in learning trains students to have a good mindset, be creative and build a scientific or scientific plan or step. Thus, the learning process becomes more important than learning outcomes. This approach is an alternative or an approach that makes it easier for educators to get closer while at the same time encouraging students to think scientifically about learning. By applying this scientific approach, it is hoped that the cognitive abilities of students will think more critically and actively participate in each learning process. Cognitive ability is a very important aspect in learning. Wina (2017) suggests that cognitive abilities refer to developments that enable individuals to understand and interpret knowledge from experience and information obtained. Cognitive abilities of students include the ability to store knowledge and information and develop intellectual skills. The importance of cognitive abilities for students is to enable students to link knowledge with a wider context, so that it can function in social interaction, students' abilities are influenced by the learning environment and teaching rules applied by educators. In addition, in a learning process that supports students' cognitive abilities, a scientific approach is the right approach to develop these abilities. The use of approaches in the learning process is an effective strategy to achieve students' understanding and reasoning of learning material. Learning occurs when students can participate in learning by studying and working hard to complete and solve tasks that have not been mastered. However, the tasks given must be according to the abilities and knowledge of each student.

The learning environment and teaching methods are influenced by the learning approach adopted. It is undeniable that in applying the learning approach many problems are experienced by teachers and students, for example, the example illustrates the teacher's challenges in implementing scientific practice (Malangke et al., 2020).

LITERATURE REVIEW

Magdalena et al. (2020) argued that the problems of applying the scientific approach at Palasari 3 Public Elementary School, related to changing the curriculum from the education unit level curriculum to the 2013 curriculum, had a significant impact on educators in the learning process. The use of the new 2013 curriculum raises many challenges for educators in carrying out learning.

Catholic religious education is teaching about the Catholic faith that lives, develops, and is manifested in the life of every Catholic, based on the teachings and way of life of Jesus Christ.

Catholic religious learning also aims to shape the personality of Catholics so that they always draw their lives closer to God and the Kingdom of God, with the aim of achieving happiness and safety. Therefore, learning Catholic religion in schools through teaching, training, guidance, and assessment is very

important to develop competence in aspects such as cognitive (Batu and Sihotang, 2022). So educators are expected to be able to apply a scientific approach in learning. Educators need to facilitate students and emphasize a scientific approach that encourages students to think scientifically and actively participate in the learning process.

This study aims to answer research questions regarding cognitive ability of students in the learning process of christian religious education using a scientific approach at Budi Murni 2 Medan Catholic Private Senior High School.

METHODOLOGY

This study uses a descriptive qualitative approach. The researcher presents the results of the data or object of study in narrative form. Narrative form refers to an expository or descriptive writing approach that discloses details of an act, event or phenomenon. It tells a story meant to lead the reader to an important conclusion or meaningful realization or life lesson (Sugiyono, 2019). This research is related to cognitive ability theory used in Bloom, Karthwol, and Anderson's taxonomy theory. Cognitive ability is intellectual abilities that are simple to complex, which are high level abilities that can be achieved if the lowest level has been reached (Syarifah et al., 2020).

The research is carried out at Budi Murni 2 Medan Catholic Private Senior High School from February to April 2023. The research subjects are selected by purposive sampling. The informants identified in this study are 11 informants consisting of catholic religious education teachers, vice principals, and students. Data analysis is performed by reducing data, presenting data, and drawing research conclusions. Data analysis is carried out in stages starting from data transcripts, data identification, data classification, data interpretation as well as describing the data so as to produce conclusions from each research object.

RESULTS AND DISCUSSION

Cognitive Ability of Students in the Learning Process of Christian Religious Education Using a Scientific Approach at Budi Murni 2 Medan Catholic Private Senior High School

The results of the study show that the process of learning catholic religious education using a scientific approach supports the liveliness of learning activities. The school provides study and learning facilities, such as laptops, projectors, catholic religious education books, and manners for students.

a. Observing

What is expected from this observing activity or activity is that students gain factual knowledge, as well as experience, and a series of information that has not been recognized. In order for observing activities to take place properly, educators must find phenomena to be observed in learning from the start (Wina et al., 2017). This activity is a finding put forward by informants I3 and I4, Catholic religious education teachers usually conduct learning using the 5M method, with a focus on students to see and listen to learning material, as conveyed by informant I3: "Focusing on hearing and sight in learning so that the material presented can be understood. Informant I4 in the interview said: "By seeing, hearing, reading, and listening carefully and with concentration, the

learning material provided can be understood and understood." Opinions I3 and I4 are supported by informants I5, I6, I8, I10, and I11. The facilities provided by the school to students in the learning process begin when the teacher invites students to mention the title of the learning topic or sub-chapter, then students observe, read, listen and pay attention to relevant learning.

b. Asking

Asking activity is one of the educator's activities to encourage students when asking questions or formulating problems. In the questioning stage, activities and learning activities that can be developed by students include arousing curiosity, as well as the ability to formulate specific questions and originate from inspiring students to think critically (Wardani and Susilowibowo, 2021). As stated by the informants: Informants I1 and I3 in the interview said: "By repeating and reviewing the material if it has not been discussed thoroughly, as well as providing quizzes or challenges related to students' understanding of the material that has been taught, so that students are brave enough to ask." Opinions I1 and I3 are supported by I5 and I6.

c. Gathering Information

Finding the truth of the hypothesis is an activity carried out by students in the learning process to find a solution to a problem or explain the process of something happening. Budi Murni 2 Medan Catholic Private Senior High School provides facilities for each student in class X2 to collect supporting information. Hasana et al. (2020), in the stage of gathering information or finding the truth of the hypothesis, the activities carried out by educators are trying to solve problems about how the process of something happening. Discussion activities are carried out so that data is complete according to the learning material. Informants I2 and I3 are in line with the information obtained, which said that: "Students' reading patterns are quite good. Each student is trained to look for sources of knowledge through digital reading materials. This is a new tool to increase students' interest in learning because they are not only rely on printed books as the only source of knowledge". The opinions of I2 and I3 are supported by informants I4, I7, I8, I10, and I11.

d. Associating

The stage concludes the learning material delivered by educators, and is also one of the activities for students in finding or detecting the linkage of one piece of information with other information (Hasanah et al., 2020). In the process of associating or reflecting, students are encouraged to search for various sources manually or digitally, so the sources sought by students will be used to process experimental data. Managing information, students carry out these activities to train and students develop their abilities. This also includes providing opportunities for them to present the results of discussions with an honest attitude, comply with rules, work hard, and educators are able to apply inductive and deductive thinking procedures to each student. Opinions from Informants I6, I7, and I8, are in line with the results of the interviews, which stated that: "In conveying the results of discussions in front of the class, each member carrying out the presentation is required to be able to speak good and simple language among students but the language must also be They are able to develop, engage in good discussions individually with classmates and teachers."

e. Communicating

The activities carried out aim to train students to develop honest, careful, tolerant attitudes, and enable them to think coherently in expressing opinions that are brief and clear (Buloto, 2018). This opinion refers to the efforts of students in improving appropriate and competent language skills. This is also expressed by Informants I2 and I3, who stated that in training students' learning patterns when reading and looking for additional information related to learning materials, students are given orders to look for these sources in the library and through websites or the internet and speak them using the language which is good and easy to understand. This opinion is supported by informants I4, I5, I6, I7, and I10. When students are given the opportunity to study in groups, the teacher directs them to prepare presentations on the results of the discussion. Before making a presentation, the teacher encourages students to think about new sources of information related to the topics discussed in the discussion. In addition, the teacher also provides students with relevant material so that they can spontaneously answer and provide suggestions regarding the form and design of the discussion assignment.

Cognitive Ability of Learners

The cognitive abilities of students in the learning process of learning catholic religious at Budi Murni 2 Medan Catholic Private Senior High School have been known to have cognitive skills in each student in learning which has begun to increase.

a. Ability to Remember

The ability to remember has an important role in learning and solving activities, this is because that knowledge is used to complete complex tasks. For example, in English lessons, the skill of remembering vocabulary functions when answering essay tests (Susanti, 2018). This was explained by informants I1 and I2, namely the informant stated that teachers provide motivation and share life experiences with students, this can increase the enthusiasm of students. The opinion of the informants above was supported by other informants, namely I1, I2, I3, I4, I5, I10, and I11 which also stated that during the learning process, the teacher made excavations related to the learning material that had been taught previously. This encourages students to remember and express their understanding of the material discussed earlier. The teacher also invites students to relate previous material to the material being discussed at that time (Ajhuri, 2019). The aim is to improve the ability to remember and long-term memory of students related to learning material. Thus, the process of activeness in learning can be achieved.

b. Ability to Understand

Understanding means developing reach. Students can be said to understand if they are able to construct the meaning of an educational message delivered orally, in writing, or graphically (Pangelak et al., 2021). Opinions from informants I1 and I2 state that, the teacher provides an explanation regarding the meaning of the word "interpretation" and train students to interpret an event, for example interpreting the text of the scriptures about the story of the birth of Jesus. The informants' opinions above were supported by other informants, namely I3, I4, I5, I7, I8, and I9. The interview results were also supported by the results of

OB II's observations on Friday, March 17, 2023, in class X2 Budi Murni 2 Medan Catholic Private Senior High School. The teacher assigns all of them to express their understanding regarding learning and provide appreciation or added value for students who dare to do so. Students are given the opportunity to ask what they want to understand from the learning material.

c. Ability to Apply

The ability to apply is an important ability to produce actions that can guarantee the achievement of certain goals. In applying a theory, method, or other things, the process of making or applying it must be planned and arranged before carrying out practice. Opinions of informants I2 and I3 revealed that the teacher made efforts to invite and train students to be able to apply the understanding gained in learning Catholic religious education. This opinion is supported by informants I4, I5, I6, and I11, namely the teacher encourages students so that they can accept learning materials, even in simple language or from references and new sources of information related to learning materials.

d. Ability to Analyze

Involves examining or investigating a matter or event with the aim of understanding the actual situation. Usually, analysis is carried out in the context of research or data processing to increase students' understanding in making decisions that have a major impact on an event. Opinions of informants I1 and I2 revealed that in terms of analyzing and increasing literacy to influence ways of thinking. Deliver teaching materials well, then distribute teaching materials individually. Encourage students to interact with questions that stimulate thought. Make questions about certain journals, incidents, or events, and provide answers as enrichment. The above opinion is supported by the opinions of informants I3, I7, I8, I9 and I10. The teacher encourages and accompanies students in carrying out discussion assignments, as well as facilitates students to carry them out in accordance with the work steps that have been planned together.

e. Ability to Evaluate

The ability to evaluate is to check, generalize, summarize, criticize, and give suggestions (Pangelak et al., 2021). Evaluating is the stage of understanding to measure and assess information on the extent to which certain standards are achieved in learning. The opinions of the two informants I1 and I2 revealed that in reminding and providing challenges to students, they are more motivated and active in group learning. Teach students that every argument conveyed by others must still be analyzed and examined. The informants' opinions are supported by the opinions of informants I3, I4, I5, I7, and I9. After that, students are given the opportunity to collect group assignments with a collection system using one paper or table. Students who previously did not do anything are in a hurry to do it, so that a small part of the results of their discussions did not meet the expectations of the Catholic religious education teacher.

f. Ability to Create

The ability to create is the skill of each individual or student to create, build and produce something new by using tools or assistance from certain parties. Student activities in learning that demonstrate this ability can be observed or displayed in general about learning activities carried out in class the

opinions of informants I2 and I3 revealed that in providing explanations regarding the topics to be discussed in groups using simple language, students competed to increase their willingness to think creatively. The informants' opinions above are supported by informants I4, I6, I9, I10, and I11. Teachers provide facilities that facilitate the progress of students in learning.

These facilities are in the form of facilities or the addition of new understanding regarding the material to be discussed. All students enthusiastically use all the facilities provided by the teacher for the completion of assignments. From the results of observations, interviews, and documentation, the research team concluded that by repeating and reviewing the material taught by the teacher, the spirit of exploration and curiosity of students will be increasingly visible and developed. So that the knowledge possessed by students increases. Each student invites and reminds other friends to contribute by giving opinions, both those that have been confirmed and those that still need to be confirmed. The teacher also reminds students to always respect the good intentions of other people, even though the goals to be achieved have not been achieved. The results of observations, interviews, and research documentation conducted by the research team on March, 9, 2022 can be concluded that by inviting students to explore learning material that has been taught before, students' ability to remember becomes visible when they express their understanding of learning material. The ability of students to provide examples or interpret understanding related to material becomes increasingly clear that each student actually has this ability. The ability of students will develop and increase if they are always given training in a responsible attitude towards the things that are entrusted to each student. This is based on the attitude of the teacher who provides direction and support to students to listen and pay attention to the material presented, so that students can improve their abilities.

CONCLUSIONS AND RECOMMENDATIONS

The results of the study show that the process of learning catholic religious education using a scientific approach supports the liveliness of learning activities. The school provides study and learning facilities, such as laptops, projectors, catholic religious education books, and manners for students. The cognitive abilities of students in the learning process of learning catholic religious at Budi Murni 2 Medan Catholic Private Senior High School have been known to have cognitive skills in each student in learning which has begun to increase.

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