

REINFORCEMENT OF DEVELOPING HIGHER ORDER THINKING SKILLS BASED LEARNING TOOLS IN MADRASAH KOTA JAMBI

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Abstract

Abstract. The current community service aims at training and mentoring the elementary school teachers to develop higher order thinking skills based learning tools. Higher order thinking skills have become the vital part that must be included in teaching and learning activities. It enables the students to be able to compete globally. The program involved twenty four teachers at Madrasah Nurul Yaqin Kota Jambi. The method of community service was service learning. The school was selected as the site of community service by considering the active participation of the school in attending any workshops held by different institutes. The results indicated that the participants were satisfied with the training since they could figure out the how to develop higher order thinking skills based learning tools. Also they could implement the developed learning tools in their own classrooms.

Keywords: Higher Order Thinking Skills, Learning Tools

INTRODUCTION

P21 (Partnership for 21st Century), a non-profit organization, lists three types of skills, including: learning skills (creativity and innovation; critical thinking and problem solving; communication and collaboration), literacy skills (information literacy; media literacy; ICT literacy) and life skills (flexibility, adaptability; initiative and self-direction; social and intercultural skills; productivity and accountability; leadership and responsibility) (Partnership, 2017). In line with the framework put forward by P21, Kemdikbud states that the 21st century learning pattern emphasizes the ability of students to find out from various sources, formulate problems, think analytically and collaboratively and collaborate in solving problems (Litbang Kemendikbud, 2013) as cited in (Safitri, 2021).

In Indonesia in the 2013 curriculum, the application of 21st century skills is known as 4C (Communication, Creativity, Critical Thinking and Collaboration). Activities such as analyzing, evaluating and reasoning are included in the breakdown of knowledge and skill levels in the 2013 curriculum (Menteri Pendidikan Dan Kebudayaan Republik Indonesia, 2013). By having critical thinking skills, it is expected that students in Indonesia can solve various learning problems independently, make innovations and of course can improve the quality of education quality.

Higher order thinking (HOTs) is a way that can be used so that students can have critical thinking skills. Through HOTS, learners are expected to achieve various competencies such as communication skills, critical thinking, cooperation skills and self-confidence as well as creativity and innovation (Amali et al., 2022; Haniefa, 2022). Higher order thinking, the level of cognitive processes in Bloom's taxonomy that has been refined by Krathwohl, is a higher ability than just remembering. The HOTS level includes the ability to analyze, evaluate and create.

Higher order thinking skills are needed to see the quality of one's thinking in developing a positive attitude towards various skills (Heong et al., 2016). HOTs are formed in learners with various thinking processes, from low to high levels at the same time. On the other hand, HOTS is a mental process that encourages students to develop factual, procedural, conceptual and metacognitive knowledge in critical and creative domains (Hobri et al., 2018). It can be said that HOTS is a component of critical thinking and creative thinking skills that are innovative, creative, and imaginative (Abosalem, 2016).

Although higher order thinking skills are an important component to be developed in the learning process, most teachers still do not optimally implement higher order thinking skills-based learning. Based on research conducted in several Sekolah Penggerak in Kota Jambi, it was found that there were teachers who only applied HOTS-based learning in one of the learning stages. Teachers only use HOTS indicators in the operational verbs formulated in the competency achievement indicators in the lesson plans and some only use HOTS at the learning evaluation stage. Only a few teachers implemented HOTS-based learning simultaneously in the three stages of learning (planning, implementation and evaluation) (Suryani, 2024). This is quite unfortunate considering that the implementation of HOTS will be maximized if it is done simultaneously at three stages of the learning process.

MIS Nurul Yaqin is an elementary school where several community service teams devoted their time to carry out the programs. The teachers of the school are very active in upgrading their pedagogic knowledge particularly the principle. The school has assets in which human resources who have good teaching competence. The informal interview was conducted, and the team found that the school has received the most updated teaching innovations by Tanoto Foundation. It is congruent with the theme of community service that the present team introduced. It is expected that the teachers could promote their teaching competence.

Based on the description above, the community service team feels the need to provide assistance and training to English teachers in Jambi city driving schools in developing high-level skills-based learning tools. Through this activity, it is hoped that English teachers will be able to compile and develop HOTS-based learning, using operational verbs, selecting and implementing learning strategies that are suitable for HOTS-based learning and compiling HOTS-based assessment instruments. Thus students can have comprehensive higher order thinking skills.

IMPLEMENTATION METHOD

The mentoring is done using the Service Learning method. Service-learning (SL) is broadly defined as a form of experiential education that integrates meaningful community service into the curriculum. SL contains two main elements: engagement in the community (service) and reflection on that engagement (learning). SL participants must demonstrate a balance between abstract and concrete knowledge, development of social intelligence, and civic responsibility. Teachers involved in service activities are teachers who have a good understanding in terms of pedagogical, professional, personality and social skills. Reciprocity is an important factor that leads to the ongoing success of a learning experience program (Brown, 2007)

Based on the service method, the service steps carried out by the service team are as follows:

1. Partner Selection

The service team conducted observations at schools that were considered to require training and mentoring. MIS Nurul Yaqin is a school that has teachers who need further understanding of higher order thinking skills-oriented learning. The targeted schools are schools that have implemented the independent curriculum and some are still using Kurikulum 2013.

2. Activity Steps

Training and mentoring activities begin with the delivery of materials related to the preparation of teaching tools oriented to higher order thinking skills. The material presented includes the preparation of teaching tools, determining learning strategies and preparing learning evaluations. Furthermore, the activity is continued by providing assistance to teachers to develop learning tools according to their respective fields of science. Finally, teachers practice using high-level thinking skills-oriented learning tools in their respective classes.

3. Participants and Mentors

Participants in mentoring activities and the preparation of hots-oriented learning tools are teachers from various disciplines. Supervisors are lecturers at the Faculty of Tarbiyah and Keguruan UIN Sulthan Thaha Saifuddin Jambi.

4. Activity Planning Stage

Activity planning includes: 1) interviews with school principals, 2) submission of proposals to LPPM, 3) implementation of activities, 4) evaluation, 5) preparation of articles, 6) preparation of final reports.

RESULTS AND DISCUSSION

Community service activities organized by lecturers of the Faculty of Tarbiyah and Keguruan UIN Sulthan Thaha Saifuddin Jambi are community service activities in the form of training and assistance to teachers with the theme “Training and Assistance in Preparing Learning Tools Based on Higher Level Thinking Skills in Jambi City”. the speaker presents the cognitive domain based on Bloom's taxonomy in compiling learning objectives in teaching devices. This is done to strengthen teachers' understanding of the realm of low, medium and high level thinking.

In addition to explaining the cognitive domain based on Bloom's taxonomy, the speaker reviewed learning strategies that can be used so that students can develop higher order thinking skills. The team considers this important to convey so that students can follow the learning process from beginning to end, namely at the evaluation stage, well. One of the learning models emphasized is the Inquiry learning model, where in this learning model, students can find their own concepts based on the observations made.

The first day of community service activities was carried out offline, namely Monday, December 9, 2024 at MIS Nurul Yaqin. The community service activity was opened by the head of the community service. Then the activity continued with the core activity, namely training and assistance in preparing learning tools from the speaker. She conveyed related to Bloom's taxonomy, learning models and instruments based on higher order thinking skills.



Figure 1. The Opening Remarks by the Head of Community Service

The participants were assisted in developing high-level thinking skills-oriented learning tools. The speaker conveyed the significance of higher-order thinking skills which are highly desirable skills in the 21st century.

On the second day, the speaker continued the discussion about learning models that can be applied in the learning process. The activity was held in the same place, namely at MIS Nurul Yaqin. Participants shared their learning experiences and the learning models used.



Figure 2 the participant shared her experience employing the particular learning model

On the third day of the activity, participants were accompanied by the service activity team to develop higher order thinking skills-oriented learning tools. A total of 24 teachers designed teaching tools. Teachers determine the material, formulate learning objectives, learning models and assessment instruments. Teachers are guided and directed to develop teaching tools so that the teaching tools used can be used in their respective classes.

From the results of the mentoring activities, the service team found that teachers need a lot of time in preparing learning tools because they adjust to the ability level of students. The activity was continued with a discussion in the whatsapp group so that teachers could follow up on the teaching tools that had been prepared. The teaching devices that were prepared were then reviewed by the service team. Activity participants made revisions based on suggestions given by the service assistance team.

CONCLUSION

From the results of training and mentoring activities carried out through observations and interviews with activity participants, it can be concluded that training and mentoring activities for the preparation of high-level thinking skills-oriented learning tools can help teachers in preparing teaching tools that are in accordance with the characteristics of students. Starting from the limited understanding they have, teachers are able to develop teaching tools oriented to higher order thinking skills which are expected to develop and improve the thinking domain of students.

Moreover, teachers can compile learning evaluations from low, medium and high level cognitive domains. With the implementation of a high-level thinking skills-oriented learning process, students can think and compete globally and can keep up with the development of science and technology well.

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