

Training on Preparation of Islamic Integrated HOTS-Based Questions and Their Application in Online Learning in Elementary Schools

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ABSTRACT. The training for preparing Higher Order Thinking Skills (HOTS) Questions was motivated by the problems faced by Elementary Schools teachers in Malang Regency, in making learning evaluation questions given in assessing student learning outcomes so far, they are still at the Lower Order Thinking Skills level (LOTS). This is due to the lack of knowledge and understanding of teachers about the concept of HOTS and the lack of ability and skills of teachers in preparing HOTS-based questions. The training for preparing Higher Order Thinking Skills (HOTS) Questions was held at MI Hayatul Islam, Malang Regency, the training participants were Elementary Schools teachers in Malang Regency. This community service activity for the Masters of Education Master's Program in Elementary Schools Postgraduate Islamic University Maulana Malik Ibrahim Malang Islamic University is carried out by providing training and assistance in preparing questions based on guidelines for writing HOTS questions, especially for grade IV and V teachers. Through lecture, question and answer, discussion, and In practice, this training turned out to be able to open up insight into the knowledge, understanding, and skills of teachers on how to compose questions and improve teachers' abilities and skills in making questions at the level of higher-order thinking skills so that they can be used to measure the development of students' thinking and reasoning abilities properly in accordance with the final results The expected learning is that students can think critically and creatively so that they can apply their knowledge and skills to identify and solve problems encountered in everyday life.

Keywords: *Training; Problem Preparation; HOTS; Primary school teachers*

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INTRODUCTION

The target of this activity is Elementary School/MI Teachers in Malang Regency through Community Service Master of Education Study Program for Elementary Schools Teachers in 2022 to develop the ability of madrasa teachers to develop Islamic integrated HOTS-based assessment instruments produced by teachers at the end of the activity. This training aims to improve the academic and professional competence of teachers which makes them more professional, active and creative (Miedijensky et al., 2021; Penuel et al., 2007). Teachers will be able to develop Islamic integrated HOTS-based assessment instruments well if they have a high will to master these abilities, one way is by participating in training activities to improve teachers' abilities in developing HOTS-based instruments (Miri et al., 2007). The goals of the 2013 curriculum with madrasas have a meeting point that equips students with balanced intellectual

and spiritual abilities, therefore students who are able to think critically, creatively, and are able to solve problems independently and still have high spirituality are expected to be achieved if the teacher able to present an Islamic integrated HOTS-based assessment instrument (Moh. Zaini Fanani, n.d.; Suseelan et al., 2022). Seeing the importance of mastering the ability to develop HOTS-based instruments (Brown et al., 2019), it is necessary to have guidance and training conducted to provide insight and skills for madrasa teachers in Malang Regency in developing skills in making HOTS-based assessment instruments that are integrated with Islam.

A teacher is said to be professional if he is able to compile and carry out evaluations or assessments properly (Jamilah, 2020; Lloyd, 2009; Sepriyanti, 2012; Supriadi, 2009). The results of the assessment are an overview of the extent to which learning success is achieved and which can later be used as a source of data for making appropriate decisions to follow up on ongoing learning activities. For this reason, a qualified knowledge and understanding of how to prepare good questions as well as the ability and skills to make questions is very necessary to be mastered by a teacher. A teacher must be able to make questions that can measure students' reasoning power at a high cognitive level or better known as higher order thinking skills (HOTS). (Lestari et al., n.d.; Prima Kurniawati & Rahmantika Hadi, 2021) stated that teachers must be able to develop and apply HOTS-based questions to improve the quality of students' thinking, namely problem solving, decision making, critical and creative thinking skills. Teachers should not rely on the questions contained in textbooks which are used as daily guidance in teaching to provide evaluations and assessments to students because in fact the questions contained in supporting books are still dominated by indicators of remembering and understanding which are C1 levels and C2 or lower order thinking skills, better known as lower order thinking or LOTS. According to (Tseng, 2020; Zulhamdan et al., 2022) questions included in the HOTS criteria that measure the ability to analyze (C4), evaluate (C5) and create (C6) are rarely found in supporting books. However, in reality, there are still many teachers who take questions from handbooks to evaluate their students' learning outcomes. As a result, students are not accustomed to think broadly and deeply. This is also still being done by teachers at Hayatul Islam Elementary School in Purwosekar Tajinan Malang.

This elementary school which is under the auspices of the Ministry of Religion of Malang Regency has been given the authority to create its own questions to evaluate student learning outcomes in the last 2 (years). This is different from other private primary schools which have to take questions at the rayon school and are not yet allowed to carry out independent learning evaluations (Fatimah, Asy'ari, Sandria, & Nasucha, 2023; Pratiwi & Amalia, 2021; Qutsiyah, Asy'ari, Fadhillah, Sirojuddin, & Nasucha, 2022). The results of observations made by the service team show that in giving daily practice questions as well as daily, monthly, or semester test questions, teachers generally still take questions from the handbook. The teacher's lack of knowledge to select and sort questions in the form of LOTS or HOTS causes them to assume that all questions have the same level for assessing the level of students' thinking abilities. Based on the results of the interviews, it can be concluded that a lack of understanding about HOTS causes them to be less able to modify existing questions or create their own HOTS-based questions (Fatimah & Rinawati, 2022). Teachers have not mastered the concept of HOTS and consider that the reasoning or thinking power of MI or SD level children is not yet capable of critical thinking. In addition, the lack of information, training or socialization about HOTS causes teachers to be less skilled in preparing HOTS questions.

They are still confused in determining and using the right verbs in the preparation of questions. Even though the selection of the right operational verb is an indicator that the teacher has been able to develop a HOTS level evaluation instrument (Baharun dkk -Penilaian Berbasis Kelas et al., 2018; Dahlan et al., n.d.). In addition, they did not really understand how to evaluate HOTS questions. So far, evaluations have been carried out in the form multiple choice questions and closed descriptions that require answers based on memory and understanding. Therefore, students are required to memorize more of the material provided. The impact is that the level of

student thinking is still at the level of lower order thinking skills (LOTS). For this reason, teachers really need socialization about the nature and importance of HOTS. Teacher understanding skills training on how to compose the correct questions according to basic competencies, indicators, and learning objectives must be provided. Teachers must also be trained to compile Higher Order Thinking Skills questions in a directed and measurable manner so that it is hoped that later the quality of the questions given to students will be in accordance with the demands of learning outcomes and also follow the rules of writing good and correct items. This is in line with (Culver et al., 2019) (Zulhamdan et al., 2022) states that schools need training to improve understanding of HOTS for their teachers in line with the frequent revisions of the 2013 Curriculum and independent learning by the government which demands the implementation of learning processes and assessments based on higher-order thinking skills or HOTS.

Based on the explanation above, it can be explained that the basic problems faced by partners, especially teachers at Hayatul Islam Elementary School, are: 1. The teacher's lack of knowledge and understanding about preparing HOTS questions, 2. The teacher's lack of ability and skills in preparing HOTS questions. This Community Partnership Program (PKM) activity targets Madrasah Ibtidaiyah teachers, especially grade IV, V, and VI teachers. The participants in this activity totaled 25 people from 4 (four) madrasah ibtidaiyah, namely Madrasah Ibtidaiyah Hayatul Islam, MIS Al-Falah, MIS AL-Hikmah, MIS Bahrul Ulum, Tajinan District, Malang Regency. The target of this activity is to increase teachers' understanding and ability to compose HOTS questions. From that, the service team carried out HOTS-based question preparation training activities which later could be used to measure high-level learning outcomes properly and correctly in an effort to improve the quality of learning. To achieve this target, this Community Service activity provides assistance in the form of training which consists of two parts, namely: first. Introduction of HOTS, the importance, and urgency of HOTS in the process and evaluation of learning, and techniques for preparing HOTS questions. Second, the practice of preparing HOTS questions based on Basic Competency, indicators, and learning objectives. By holding this training, the teacher's knowledge and understanding of HOTS increases, and the quality of the questions produced can be used to measure higher-order thinking skills (HOTS which can indirectly develop the students' own reasoning and critical thinking.

METHOD

The method implemented in this activity is qualitative in the form of training (Gumanti et al., 2016; Mulyatiningsih, 2013; Sulyanto, 2018; Thanh et al., 2015). Training on the development of HOTS-based evaluation instruments for elementary school teachers was held at Madrasah Ibtidaiyah Hayatul Islam, Tajinan, Malang Regency, East Java. Participants in this activity totaled 25 people from 4 Islamic elementary schools, namely Hayatul Islam Islamic Elementary School, MIS Al-Falah, MIS AL-Hikmah, MIS Bahrul Ulum, Tajinan District, Malang Regency, East Java. This training activity was carried out for one day. The design and implementation methods of the training are as follows: 1) analysis needed by elementary school teachers in developing classroom learning; 2) conducting interviews and observations in elementary schools; 3) preparing materials to be used for training; 4) the training activities carried out include: a. delivery of material using PPT; b. asking training participants to discuss; c. the practice of making HOTS evaluation instruments; 4) teachers can make evaluation instruments.

RESULT AND DISCUSSION

The PKM program aims to increase the knowledge, abilities and skills of primary school teachers in preparing HOTS questions so that they can carry out a teaching and learning evaluation process that is more targeted according to the expected competency standards so that the achievement of learning objectives can be measured with certainty. Based on the problems faced by partners, this PKM activity provided training and assistance to 25 class teachers to be given training in preparing HOTS questions at the C4 (analyzing), C5 (evaluating), and C6 (creating) thinking levels. (Lestari et al., n.d.). The teachers who were given the training were delegates from the primary school appointed by the head of the Madrasah based on the results of consultations with other teachers in coordination with the PKM implementing team, as well as two other madrasahs under the auspices of the foundation with one of the partners. In order to provide proper training and assistance, the service team makes observations of partner madrasahs to get an overview of partner problems and the right solutions to these problems. Then socialize to the head of the madrasah and teachers to explain how PKM activities are carried out. Finally, training is given for two days online and face to face. The details of the implementation of the activities are described below.

1. Observation The service team made observations by collecting evaluation questions that had been made by teachers, analyzing these questions to determine the criteria for students' thinking levels as measured whether they were categorized as HOTS or still LOTS, conducting interviews with the head of the madrasah to obtain an initial picture the teacher's knowledge of HOTS questions, then determines the system for implementing community service activities later.
2. Socialization of activities The service team socialized this activity not only to the madrasah head and teachers at the two primary schools, but also socialized it to the head of the primary school district of Beringin to get input on the training activities to be carried out. In this socialization, the procedures for carrying out service activities, the roles and responsibilities of each element involved are also explained.
3. Training To achieve the objectives of this activity, training and assistance is carried out to increase knowledge, skills in making, correctly compiling HOTS questions according to the level of students' critical thinking skills in the form of multiple choice questions and essays, following, how to give a value that is expected to not only improve the ability of teachers in the preparation of questions but also evaluate the achievement of learning objectives so that it can measure the level of ability and knowledge of students in learning. The stages of implementing this activity include (1) various lectures conducted online and face-to-face, (2) training in the form of practicing HOTS questions and face-to-face mentoring, (3) evaluation and reflection to assess the success of this community service activity in transferring knowledge to participants. The participants involved in this activity were 25 class teachers who taught grades IV, V, and VI, who came from 4 (four) elementary schools. The activity was carried out for 2 (two) days, namely 10 and 11 November 2022, where the first day was online and face-to-face on the second day. Participation given by the good partners, namely Madrasah Ibtidaiyah Hayatul Islam, MIS Al-Falah, MIS AL-Hikmah, MIS Bahrul Ulum, Tajinan District, Malang Regency in this PKM activity included: a. as partners to determine the right participants to take part in PKM activities, the head of the madrasah determines the teachers who will be included as participants in this community service activity, b. as an intermediary for the activity implementing team with the target of the activity namely elementary school teachers where the head of the madrasah plays the role of socializing this activity to the teachers, c. as a giver of direction in determining the type of training provided and giving suggestions in making training materials that suit the needs of the madrasah, d. as an observer during the course of the activity so that he can provide suggestions and input for the success and smooth running of the program, e. as a measure of the success of activities, partners, in this case the madrasah heads, measure the extent to which the skills of the primary school teachers they lead improve in the preparation of HOTS questions and their influence on the evaluation of the results of teaching and learning activities carried out by

teachers and measure the achievement of students' language learning outcomes, f. as an evaluator together with the activity implementing team to determine the sustainability of PKM activities.

Evaluation of program implementation and program sustainability is carried out by the service team together with partners in an organized and complementary manner. Evaluation activities are carried out during PKM activities by measuring the teacher's skills and abilities in compiling HOTS questions which are marked by the use of appropriate operational verbs, making various questions, and knowing how to give an assessment. Based on observations in the field during the activity, interviews with the head of the madrasa, and discussions with participants, it was found several facts that HOTS-based learning training was needed for these madrasa teachers because after evaluating the results of the children's exams on HOTS-based questions they had not achieved maximum results. it is still below 50% who achieve KKM, so it is necessary to hold this training to support students' ability to answer questions based on HOTS. In addition, HOTS-based learning training is also needed to familiarize and develop high-level and creative mindsets for students, develop active and fun learning models that can involve all students in learning activities.

The training activity for the Development of Islamic Integrated HOTS Oriented Assessment Instruments for MI Teachers at Madrasah Ibtidaiyah Hayatul Islam Malang Regency is expected to foster a strong new spirit from teachers in the madrasah environment. So that the community service program to produce educators who have professional skills can be realized. Through this training it is hoped that they will be able to leave traditional learning patterns and make teachers who have professional skills both in terms of teaching methods and how to develop Islamic integrated HOTS oriented assessment instruments..

Table 1; The target of the HOTS-Based Questions Preparation Training activity

Training Activities	Activity Targets
Observation, Socialization, Lecture	Provide information on the development of learning that is relevant in the current era.
Question and answer	Facilitate teachers in continuing to develop skills in developing Islamic integrated HOTS oriented assessment instruments.
Discussion	Provides insight into the preparation of a HOTS-oriented assessment instrument that is integrated with Islam.
Practice Making HOTS Questions	Helping teachers to produce a learning product that can be used as a learning guide in accordance with the characteristics of students in the madrasah environment.

Community Service Based Master Study Program for Madrasah Ibtidaiyah Teacher Education UIN Maulana Malik Ibrahim Malang Trains MI/SD Teachers in Malang Regency Theme: Developing HOTS Oriented Assessment Instruments at Madrasah Ibtidaiyah Hayatul Islam Purwosekar Tajinan Malang. Training on the development of HOTS-oriented research instruments for SD/MI teachers in Malang Regency through Community Service for the 2022 Madrasah Ibtidaiyah Teacher Education Masters Program is being held at the Hayatul Islam Ibtidaiyah Madrasah located on Jl. Bougainvillea no. 20 Purwosekar Tajinan Village, Malang Regency The participants were MI/SD teachers in Malang district. The resource persons for this activity were Prof. Dr. H. Wahid Murni, M. Pd., A.k; from the Madrasah Ibtidaiyah Teacher Education Masters Study Program is Dr. Hj. Samsul Susilawati, M.Pd, and Dr. Zubad Nurul Yaqien, M.Pd; from PGMI Masters Study Program students are Krismoneta Fatmawati, Fazat Arifatul Ulfa.

PENGABDIAN MASYARAKAT
BERBASIS PRODI MAGISTER PENDIDIKAN GURU MADRASAH IBTIDAIYAH
PASCASARJANA UIN MAULANA MALIK IBRAHIM MALANG TAHUN 2022

Tema:
"PENGEMBANGAN INSTRUMEN PENILAIAN BERORIENTASI HOTS
TERINTEGRASI ISLAM BAGI GURU MI & SD KAB. MALANG"

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Malang, 18 November 2022

Figure 1: The theme of Madrasah Ibtidaiyah Teacher Training

Madrasah is a formal educational institution that aims to produce generations who have knowledge, faith, and piety. In principle, the goal of K13 and madrasahs is to have a meeting point that equips students with balanced intellectual and spiritual abilities. The government has made efforts so that the 2013 curriculum can be implemented optimally, one of which is by compiling national thematic books. However, in core competencies, thematic learning on the spiritual aspect has not fully appeared in every study in thematic books, it is necessary to use appropriate teaching materials to achieve the goals of the institution and the 2013 curriculum, namely by using Islamic integrated HOTS-based thematic LKPD. Thus, we conduct training to facilitate teachers so they can develop creativity and innovation in developing Islamic integrated HOTS oriented assessment instruments.



Figure 2: Submission of Materials

The target of this activity is Elementary School/MI Teachers in Malang Regency through Community Service Master of Education Study Program for Madrasah Ibtidaiyah Teachers in 2022 to develop the ability of madrasa teachers to develop Islamic integrated HOTS-based assessment instruments produced by teachers at the end of the activity. This training aims to improve the academic professional competence of teachers who make them more professional, active and creative. Teachers will be able to develop Islamic-integrated HOTS-based assessment instruments well if they have a high will to master these abilities, one way is by participating in training activities to improve teachers' abilities in developing Islamic-integrated HOTS-based instruments. The goals of the 2013 curriculum with madrasas have a meeting point that equips students with balanced intellectual and spiritual abilities, therefore students who are able to think critically, creatively, and are able to solve problems independently and still have high spirituality are expected to be achieved if the teacher able to present an Islamic integrated HOTS-based assessment instrument. Seeing the importance of mastering the ability to develop Islamic-integrated HOTS-based instruments, it is necessary to have guidance and training conducted to provide insight and skills for madrasa teachers in Malang Regency in developing skills in making Islamic-integrated HOTS-based assessment instruments.

In accordance with the purpose of this community service activity, which is to provide training in preparing questions based on Higher Order Thinking Skills (HOTS) for teachers of Madrasah Ibtidaiyah Hayatul Islam, MIS Al-Falah, MIS AL-Hikmah, MIS Bahrul Ulum, Tajinan District, Malang Regency, then At the end of the training activity, reflection is carried out to determine the extent of the success of this activity. The results of the reflection show: 1. an increase in the participants' understanding, in this case the teachers of Islamic elementary schools, about HOTS, the basic concept of HOTS, the importance of applying HOTS in learning and learning evaluation, and the use of Operational Verbs (KKO) Bloom's taxonomy), 2. an increase in knowledge participants about the types of questions that can be presented in the form of HOTS-based questions and how to make good questions based on the criteria written in the guidebook for writing HOTS questions (Higher Order Thinking Skills) published by the Center for Educational Assessment 2019. 3. improving participants' abilities in making HOTS-based questions which can be seen from their habit of designing items based on basic competencies, basic competency standards, question indicators, making question grids, making

question cards, to presenting the final questions, 4. improving teacher skills in compiling level thinking questions (HOTS) based on the type of questions and difficulty level criteria n questions according to the rules of writing questions.

Based on the results of this reflection, the training participants were also asked by the madrasah to re-socialize the results of the training they had participated in to their colleagues at their respective teaching places coordinated by the head of the madrasa. Furthermore, the head of the madrasa also requested that the teachers who took part in this training be able to apply the results of the training by making HOTS-based questions in evaluating student learning outcomes. The description of this service activity can be described as follows.

1. First day (November 10, 2022) On the first day, community service activities are carried out online. This method is carried out at the beginning of the training as an introduction to provide an understanding of HOTS, an important concept in the preparation of HOTS questions. The techniques for preparing and evaluating HOTS questions are adjusted to the competencies and learning objectives. Introductory material about HOTS was given online via the Whatsapp group by way of discussion and brainstorming on the first day. From this activity, an initial description of the participants' knowledge of the concept of higher order thinking (HOTS) was obtained and to what extent they were familiar with the concept, as well as the application of what they had done in learning so far had not yet been implemented. It was found that 90% of the participants did not know what was meant by higher order thinking, learning by applying HOTS, and had never conducted a HOTS-based learning evaluation..

2. Day Two (11 November 2022) On the second day of the first session, the activity continued with the provision of material on the basic concepts of HOTS and the forms of questions, preparation of HOTS questions, and preparation of objective tests. In this session, it was found that there were many obstacles encountered by the participants in applying question-based questions, namely the limit on the number of questions to be given compared to the number of SKKD lessons to be evaluated, how to write questions according to the writing rules and guidelines for preparing HOTS questions, they had not been put into practice. HOTS-based learning in the madrasah where they teach due to constraints on limited learning resources, mastery of technology, limited funds owned by schools for implementing HOTS-based learning activities, lack of interest and motivation of students in actively participating in learning activities which are influenced by the environment and students' family backgrounds If you know the level of understanding of the teachers about the material previously given, training and mentoring activities are given in the form of practice of writing questions. The service team provides assistance to teachers in applying the knowledge gained.

In this training, the trainees take part in a series of activities to compile HOTS questions from compiling a question grid, making question cards, making questions in the form of multiple choices and essays with good sentences and writing in accordance with HOTS-based question writing guidelines published by the Ministry of Education and Culture (2019), which includes(Dui, 11 C.E.; Moh. Zaini Fanani, n.d.): (1) determining the basic competencies and the material to be started, (2) compiling the question grid, (3) formulating the question indicators, (4) writing questions according to the rules of writing questions, to (5) how to provide answer choices and also assessment . Teachers work in groups according to their respective grade levels. In this practice, previously teachers were asked to bring questions they had created and used in previous schools. In addition, they were also asked to bring textbooks according to the class level they taught.

Teachers are guided and accompanied by the service team in compiling questions according to the question writing guide based on the steps for making questions that have been explained by the service team. At this stage, discussions and brainstorming are also carried out to find out the problems and difficulties faced by the teacher in the process of compiling questions such as determining basic competencies and material to be assessed, determining the items and the composition of the difficulty of the questions, making a question grid, compiling questions

on cards. The following questions with answers and reasons categorize the questions into HOTS.



Figure 3. Evaluation and Review of Questions

Practice Compiling Questions, after compiling the questions, participants were asked to present their work per group and commented on by the service team and other participants. Participants who appeared were asked to explain in a coherent way the procedure for compiling the questions to give reasons why the questions they made were included in HOTS. In this stage the team provides assessments, criticisms and suggestions for the items produced by the participants. Based on this, participants were asked to improve (revise) the item so that it became a HOTS item that complies with the rules for writing questions. Figure 3. Participant Performance At the evaluation stage, a review of the questions is carried out to provide an assessment of the feasibility of the results of the participants' practice in compiling HOTS questions. The results of the teacher's work were presented and then discussed and reassessed jointly by other participants and the service team. The evaluation results showed that some participants still did not understand how to develop items from a low to a high level of thinking and also to differentiate and understand the operational verbs used in Bloom's taxonomy according to the difficulty level of higher thinking. In addition, the creativity of writing teacher questions is still not optimal. In this activity the head of the madrasa monitors the activities and work of the teachers. From the presentation of the results of the implementation of the Islamic integrated HOTS-oriented assessment instrument development training at MI Hayatul Islam Malang Regency, it can be said that it has succeeded in introducing how to develop an Islamic integrated HOTS-oriented assessment instrument for MI Hayatul Islam teachers and its surroundings. The training was also able to provide opportunities for teachers to be able to improve their skills in developing Islamic integrated HOTS oriented assessment instruments.

This HOTS (Higher Order Thinking Skills) question preparation training activity for elementary school teachers in Malang district can increase teachers' knowledge and understanding of how to compose and write questions based on higher order thinking skills according to the stages based on HOTS question writing guidelines so that they are able and skilled in compiling written questions according to the grade level they are capable of, especially in the cognitive domain. Further assistance and coaching also needed in compiling questions to measure affective and psychomotor skills. In addition, they also need HOTS-based active and

fun learning training in order to achieve the HOTS-based learning objectives themselves, namely active and fun learning that can involve all students so that later they produce students who think critically and creatively and are able to apply the knowledge gained in everyday life. -day, develop it, and hopefully create something new that is useful for oneself and the benefit of the people.

CONCLUSION

This HOTS-based evaluation instrument development training for elementary school teachers was held at MI Hayatul Islam, Malang Regency, East Java. Based on the results of the HOTS-based evaluation instrument development training activities, it can be concluded as follows: a) Before this training was held, the participants were not able to make HOTS-based evaluation instruments. The questions that are usually made by training participants are questions from books or worksheets with cognitive levels 1 and 2. b) Through this training, participants are expected to be able to create and develop HOTS-based questions. By giving HOTS-based questions, it can make students more independent, more innovative, and successful in providing new solutions to complex problems. All participants were very enthusiastic about the implementation of this training. c) At the beginning and end of the training, participants are given pretest and posttest questions. Posttest results are much better than pretest results.

It is hoped that through this training, teachers who take part in the training will be able to make HOTS-based evaluation instruments for all subjects in elementary schools. At the end of this activity, all training participants were asked to fill out a form about this training in the form of suggestions, criticisms, impressions and messages so that the training activities could be better. The training participants were very enthusiastic about filling out the form.

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