Training on Videoscribe-Based HOTS Learning Media Development to Improve the Skills of Teachers

Ilma Fitriana¹*, Fathimah Soraya², Eka Putri Surya³, Alby Aruna⁴, and Abdul Rahman Prasetyo⁵

¹ Biology Study Program, Universitas Negeri Malang, Malang, Indonesia
² Chemistry Study Program, Universitas Negeri Malang, Malang, Indonesia
³ Economics Education Study Program, Universitas Negeri Malang, Malang, Indonesia
⁴ Educational Technology Study Program, Universitas Negeri Malang, Malang, Indonesia
⁵ Fine Arts Study Program, Universitas Negeri Malang, Malang, Indonesia

*ilmafitriana993@gmail.com

Abstract: The community service program in the form of training in creating HOTS-based Videoscribe learning media for Al-Azhar Islam Plus Elementary School teachers was initiated to overcome the challenges of suboptimal integration of information technology in the learning process. The distribution of teacher skills regarding technology, which is currently still low, means that many teachers in various schools still need the insight or skills to optimise the use of technology to maximise the classroom learning system. This training program aims to increase Al-Azhar Islam Plus Elementary School teachers' understanding of HOTS material for elementary school students and build teachers' skills in operating Videoscribe Sparkol software to create learning media. This training program was carried out in a structured manner using the ABCD method. During its implementation, several stages of training were carried out, namely, holding interactive workshops related to HOTS material and Videoscribe Sparkol software, group discussions, and direct practice sessions. Videoscribe, an effective learning visualisation tool, is the main focus of the training. This technology is an important means to facilitate students' HOTS development, stimulating critical, analytical and creative thinking. This training program has succeeded in increasing Al-Azhar Islam Plus Elementary School teachers regarding HOTS material, as evidenced by the percentage of 83% of teachers who participated in the training getting a score above 80 on the post-test. The teachers at Al-Azhar Islam Plus Elementary School have also succeeded in working together and creating two learning videos using Videoscribe Sparkol software at the end of the training program. The success of this training not only confirms the need for digital literacy for teachers and highlights Videoscribe's significant potential in creating deeper and more memorable learning experiences for students, in line with the evolving needs of contemporary education. This dedication is evidence of constant efforts to perfect the teaching and learning process in the digital era, placing quality and innovation at its core.

Keywords: Al-Azhar Islam Plus Elementary School; HOTS; training; videoscribe

**INTRODUCTION**

Learning media is very important to improve the quality and effectiveness of the learning process in the digital era and the growing information technology (Febrianto & Saputra, 2021; Saadi et al., 2022; Zainuddin et al., 2019). VideoScribe is one type of creative learning media that uses hand-drawn animation to convey information interestingly and interactively. This training program was implemented to improve teachers' ability to create videoScribe learning media based on HOTS (Higher Order Thinking Skills) as an effort used in training provided at Al-Azhar Islam Plus Elementary School. Al-Azhar Islam Plus Elementary School is committed to providing a good education using technology. However, teachers still need help creating interesting and effective learning media, especially those encouraging students to think critically, be creative, and analyse deeply.

In light of these problems, it is important to understand that VideoScribe, a HOTS-based learning media, can be an effective alternative to improve the quality of learning at Al-Azhar Islam Plus Elementary School. VideoScribe creates visually appealing content and encourages students to think critically and engage in an interactive learning process (Aruna et al., 2022). However, the successful use of HOTS-based videoScribe learning media in schools largely depends on teachers' ability to create and incorporate this media into the learning process. Consequently, this implementation aims to teach teachers at Al-Azhar Islam Plus Elementary School how to create videoScribe and use HOTS elements when creating learning content.

This program has explicitly the projection of developing innovation in the learning process at Al-Azhar Islam Plus Elementary School to be more interactive and exciting and motivate students to think critically and creatively with the ability of teachers to create HOTS-based videoScribe learning media (Iriaji et al., 2023). In addition, videoScribe learning media can improve students' understanding of concepts, enhance learning experiences, and facilitate student-centered learning.

Specifically, this implementation is expected to assist Al-Azhar Islam Plus Elementary School teachers in operating Sparkol's VideoScribe software to create HOTS-based learning videos. Through the training process, they are expected to incorporate technology into learning, improve students' critical and creative thinking skills, and improve the learning process at school. In addition, this service has the potential to contribute to the development of innovative and efficient learning approaches in the modern educational environment by improving the skills of elementary school teachers in understanding High Order Thinking Skills (HOTS) in student learning and being able to create Sparkol VideoScribe-based learning media. This can be measured through the results of filling out the teacher post-test and the learning videos created.

**METHOD**

The Asset-Based Community Development (ABCD) method is an approach that emphasises leveraging community resources to achieve development goals (Al-Kautsar, 2019; Blickem et al., 2018). Teachers at Al-Azhar Islam Plus Elementary School can use ABCD as a basis for developing training on making VideoScribe learning media based on higher-order thinking Skills or HOTS. To help teachers discover and utilise the potential of the community, this training...
introduced the concepts and practices through 5 stages (detailed in Figure 1, ABCD Method). This method is expected to encourage teachers to identify resources such as local knowledge, skills and experiences that can be used to create videoscribe learning media. Teachers were guided to link HOTS-based approaches with intellectual property and community creativity through this training process. Integrating the ABCD method with HOTS-based videoscribe learning media-making training aims to improve understanding outcomes through technical life skills. The detailed steps for implementing this service program are shown in Figure 1.

RESULTS AND DISCUSSION
Implementation Process
At the beginning of the activity, the Focus Group Discussion (FGD) focused on finding and understanding problems related to making interactive, engaging, and effective learning media using existing technology. The discussion, which involved many experienced teachers, education practitioners and facilitators, aimed to describe the problem thoroughly and from various perspectives. Participants in this FGD activity actively talked about actual problems, challenges, and needs related to learning media development (Adventyana et al., 2023). To ensure that the discussion remains focused on the topic and its main objective, the facilitators thoroughly recorded all information, opinions, and inputs submitted. Figure 2 shows the atmosphere during the FGD.

Figure 1 ABCD Method

Figure 2 FGD mapping problems and solution options
This FGD results reveal the problems and offer solutions. To evaluate and create appropriate implementation strategies, SWOT analysis and other analytical methods can be used. The data and information collected are used to create training programs and teaching materials. The ultimate goal is to improve the ability of Al-Azhar Islam Plus Elementary School teachers to create innovative and creative HOTS-based Videoscribe learning media to suit the learning needs of students in today’s digital era.

The training activities in this service are specifically designed to introduce teachers to how to use Videoscribe Sparkol software to create interactive learning media that prioritises HOTS. The training began with theoretical material on introducing HOTS, theories about Videoscribe, graphic design principles, and how to incorporate HOTS into visual media (Astriani & Alfahnum, 2022). The activity began with the delivery of material by a team of experts, namely lecturers from the State University of Malang, who were specifically invited to provide a comprehensive understanding of HOTS material and its application to learning at the elementary school level. The atmosphere during the material explanation related to HOTS is shown in Figure 3.

The presentation of HOTS-related materials included tips and tricks in implementing HOTS simply and easily in the classroom. To support this, several media and tools were used, such as straws, markers, and sticky notes. The speaker interactively invited the teachers to practice the implementation of HOTS, one of which is by creating a gratitude board in the classroom by writing grateful things on sticky notes and then attaching them to the board or wall magazine in the classroom. In addition, one of the HOTS implementations taught was to encourage students to work in teams and explore by making buildings from many straws given to students. In this training, the training participants, namely teachers, were asked to practice the implementation of HOTS in groups. The teachers' activities in practising the results of the HOTS implementation briefing in the classroom can be seen in Figure 4.

The last briefing in this service activity is training in making teaching videos using Videoscribe Sparkol software. The briefing begins with an introduction to the tools in the Videoscribe Sparkol software and how to use them. The briefing was conducted by experienced tutors, who were design experts invited from the State University of Malang. Furthermore, the teachers were allowed to do hands-on practice with assistance and direction from the tutors. During the practice, participants were given step-by-step instructions, from program installation and feature exploration to approaches to building successful visual narratives. Each teacher was allowed to create their independent learning media. The results are presented and assessed collectively. Figure 5 shows the atmosphere when teachers are
practising operating the Videoscribe Sparkol software during the training session.

Figure 5 Structured videoscribe practice

This community service activity is important in improving the quality of learning at Al-Azhar Islam Plus Elementary School. The training is expected to help teachers create learning media that are not only visually appealing but can also help students more effectively transfer complex knowledge and skills (Setiani et al., 2023). In addition, teachers are also trained to insert HOTS aspects in the learning videos that will be developed in the future. Applying HOTS in learning media aims to increase students' ability to think critically, creatively, and innovatively (Hasan & Baroroh, 2020). This can add value and meaning to the learning process in the classroom and positively impact achieving learning objectives.

This program is a community service activity to improve teachers' insights and skills regarding applying HOTS in making videoscribe media. The process and technicalities of this activity provided teachers with materials and training on how to use videoscribe to create, create, and implement effective learning media. Videoscribe is a tool that can improve students' thinking skills (Hermawan, 2021). In addition to improving teachers' ability to use technology and HOTS principles in the learning process, this activity also aims to improve students' ability to think creatively, critically and analytically. The specific expectation is for this training to be a platform where teachers can collaborate, innovate, and share ideas to develop more interactive teaching methods, attract students' attention, and prepare them with the skills needed in the 21st century.

This technique involves using assessment and evaluation tools to measure the extent to which teachers can apply the skills and knowledge gained from the training in their daily teaching practices. In collecting data, the community service team used observations, surveys, and interviews on using videoscribe media and its incorporation in HOTS implementation. The teachers are also given 2 weeks to try to develop learning videos based on the materials that have been provided during the training process. The activity was conducted to ensure that teachers' skills and knowledge had been improved through the training. Figure 6 is a documentation of the activities after the evaluation of the process and outcomes of the training program that has been implemented.

Figure 6 Documentation after program implementation

The results obtained at the process and outcome evaluation stage were used to determine which parts of the training program need to be improved, adjusted or strengthened. This allows the training program to be continuously improved in order to meet emerging needs and challenges. This monitoring process also aims to find best practices and innovations in using HOTS-based videoscribe media. The results of the evaluation of the understanding of Al-
Azhar Islam Plus Elementary School teachers can be seen through the results of the post-test given at the end of the meeting. The tabulation of the post-test results can be seen in Table 1.

Table 1. Tabulation of Post-Test Score on HOTS Materials

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
<th>T6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What is HOTS?</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>2.</td>
<td>Why is HOTS important in the learning system?</td>
<td>0</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>What are the benefits of HOTS for learners?</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>4.</td>
<td>How do you differentiate between HOTS and LOTS?</td>
<td>5</td>
<td>9</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>5.</td>
<td>Do HOTS questions mean difficult questions?</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>10</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>How is HOTS applied to elementary school students?</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>How do you familiarise yourself with the learning model and also HOTS questions? (from the teacher's side)</td>
<td>0</td>
<td>7</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>8.</td>
<td>How do we create learning media that contains HOTS?</td>
<td>0</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>9.</td>
<td>Can HOTS learning be applied to all students?</td>
<td>0</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>10.</td>
<td>What are the aspects of HOTS?</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

**Total Score** 43 84 91 86 90 82

The results of the post-test related to HOTS material show that 5 out of 6 teachers who participated in the HOTS material briefing obtained scores above 80, or it can be said that 83% of the teachers who participated in the training have been able to understand the basic things about HOTS in accordance with the material presented by the speaker. In addition, at the end of the training activities, two learning videos were made by Al-Azhar Islam Plus Elementary School teachers, namely on citizenship and Arabic materials. In making the video, teachers worked in groups to maximise the efficiency of video-making time. Creating two learning videos from using VideoScribble Sparkol shows that teachers have successfully understood how to operate VideoScribble Sparkol software.

It is hoped that in the future, teachers can utilise this new skill to create interactive and interesting learning media to support students’ learning process in the classroom. The innovation of VideoScribble Sparkol learning media creation training and also the application of HOTS material is worthy of being a reference for other service activities to improve teacher skills in various other regions.

Teacher Training in Developing HOTS-Based VideoScribble at Al-Azhar Islam Plus Elementary School

This community service aims to improve teachers’ ability to create HOTS based VideoScribble learning media to be used in training at Al-Azhar Islam Plus Elementary School. VideoScribble, an engaging and interactive visual media, combines images, text, and animation to enhance student understanding. However, to maximise the potential of this media, it requires specific skills in managing and creating content relevant...
to learning objectives (Aruna, Inayah et al., 2021; Aruna, Ishlah et al., 2021).

This community service program team conducted special training at Al-Azhar Islam Plus Elementary School to improve teachers’ skills. The training covered a basic understanding of HOTS concepts and included strategies and techniques to create Videoscribe learning media that can encourage students to think critically, such as creating, analysing, and evaluating. During the training, teachers were taught to use Videoscribe software effectively, such as timing the animation, drawing objects well, and connecting ideas clearly (Sitompul et al., 2023).

They were also taught how to select content that suits the learning objectives and integrate it into existing lesson plans. This training is expected to improve the quality of learning at Al-Azhar Islam Plus Elementary School as it helps teachers use HOTS-based Videoscribe learning media better (Jundu et al., 2023). They can create content that is engaging, interactive, and relevant to students’ needs to develop higher-order thinking skills.

The ABCD method was used to develop teachers’ skills at Al-Azhar Islam Plus Elementary School. At the discovery stage, it was found that the school needed more inventive teaching methods. There are several benefits that teachers and students at Al-Azhar Islam Plus Elementary School can gain from developing teachers’ ability to create HOTS-based videoscribe learning media. First, video scribe as a learning media allows teachers to enhance their teaching methods with interesting and interactive visual elements (Amin, 2019). The hand-drawn animations that Videoscribe uses attract students’ attention and help explain complicated concepts more understandably. Videoscribe, a HOTS-based learning media, can also improve students’ thinking skills. Teachers can use videoscribe to incorporate HOTS elements such as creation, analysis, and evaluation to stimulate students to think creatively, analytically, and critically (Wicaksono et al., 2021). This helps students develop deep thinking skills and go beyond a superficial understanding of concepts.

Through this activity, teachers at Al-Azhar Islam Plus Elementary School can organise learning materials more innovatively and relevantly concerning what students need in the classroom. Teachers can adapt learning methods to students’ learning styles and enable the incorporation of various multimedia, text, and graphic elements in videoscribe to make learning fun and effective (Marcelliantika et al., 2022). Training teachers to create HOTS-based videoscribe learning media can also benefit students in the long run (Istiqomah et al., 2021).

Students can use videoscribe to increase their involvement in the implementation of the learning process, engage their imagination, and improve critical and creative thinking skills as a provision for students in facing the career and academic world in the coming period. Applying HOTS-based videoscribe learning media can be an example and inspiration for other educational institutions, in addition to providing benefits for teachers and students. The use of technology in learning in the era of growing information technology is very important (Aruna et al., 2022). Al-Azhar Islam Plus Elementary School can be a reference for other schools and educational institutions in terms of utilising technology to improve learning quality and students’ thinking skills by utilising the video scribe and the HOTS approach. At Al-Azhar Islam Plus Elementary School, this service activity was carried out to increase teachers’ knowledge and insights to create HOTS-based videoscribe learning media. Through this training, teachers are expected to
integrate technology and HOTS approach into the learning process, build exciting and enjoyable learning experiences for students, and encourage other educational institutions to implement effective and innovative learning approaches.

HOTS-based videoscribe learning media can positively impact the entire school environment and benefit teachers and students (Nurhikmah et al., 2023). First, using technology in the learning system can make the learning atmosphere more dynamic, interesting and fun for students. This can significantly affect students' interest and motivation in learning, making them more active and enthusiastic inside and outside the classroom. With videoscribe as a learning tool, learning can be more inclusive and fun. Video scribe is an effective tool for conveying information in a simpler way to students with varied learning styles so that it is easier to understand. To deliver subject matter, teachers can use animation, text, images and sound to help students with different levels of understanding and learning needs respond better (Yudhi & Husna, 2023).

HOTS-based videoscribe learning media can help create a creative and cooperative learning culture. Teachers can involve students in content development, ask them to contribute innovative ideas and work together in teams to create informative and interesting videos. This can encourage students to work together, improve their cooperation skills, and enhance their ability to find new solutions and ideas. The application of HOTS-based videoscribe learning media may have a greater effect than just impacting the school environment (Nafisah & Pramudiani, 2023). The videoscribe that has been created can be shared through online platforms or social media so that students worldwide can see it and use it as a useful out-of-class learning resource.

This fact happens in the digital era and the easily accessible internet. Through this training, teachers can master the technique of creating learning media through videoscribe and understand how to incorporate HOTS elements into the content created. This is expected to improve the quality of education, add value to learning, and prepare students with critical, analytical, and creative thinking skills needed in the modern era. Firstly, video scribe is an effective tool for presenting the subject matter visually and interactively, which can build a favourable impression of learning in students. With clear and interesting visualisations and narratives, this innovative technology can convey information related to complex concepts in learning more simply to students so that they can be easily understood. Secondly, adding HOTS to videoscribe changes how teachers deliver lessons and how students receive and process data. Students acquire more creative and critical thinking skills. They are more engaged in learning, solving problems, making decisions and developing new ideas. This helps them prepare for the capabilities so important in the 21st century. Third, the training enhanced teachers' capacity by providing them with the knowledge and skills to apply technology and HOTS in learning. This increases teaching effectiveness, enriches students' learning experience, and improves overall learning outcomes.

This HOTS-based video scribe development plan can be incorporated into other schools through a long-term process. Teachers who have been trained can share their knowledge and skills with teachers in other schools, directly impacting the quality of education. Meanwhile, feedback and evaluation from the initial implementation were used to refine the training module, which made it more efficient and productive. On a larger scale, such an initiative can serve as a model for national education.
reform, helping to integrate technology and HOTS into the curriculum and teaching methods and preparing Indonesia’s young generation for the challenges and opportunities ahead.

CONCLUSION
Training and development in improving HOTS videoscribe skills were provided to Islamic Elementary School Plus Al-Azhar Malang City teachers. This training consisted of several training sessions, where teachers were first taught about HOTS material in theory. Teachers were given material related to animation, how to use Sparkol Videoscribe software, and how to create learning videos by applying HOTS principles. The training results showed that 83% of the teachers who participated had a fairly good understanding, as evidenced by the post-test results, which had scores above 80. In this training, teachers also made two videos after the training as a result of implementing the material provided during the training. By utilising digital technology as a learning tool, the implementation of this community service activity has become a means of developing teacher skills and creating a more innovative and successful learning process in the future.

Acknowledgements
The implementing team is grateful to the sole source of funding for the implementation of activities through the Non APBN State University of Malang in 2023 and the implementing partner, Al-Azhar Islam Plus Elementary School.

REFERENCES


sdn malangrejo. *Community Empowerment*, 6(1).


