

Assistance in Utilizing E-student worksheets Teaching Materials with Live Worksheet Application Support for Critical Thinking in Elementary School Teachers

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Abstract: Current teaching practices still rely on printed images and text materials. This is due to the need for educators' ability to develop digital-based learning materials, resulting in students often becoming bored during lessons. Additionally, the abstract nature of the learning material often requires further explanation. This community service aims to assist elementary school teachers in utilizing e-student worksheets teaching materials with the support of the Live Worksheet application. This community service employs the Community Based Research (CBR) model through training and mentoring. The results show an improvement in the competency of elementary school teachers in utilizing e-student worksheets as teaching materials.

Keywords: e- student worksheets; live worksheet; teacher; teaching materials

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INTRODUCTION

Information and communication technology in this era plays a strategic role, including in education (learning). Online learning (in a network) that has been implemented is a direct and inevitable implication of the progress of the times and the demands of the COVID-19 pandemic. Online learning, popularly known as e-learning, uses the web to access student access, whether at home, at school, and in face-to-face or virtual settings (Misbah et al., 2023; Sutabri, 2012). This also challenges teachers in planning, implementing, and evaluating online learning.

Recently, the Permendikbudristek No. 17 of 2021 on National Assessment aims to measure cognitive and non-cognitive learning outcomes and the quality of the environment at the primary and secondary education levels. Educators and students are "forced" to adapt to implementing the minimum competency assessment, which takes the form of student reports to reflect the quality of schools/madrasahs. The minimum competency assessment evaluates students' literacy and numeracy skills (Permendikbudristek No.17, 2021: 3-4). Based on these challenges, educators need innovation to

provide questions that meet the needs of the minimum competency assessments, ranging from simple to complex multiple-choice questions, matching or pairing, short answers, and essays. This must utilize information and communication technology, such as mobile phones, that students can access without space and time limitations. Using Chromebooks at school and mobile phones at home becomes a collaboration that can be maximized. An alternative solution is the utilization of electronic Student Worksheets known as e-student worksheets. E-student worksheets, an electronic learning system (e-learning), is a new way to investigate and solve learning problems (Lestrai et al., 2021; Trianto, 2015).

Student Worksheets guides students in learning a concept, enabling them to solve a problem (Misbah et al., 2018; Yulia et al., 2018). Learning becomes engaging and appealing to students if presented electronically using laptops or smartphones. Therefore, the creation of electronic student worksheets is highly anticipated to help students better understand the material. E-student worksheets can be designed with the aid of the Live Worksheet application. Live Worksheet is an application that can be used to design electronic-themed student worksheets; it is advantageous because it is attractive and practical to use and access. Educators need to enter the website and follow the steps, and the student worksheets will be ready for use. The function of student worksheets is to make it easier to evaluate the teaching process, serve as teaching material that helps save educators' efforts, and optimize student learning (Prastowo, 2015: 205).

Teaching materials are divided into several types: printed and non-printed materials. Printed teaching materials include books or reading texts, modules or lecture notes, student worksheets, photos/images, and so on, whereas non-

printed teaching materials include audio and video for teaching and learning, interactive films and documentaries, animations, and other materials presented from the internet (Prastowo, 2015: 205). Student worksheets are part of teaching materials and can serve as learning media used simultaneously (Pulungan et al., 2020).

The use of electronic teaching materials in the form of e-student worksheets in Elementary Schools or Madrasah Ibtidaiyah has proven effective based on several previous studies, including research by Tarisna & Suma (2023), Suryani & Rini (2023), Wahono et al., (2022), Damayanti et al., (2022), Puspita & Dewi (2021). Furthermore, e-student worksheets utilizing the Live Worksheet application has also been proven effective through several previous studies, such as research on science content by Nita (2024), Al Asmaryadi et al., (2022), mathematics material by (Hilmi et al., 2022), (Prayoga, 2022), HOTS (A Syachruraji et al., 2023), (Rahayu, et al., 2021).

In fact, whether printed or electronic, teaching materials in the form of student worksheets have been shown to improve learning outcomes and train students' critical thinking skills. The learning process requires critical thinking skills to achieve effective learning. Ideally, learning media can enhance critical thinking skills in line with the demands of 21st-century learning, where students need critical thinking abilities (Suroiha et al., 2021).

Critical thinking is the ability to think logically and systematically when making decisions or solving problems that students must master. It is an orderly process used in solving problems, making decisions, analyzing assumptions, and conducting scientific research. This skill is essential for students as it enhances their mastery and understanding of learning material and

helps them solve encountered problems. Additionally, critical thinking is a profound, reasonable, skilful, and reflective way of thinking about existing issues (Johson, 2007).

This also emphasizes the benefits of e-student worksheets as teaching material with its advantages and represents an innovation we are introducing, considering that there has yet to be ICT-based teaching material utilization in the form of mentoring for elementary school and madrasah teachers. Previously, mentoring was provided as training for junior high school teachers (Herpratiwi *et al.*, 2023), and senior high school/vocational school teachers (Mansur *et al.*, 2019; Marhaeni & Fitri, 2023).

Our previous community service in 2022 with MIN teachers in Padang City indicated that most madrasah teachers desired teaching, training, and mentoring for teachers. The innovation in our mentoring is the utilization of ICT-based teaching materials.

METHOD

The community service was conducted in Nagari Sungai Sarik, Padang Pariaman, involving all four public elementary schools in the area: SD N 12 in Kampung Bendang, SD N 15 in Buluh Kasok, SD N 23 in Sungai Ibur, and SD N 35 in Sungai Sarik.

The selection of public elementary school teachers in Nagari Sungai Sarik, Kecamatan VII Koto, Kabupaten Padang Pariaman, was based on several considerations: 1) the Nagari is one of the assisted nagaris in the UIN Imam Bonjol Padang students' Community Service Program, 2) the elementary school level has been a stakeholder for the PGMI (Primary School Teacher Education) program at FTK UIN Imam Bonjol Padang, 3) this year's community service program is integrated with the assisted nagaris of the Community Service Program based on Rector's

Decree No. 1102 of 2023 on the Guidelines for the Implementation of the Community Service Program at UIN Imam Bonjol Padang. Based on this, (Herawati, 2011) stated that educators (teachers/lecturers/tutors) with a TPACK mindset seek effective learning, forming the foundation of this service. The service was conducted at SDN 12 on Saturday, August 19 and 26, 2023.

This service uses community service or Community Based Research (CBR) principles. CBR is a research service model that prioritizes community needs and integrates various community elements to actively participate in research to address challenges within their community environment. The university conducting this research does not act as a controlling subject but as a community partner, facilitating research conducted together with the community (Susilawaty *et al.*, 2016: 3). There are four stages of CBR, explained in Figure 1.



Figure 1 Four stages of CBR

In the community model or CBR, this service employs the PAR method, or research involving active participation as a follow-up (Hanafi *et al.*, 2019). The stages of the service include: (1) Preliminary mapping, (2) Building human relationships, (3) Determining the research agenda for social change, (4) Participatory mapping, (5) Formulating humanitarian issues, (6) Developing movement strategies, (7) Organizing the community, (8) Launching change

actions, (9) Building community learning centers, (10) Reflection (theorizing social change), (11) Expanding the scale of the movement and support (Research-Based Community Service Workshop at LP2M UIN Maulana Malik Ibrahim Malang on February 22, 2020).

RESULTS AND DISCUSSION

The community service program consisted of training. The implementation of the mentoring was integrated into the UIN Imam Bonjol's Community Service Program. The mentoring began with the preparation phase, including preliminary studies and communication and coordination with various parties, such as communicating and coordinating with the Head of Nagari Sungai Sarik, Mr Zaiful Yudi.

The research team then coordinated with the heads of the public elementary schools in Nagari Sungai Sarik. The discussion revealed that many school grade levels have only one class. This is because many students attend schools outside their residential area. Factors causing students to study outside include a lack of facilities and infrastructure in the schools, unengaging learning, and teachers' limited ability to integrate technology into learning. Consequently, the school heads suggested teacher training or mentoring to enhance the school's quality.

The proposed mentoring for teachers involved training on using ICT in teaching. This training was conducted over approximately two months (from July to September 2023). The mentoring activities began with a discussion and collaboration with the heads of the elementary schools in Nagari Sungai Sarik on Saturday, August 19, 2023, followed by training on Saturday, August 26, 2023. The service implementation was assisted by resource persons, instructors, and a team from the Faculty of Education and Teacher

Training at UIN Imam Bonjol. This mentoring aimed to describe the competencies of public elementary school teachers in Nagari Sungai Sarik in using ICT-based learning media and to train teachers to use ICT-based learning media, particularly the Live Worksheet application for teaching.

As an introduction, at the beginning of the training, teachers have explained the background and objectives of the activities. This was followed by material on the role and urgency of ICT-based learning media in the current era, an introduction to the Live Worksheet application, registering an account, and operating it. The steps to register for a Live Worksheet account are as follows:

1. Open a browser (Google Chrome) and go to the website <https://www.liveworksheets.com/>.

Once the Live Worksheet page opens, the first step is to sign up for an account in the signup menu.

2. Click on signup, and the initial display will appear as follows (Figure 2):



Figure 2 Initial display of live worksheet

Before filling out personal data, it is necessary to ensure the user's position, whether as a student or teacher, as this affects the operational menu.

3. Next, click "Teacher" to mark yourself as a teacher user (Figure 3).



Figure 3 User options: teacher or student

- A form will appear, and new users of the Live Worksheet must fill that out.
- Then, fill in the complete data. The email entered should be logged in and used on the user's laptop (Figure 4).

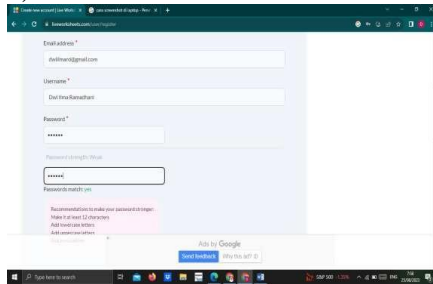


Figure 4 User identity

Fill in the requested personal data accurately and follow the instructions provided (Figure 5).

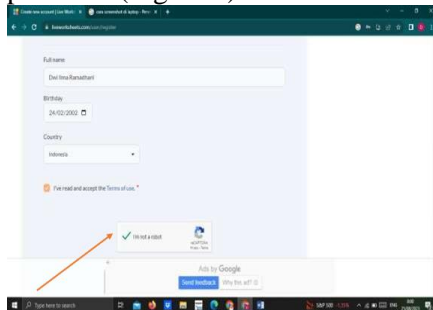


Figure 5 Initial display of live worksheet

Click and check "I'm not a robot" to verify that the user is a real person. Then select "Create a new account" (Figure 6).

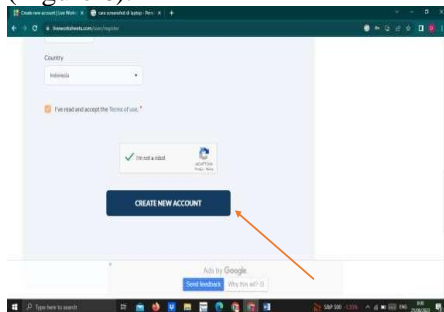


Figure 6 User confirmation

After creating a new account, a notification message will be sent to the previously entered email. Check the email for further confirmation.

- Next, log into Gmail and open the inbox message from Live Worksheet. Then click the registration link (Figure 7).

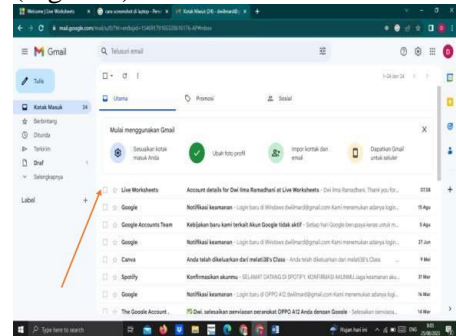


Figure 7 Confirmation and synchronization with user email

Next, open the email to verify the data by clicking the embedded link in the email, as shown in Figure 8.

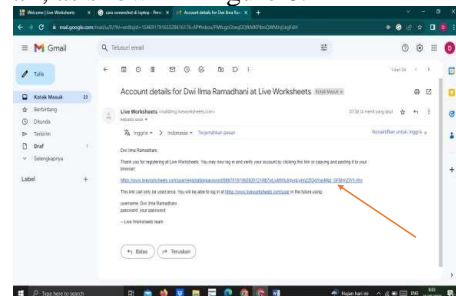


Figure 8 Link to live worksheet

After clicking the link, the user will be returned to the initial worksheet display.

- Your account is now registered with Live Worksheet (Figure 9).

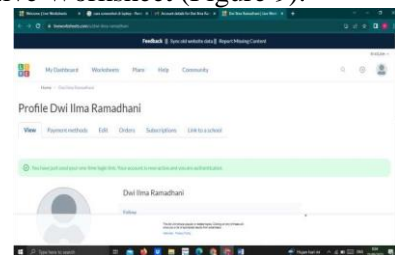


Figure 9 Live worksheet sign-in display

After this, teachers were guided to utilize the Live Worksheet application

for various materials, such as the theme "The Beauty of Togetherness," starting lessons with "Bismillahirrahmanirrahim", and more. Teachers attended the training with great enthusiasm and interest. According to them, this training can develop teachers' innovation and creativity in using ICT-based media, including the Live Worksheet application. This can be seen in the Figure 10.



Figure 10 Atmosphere of teachers creating e-student worksheets using the live worksheet

The community service activity greatly benefited the participants, which introduced them to Live Worksheet. Live Worksheet itself is a learning medium used for instructional purposes. According to Heinich (Rusman, 2011: 169), media are communication channel tools. ICT-based learning media are components of instruction that contain educational material for students through information and communication technology (Rusman, 2011).

Various studies show that the most effective learning media to improve the

quality of education in the current era of globalization involves the use of information and communication technology (ICT) (Rusmana & Isnaningrum 2009). Live Worksheet is a medium that offers online presentation creation services with several very interesting animation features, such as handwritten animations, cartoon animations, and more vivid transition effects. These features make the timeline arrangement easy to understand.



Figure 11 Documentation of the activity

An evaluation of the results or products, in the form of Live Worksheet applications created by the teachers, showed that all the teachers could use the Live Worksheet application program and utilize it to summarize lesson materials. The results are attached in the appendix. Based on the training objectives, the community service goals were successfully achieved. This activity was carried out smoothly thanks to the optimal support from the faculty, resource persons, elementary school principals and teachers in Nagari Sungai Sarik, instructors, and participants. This can be seen in the following Figure 12.

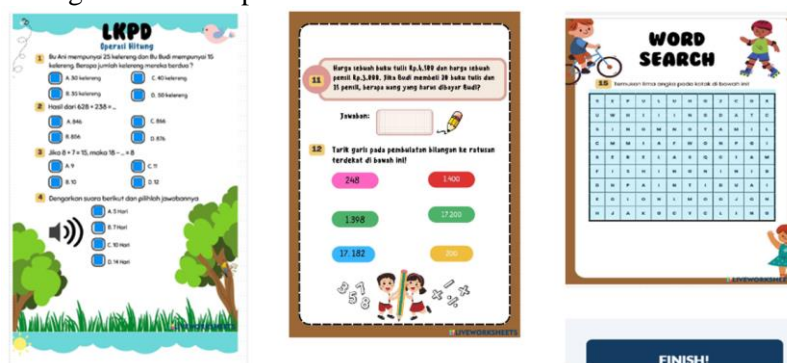


Figure 12 Teacher e-lkpd products using live worksheet

CONCLUSION

From the results of the community service described above, it can be concluded that the competency of public elementary school teachers in Nagari Sungai Sarik in using the Live Worksheet application as a learning medium is categorized as good. The perception of public elementary school teachers in Nagari Sungai Sarik after receiving guidance on using the Live Worksheet application as a learning medium was enthusiastic and beneficial and gave the impression that it should continue to the next training session.

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