

E-Worksheet Thematic Learning Based HOTS for Student Grade

4

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E-WORKSHEET THEMATIC LEARNING BASED HOTS FOR STUDENT GRADE 4

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Abstract

Purpose: The use of printed worksheets so far tends to make students get bored quickly, less active in learning and less able to improve students' thinking skills of high order that known as High Order Thinking Skills (HOTS) abilities. Learning with the help of multimedia can motivate and attract students' attention when studying, so that students can increase students' enthusiasm in learning. Their The purpose of this study is to develop E-LKPD based on HOTS and to test the feasibility of the media, language, material presented in the E-LKPD and to test the practicality and effectiveness of using the E-LKPD to teachers and students.

Methodology: The type of research is R&D (Research & Development) using the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation). The development is carried out on the material of Theme 8 Sub-theme 3 Learning 3 Class IV. Testing the feasibility of E-LKPD researchers distributed questionnaires, conducted interviews and documentation of the use of E-LKPD and then analyzed the data that had been obtained.

Findings: The results of the analysis of the development of E_LKPD by material experts get an average result of 93.0 with a very valid category. The results of the analysis by media experts get an average value of 81.7 with a very valid category. The results of the analysis by linguists get an average value of 85.6 with a very valid category. E-LKPD is proven to be able to improve students learning outcomes and is practical and effective for use in the learning process.

Significance: By clarifying the roles played by E-LKPD and how software Kvisoft Flip Book Maker as a tool can promote E-LKPD, this study offers insight to those who wish to use E-LKPD as a medium to foster self-regulated learning, meaningful learning, and upgrade students critical thinking. The results of the meta-analysis data may also help researchers to explore this area of study.

Keywords: Electronic LKPD, HOTS.

Introduction

The teaching and learning procedure of implementation in the 2013 syllabus cannot be separated from the use of learning resources in the formation of student books, teacher books, and Student Worksheets (LKPD). One of the means to assist and facilitate teachers in teaching and learning activities to form effective interactions between teachers and students is to use the Student Worksheet (LKPD). LKPD according to the Ministry of National Education is a sheet containing tasks that must be done by students. The advantage of using LKPD is to make it easier to carry out learning. LKPD can now be used in the form of soft files or online. However, the Electronic Student Worksheet (E-LKPD) in its use, especially in elementary schools, is still not optimal. Printed worksheets that have been used in schools tend to make students feel bored quickly and seem more monotonous. Based on the results of the analysis of LKPD needs, students in elementary schools still reach the level of cognitive Low Order Thinking Skill (LOTS) at levels C1-C3, meaning they have not yet reached levels C4, C5, and C6 (Ladamay et al., 2021).

Therefore the LKPD of elementary school students must be developed. LKPD development by switching to using Electronic LKPD and increasing the level of questions in LKPD at C4, C5, and C6 cognitive levels according to 2014 Regulation of Education and Culture Ministry Number 61 shows that teachers should do HOTS learning, therefore the process of teaching and learning can provide a more meaningful experience to students because students are stimulated to always be creative in solving problems in learning that spur students to always think critically and innovatively such as learning Higher Order Thinking Skill (HOTS) (Majid, 2014).

Thinking skills of higher order or HOTS (High Order Thinking Skills) are abilities that must exist in every student (Darmawan & Wahyudin, 2018). Winarso stated that higher-order thinking skills are not only memorizing formulas, then applying the formulas to problems, but students must also be able to analyze the problems then solve them into several parts and connect the parts with several other parts (Winarso, 2014).

Based on the description of the background above, this research purpose is to develop Interactive Electronic LKPD Thematic Learning based on High Order Thinking Skill with the help of Kvsioft Flip Book Maker software. This interactive multimedia software application can convert PDF files into pages, which you can open like a conventional book. This software can change the PDF files appearance to be more attractive like traditional books in digital form and is proven to be effective and good utilization the learning process (Rasiman. & Pramasdyahsari, 2014). This application allows students to work on questions by viewing audio and video related to the material being taught. In that way students in terms of learning are more interested and enthusiastic, especially in thematic learning.

RESEARCH METHOD

This is a development research utilizing the (Analysis, Design, Development, Implementation and Evaluation) ADDIE model. The goal is to produce new products or develop existing products for the learning process in schools and test the products developed efficacy. The stages of the ADDIE development model are as in the follow in Figure 1. The ADDIE model is a perfect model from the initial problem analysis stage, learning media design, media experts and material experts validating learning media to analyze whether or not a media design is feasible or not worth implementing. Each stage of the ADDIE model is always evaluated for the improvement of learning media.

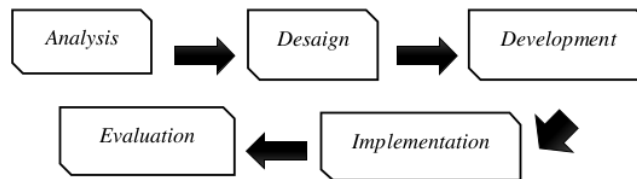


Figure 1. ADDIE Model

The instrument grid for validation by material experts, media experts, linguists and practitioners is as follows.

Table 1

Material Expert Validation Instrument Grid

No.	Indicator
	Content Eligibility
1.	Presentation Techniques
2.	Presentation Support
3.	Learning Presentation
4.	Presentation Equipment
	Material Eligibility
5.	Material Compatibility with KD Developed
6.	Material Accuracy
7.	Material Update
	Language Eligibility
8.	Comutatif

Table 2

Media Expert Validation Instrument Grid

No.	Indicator
1.	Language
2.	Presentation
3.	The Effect of Media on Learning Strategies
4.	Full view

Table 3

Linguist Validation Instrument Grid

No	Indicator
1.	Presentation
2.	Language Ease
3.	Language Standart

Table 4

Practitioner Validation Instrument Grid

No	Indicator
1.	Conformity of Title with Content of E-LKPD
2.	Language
3.	Media
4.	Motivation to learn

Table 5

Final Assessment Criteria

Achievement Percentage	Information
3,26 – 4,00	Very Valid
2,51 – 3,25	Valid
1,76 – 2,50	Less Valid
1,01 – 1,75	Not valid

This E-LKPD development activity was started by conducting FGDs. The FGD was conducted by 21 research team with elementary school teachers to identify the need for textbooks in schools. Based on the needs analysis in elementary schools, it was found that teachers still had difficulties in carrying out teaching and learning activities in accordance with the 2013 Curriculum, whose learning activities were student-centered, but in practice it was difficult to do. Several factors that affect the difficulty of implementing the 2013 Curriculum, are the LKPD teaching materials published by the government, the contents of the LKPD are not in accordance with the characteristics of students and the physical appearance of the LKPD is very simple. The play design of the E-LKPD is realized in diagrams/flow charts and storyboards. This E-LKPD uses the Kvisoft Flip Book Maker software. Kvisoft Flip Book Maker is more attractive like a conventional book in digital form. Furthermore, the research team also coordinated with TPM for the design of the E-LKPD. The developed E-LKPD was then validated.

RESULTS AND DISCUSSION

The results of this development research are E-LKPD teaching materials based on High Order Thinking Skills (HOTS) are simple and easy to access. The display of the developed E-LKPD is shown in the following figure.

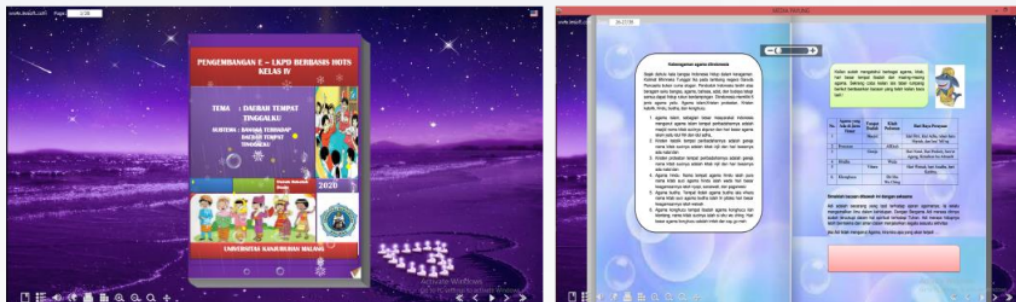


Figure 1. High Order Thinking Skill (HOTS) based on E-LKPD Thematic Learning Using Kvisoft Flip Book Maker Software

High Order Thinking Skill (HOTS) based on E-LKPD Thematic Learning Using the Kvisoft Flip Book Maker software, which has been developed successfully, then a validity test is carried out by expert validators to determine the validity and practicality of the E-LKPD product that has been developed. Validation was carried out by three experts, namely material experts, linguists, and media experts.

The validation test results by material experts obtained an average value of 93.0 that means in the Likert Scale the development of E-LKPD has material that is "very valid". As criticism and suggestions from material experts, they are used to improve/refine this E-LKPD. The results of the validation by media experts obtained an average value of 81.7 including the "valid" category. This meets the standard of validity on the Likert Scale, so the development of the E-LKPD is declared "good". Likewise, the results of validation by linguists obtained an average score of 85.6 E-LKPD based on HOTS is declared "valid". This meets the standard of validity on the Likert Scale, so the development of this E-LKPD is declared "good". Apart from the validation from the experts, there are also the results of the teacher's response along with the results of the teacher's response questionnaire, it can be stated that the HOTS-based E-LKPD development can be declared "interesting".

The only learning resources used by teachers at SDN Bandungrejosari I so far are teacher and student handbooks. This makes students tend to be bored to learn it. However, through this research, researchers have succeeded in developing electronic HOTS-based thematic learning worksheets so that students can be more interested, active and critical in the learning process because in this E-LKPD there are many pictures and they can also play audio/video. The development of learning media in the form of E-LKPD offers many benefits. E-LKPD makes it easier access digital content for readers, has an effortless distribution procedure, a backup and process of storage that is not complicated and can be a replacement to repetitive printed books (Yasa et al., 2018).

The development of E-LKPD that utilizes this technology can create effective learning. The presentation of the E-LKPD is not only limited to pictures but also includes audio and video to complete students' understanding of the material. E-LKPD is more attractive than printed LKPD, besides that its use is also easy and flexible. The material presented in the E-LKPD is made attractively according to the thematic learning characteristics in the 2013 Curriculum and includes High-Order Thinking Skills (HOTS).

Ability of thinking High-level or HOTS is an ability that must exist in every student. High-level thinking skills are not only memorizing formulas and then applying the formulas to problems, but students must also be able to analyze the problems that exist in the questions then solve the problem into several parts and connect these parts with several other parts. The hallmark of HOTS learning is

critical thinking. Critical thinking is how students solve an interrelated problem. By thinking critically, students will find the truth from the information around them.

The thematic learning developed into E-LKPD content is a model of integrated learning process that involves various subject elements that are combined into one theme. Thematic learning can give significant experiences for students, it is said to be worthfull because in the learning of thematic, students can understand the concepts through direct learning experience and relate them to the concepts that taught in class. In thematic learning, the focus is on the process that students take when trying to understand the content of the lesson in line with the forms of skills that must be developed. Thematic learning is a learning system that allows students both individually and in groups to actively explore and discover scientific concepts and principles in a holistic, meaningful and authentic way.

On the basis of High Order Thinking Skills (HOTS) for E-LKPD thematic learning supports contextual learning models that are contemplated necessary as a teacher's solution in students' independence training, being active and able to think critically so that they can improve students learning results (Subekti & Suparman, 2019). Learners' learning skills are influenced by contextual practice questions (Graser et al., 2019). The results of the E-LKPD need exploration that assist the model of Problem Based Learning state that students' critical thinking skills are still low, this hints that so far students are not friendly with critical thinking questions, so that teachers requires learning models and teaching details that can enhance critical thinking skills (Umriani & Suparman, 2019).Abi

E-LKPD that has been developed can be said as a productive media learning and utilized the procedures of teaching and learning. The trial result conducted on 10 students from class IV SDN Wotodadi has Jedong the results showed that the HOTS-based E-LKPD that had been developed was very practical and effective for use, especially in elementary schools.

CONCLUSION

Following are the results of research and conclusion are based on several conclusions:

1. This research produces a product in the form of teaching materials in the form of HOTS-based E-LKPD for grade 4 theme 8 sub-theme 3 learning 3. Before being tested this E-LKPD has gone through a validation stage by experts, namely media experts, linguists, and experts material.
2. This development research has several stages including, curriculum analysis with Basic Competencies (KD) and Core Competencies (KI), analyzing teacher and student character, analyzing material, developing learning strategies, developing learning tools, linking learning with HOTS principles, and conducting evaluation and revision to improve the studied E-LKPD.
3. The results of the percentage of the three other experts. Material experts get an average score of 93.0 while media experts get an average score of 81.7 and linguists get an average score of 85.6. Therefore the conclusion comes as the research on developing E-LKPD based on Higher Order Thinking Skill (HOTS) thematic learning for grade 4 theme 8 Sub-theme 3 Learning 3 is declared "very valid" and deserves to be tested in the field".
4. The varied display of E-LKPD accompanied by the use of attractive and striking images, videos and colors will make students more motivated and enthusiastic during the learning process so as to make the student learning process more meaningful. In addition, this E-LKPD product also makes it easier for students to understand the material being studied.

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