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# E-Book Learning Media Development Based on Kvisoft Flipbook Maker

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#### Abstract

The main purpose of this research is to produce a kvisoft flipbook maker-based ebook learning media product on root material, rank, and logarithms. The research carried out is development research (Development Research) with the ADDIE model. The sample in this study was a student of class X SMK Avicena Rajeg Tangerang Regency in 2021. The data in the study was collected using questionnaires, which consist of expert validation questionnaires, and student response questionnaires. Based on the results of the analysis of research data conducted obtained a value of 76% for media experts and 75.75% for material experts with good categories. The next stage is a practicality test and questionnaire on a small scale and obtained a score of 75.25% with good and practical categories. So it was concluded that the kvisoft flipbook maker-based ebook learning medium is feasible and practically used in math learning

#### Abstrak

Tujuan utama penelitian ini adalah untuk menghasilkan produk media pembelajaran ebook berbasis kvisoft flipbook maker pada materi akar, pangkat, dan logaritma. Penelitian yang dilaksanakan adalah penelitian pengembangan (Development Research) dengan model AD-DIE. Sampel pada penelitian ini adalah siswa kelas X SMK Avicena Rajeg Kabupaten Tangerang tahun 2021. Data dalam penelitian ini dikumpulkan dengan menggunakan angket, yang terdiri dari angket validasi ahli, dan angket respon siswa. Berdasarkan hasil analisis data penelitian yang dilakukan diperoleh nilai 76% untuk ahli media dan 75,75% untuk ahli materi dengan kategori yang baik. Tahap berikutnya adalah tes kepraktisan dan kuesioner dengan skala kecil dan memperoleh nilai 75,25% dengan kategori baik dan praktis. Jadi disimpulkan bahwa media pembelajaran ebook berbasis kvisoft flipbook maker layak dan praktis digunakan dalam pembelajaran matematika

Keywords: E-book, kvisoft flipbook maker, learning media

# INTRODUCTION

Basilaia & Kvavadze (Fadillah et al., 2021) said that the online education tsunami occurred almost worldwide during the Covid-19 epidemic. As an important part of education, teachers and educators are required to conduct unprecedented mass migrations of classroom training online or remotely. Luthra & Sandy (Bilda & Fadillah, 2020) mentions there were four the COVID-19 pandemic is changing the way we educate future generations. First, the process of education around the world is increasingly interconnected with each other. Second, redefine the role and function of educators. Third, provide understanding and teach the importance of future life skills. And, fourth, open up the role and function of wider technology in supporting education to be more maximal. Goldschmidt (2020) state that the health crisis caused by the Covid-19 outbreak has pioneered online learning simultaneously. Creativity and innovation of teachers or lecturers in the Covid-19 area determines the continuity of the process of quality learning activities. Quality education can be achieved by a meaningful learning process created by teachers or lecturers. Waldopo, (2011) Some subjects that need to be supported by interactive multimedia programs are one of maths lesson. Boangmanalu et al., (2018) the development of science and technology and the demands of improving the quality of learning further encourage efforts to update technological outcomes in the learning process. The development of science and technology also encourages the creation of creative learning media. To meet these requirements, the teacher's job is to create innovative and creative means that support the teaching and learning process to achieve learning goals.

Media described as "all way of communication, something its format." In this sense, media encompass image systemsas numerous as print, graphics, animation, audio, and movement pictures. Technology is described as "any item or procedure of human beginning that may be used to carry media." In this sense, generation consists of phenomena as numerous as books, films, television, and the Internet (Omodara and Adu, 2014). Media is a communication intermediary that comes in many forms. Learning media is intended to enrich the learning experience using a variety of objects to facilitate learning purposes. Learning media can be

referred to as a tool to expand the ability of teachers and expand the abilities of students. Learning media also serves as a tool to strengthen important points in the subject matter so that the acquisition of learning outcomes increases. Strengthening lesson information with different media offers opportunities to strengthen learning without being seen over and over again for learners (Ghavifekr & Rosdy, 2015). Setiyo et al., (2018) Learning media are a tool in the teaching process and learning activities to increase students' spirit and enthusiasm in following the learning process. Based on some previous expert opinions, it was concluded that learning media is a tool used by educators so that the concept or material to be provided is specific and meaningful to students.

The learning media in the classroom does not have to be a textbook only but wider than that. Therefore, a learning the media to support the learning process are needed. One of these can be achieved with educational technology. Hidayatullah & Rakhmawati (2016) the media can show what teachers cannot express with certain words or phrases. Samura (2015) the use of learning media can demonstrate the transmission of messages and information to facilitate and improve learning processes and learning outcomes. Use of learning media by utilizing technology can improve mathematical learning outcomes. This is in line with Hamalik's opinion which states that the use and use of learning media can generate new desires and desires and interests, generate positive motivation and stimulation in learning activities, and bring significant psychological influence and impact on students (Hastuti et al., 2017). Learn more about media performance for learners is to: 1) Increasing the educational motivation of the learners, 2) creating and increasing the diversity of the learners, 3) creating a thematic structure and facilitating the learning of the learners, 4) providing basic information, methodological points that make learning easier for the learners, 5) motivating the learners to Concentration and analysis, 6) creating stress-free learning conditions, and 7) allowing learners to understand the topic systematically presented by teachers through learning media.

Abidin (2016) to ensure that math learning is well taught and accepted by students, the latest innovations in math learning are required, that is, through the use of learning media to increase the desire to learn. Tafonao (2018) Learning media is a tool that works and is used to convey the message of learning. Adam (2015) Learning media are anything physical or technical in the learning process that can help teachers to ease the problem for students in order to facilitate the achievement of the formulated learning goals. Saprizal (2019) Learning media are part of the learning process that is used as a learning tool. Arsyad (Pangestu et al., 2019) interactive media is a delivery media system that delivers computer controlled video recording materials to an audience (student) who not only hears and sees video and audio, but also provides an active response. Determines the speed and order of the presentation. Based on the advice of the above experts, they concluded that learning media tools or media used in teaching and learning process activities ranging from conventional to digital-based electronic devices. One of the learning media that is in accordance with the current conditions of the Covid-19 pandemic is an ebook.

Eskawati & Sanjaya (2012) e-book is a book in electronic form containing information that can be in the form of text and images. Lestari et al. (2018) said that an electronic book is a book in electronic form containing information that can be in the form of text and images. Andina (2011) E-books are in the form of files in various formats, e.g., B. in Portable Document Format (pdf), which can be opened with Acrobat Reader or similar. There are also forms of Hypertext Markup (htm) format that you can access by browsing the Internet or browsing the Internet without an Internet connection. There is also an application form. E-books are designed to be read on devices called e-readers or ebook devices such as computers, mobile phones, iPods and iPads. Lawson-Body et al., (2020) Electronic book technology (ebook) has been shown to improve student learning. Smith & Kukulska-Hulme (2012) and (Wu & Hsieh, 2016) interactive ebooks can be developed through online forum posts, blog posts and wikis on the iPad to aid students in distance learning. Kumbhar (2018) It is suggested that ebooks remain an important communication tool in support of interdisciplinary content. Based on the opinion of the above expert, they concluded that the ebook is a book in language electronic form containing text and images that are accompanied by various animations that can be accessed anytime and anywhere by students.

Many programs and software can be used to teach math e-books, one of which is the maker of flifbooks. Kvisoft Flip Book Maker is a program for creating e-books. Students can read by opening a physical book as there is an animation effect where they appear to open the physical book by sliding the pages. (Hidayatullah & Rakhmawati, 2016). Flipbook is reliable software designed to convert PDF files into the backs of digital publications. This program can change the appearance of PDF files and make them more interesting. In addition, kvisoft Flipsbook Maker can also open PDF files as magazines, digital magazines, digital catalogs, corporate catalogs, digital catalogs and more. (Hidayatullah & Rakhmawati, 2016). The advantage of kvisoft flip book maker is that it can load files in the form of videos, moving images, and sound animations. Kvisoft Flipbook Maker application can also be accessed offline and because it is in the form of soft files. Gorghiu et al., (2011) This latest technology provides a great opportunity for the utilization of digital books in science and distance teaching.

The results of previous research conducted by Saraswati et al., (2019) demonstrate that the e-module of Kvisoft Flipbook Maker-based interactive chemistry magazine based on teacher and student responses is on excellent criteria with their respective scores 92.61% and 86.80%; Linda et al., (2018) Interactive electronic module via the chemistry journal at kvisoft flipsbook maker the valid category with the percentage legality score of the validator media is 91.70%; Wibowo & Pratiwi (2018) demonstrate that emodul by using kvisoft flipbook maker applications generated is feasible for use in mathematical learning of set materials; Oktaviara & Pahlevi (2019) e-module assisted kvisoft flipbook maker based scientific approach on materials applying the operation of word processing applications is very good for student teaching materials.

Based on the above assumptions, the design of interactive educational media is essential to support educational and learning activities. The formulation of the problem proposed in this study is how the validity and practicality of the medium learns interactive flifbook maker on root material, rank, and logarithms. The aim of this research is to develop interactive learning medium flifbook maker on root material, rank, and logarithms that are feasible and practical to use.

### METHOD

The research methodology used in this research is research and development (R&D) which refers to the development model ADDIE (*Analyze, Design, Developement, Evaluation*). Fadillah & Bilda (2019) Addie's model focuses on developing learning goals, one of which is media. The advantage of this model is that the work step refers to the previous work steps that have been improved, so it is expected to get an effective product. The products produced in this study are e-book-based flipbook makers on root material, rank, and logarithms.

The data collection technique used A questionnaire was used in this study. A questionnaire is a way of collecting data by presenting or writing a series of questions statements to respondents for answering (Sugiyono, 2016). Data collection techniques through questionnaires are carried out when testing aspects of materials, media, and users. Quality of products produced dinalysis with measures adopted from opinion Widoyoko (2012). The box used for validity relaying using the likert scale is with the highest score of 5 and the lowest score of 1. As for measuring the practicality of the product analyzed with the measures adopted from those adopted from Pradipta (2017). The data sources in this study are students of class X SMK Avicena who numbered 20 respondents for user testing, 1 media expert for media testing, 1 material expert for testing material aspects.

# **RESULT AND DICUSSION**

#### Result

The purpose of this research is to produce a flipbook maker-based e-book product on root material, rank, and logarithms as one of the alternatives and solutions of online mathematics learning in the covid19 pandemic, this is because among others: 1) Teachers need a learning medium that can support the implementation and achievement of curriculum implementation that has been established in school, 2) helps and facilitates the learning process at the time of educators. n distance as at this time, and 3) Likewise with learners, they need an interesting medium so that they can increase learning motivation, make it easier to understand the material, reduce saturation while learning and facilitate the learning process online.

This stage of research uses the AD-DIE method (Analyze, Design, Developement, Evaluation). Analysis stage, at this stage researchers conduct assessment needs to produce learning media that suit their needs, identify and analyze the learning process plan, adjust the material in accordance with the applicable curriculum, analyze what is needed in the face of obstacles to the learning process carried out online. Design stage, the results of the analysis stage are compiled and processed into a design-to-design products in the form of flipbook maker-based ebook learning media, determining aspects, details, and in the form of materials and animations. Development stage, products that have been created, validated, and given input by experts. Once the media is completed the next step is to validate the feasibility of the learning media that has been created by experts or experts. Product validation includes: the technical quality of the developed media, the material's specificity, the interactive and interesting aspects of the developed product. Validation results are used as references and revisions to the products developed. Implementation stage, at this stage the learning media product that has been revised and declared valid by the hali, then implemented to the user to find out the level of practicality or ease in using the product that has been developed. Evaluation

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stage, this stage is to see the extent to which the product is developed and whether it is feasible to be used as an alternative solution to the medium of learning mathematics in online learning.

Assessment of the resulting product through the assessment of media experts and material experts. Here are the results of assessment and validation by experts:

Table 1. Media Expert Validation Results		
Aspects	Percentage	Criteria
Technical Quality	74%	Good
Media	78%	Good
Average	76%	Good

Table 2. Mat	erial Expert Validation	Results
Aspects	Persentage	Criteria

I	5	
Media	76,5%	Good
Material Conformity	75.0%	Good
Average	75.75%	Good

Based on the table above obtained results of 75% and 75.75% respectively for media experts and experts of good and usable category materials. Products that have been declared valid by validators are tested to students to find out the response and level of keptaktisan to the product. Here are the results of assessments from students of the products produced.

Table 3. Practicality Test		
Assessment As-	Persentage	Criteria
pects		
Efcektive	74.25%	Practical
Interactive	75.00%	Practical
Pull	78.50%	Practical
Efficient	75,50%	Practical
Creative	73,00%	Practical
Average	75,25%	Practical

Based on the results of the assessment of the response in students to flipbook maker-based e-books obtained results from each aspect of assessment including on practical criteria (easy to use), so that the average practicality test is 75.25% with practical criteria, which means that the medium of learning ebook-based flipbook maker is worth using. This is in accordance with previous research that states bring the learning media learning media ebook kvisoft flipbook maker worth using in math learning (Wibowo & Pratiwi, 2018).

### Discussion

Development of flipbook maker-based ebook learning media refers to using methods research & development (R & D) Which refers to the ADDIE development model consisting of five stages, namely: Analysis stage: At this stage researchers will only do needs assessment (needs analysis) to produce learning media that suit their needs. pEneliti identifies and analyzes RPP and materials in accordance with the applicable curriculum in SMK Avicena, then the materials selected in this study are Root, rank, and logarithm. At this stage, researchers analyze what is needed in the face of obstacles in the mathematical learning process during the covid-19 pandemic found in SMK Avicena, especially for class X. It is known that in general in math learning, students use learning resources such as package books, the internet, LKS, and other learning resources. The selection of learning media materials and applications that will be used in this research through observation and coordination with mathematics teachers at SMK Avicena Rajeg tangerang regency.

Design Stage, at this stage the results of the analysis stage are compiled and processed into a plan that will be used as a reference for the manufacture of initial products. At this stage researchers choose and determine the application to be developed is an ebook based flipbook maker. This stage begins by determining the components needed in the manufacture of media such as image effects, sound effects, and text to be used. Furthermore, researchers designed the flow of root material, rank, and logarithm in the form of pdf files and then imported into the kvisoft flipbook maker application. Then next is to create a media framework on the flowchart and create a media design storyboard to be interesting and cause enthusiastic learning students. Waryanto, (2014) Storyboards can allow users to experience changes in the storyline to trigger deeper reactions or interests. Flowchart is a chart of a process. Flashbacks, quickly become the result of setting up storyboard chronologically to build curiosity and interest. Here is a storyboard from the flipbook maker-based ebook media.

Demo	Create New	Online Service
Hiji Open	Create Ne	Klik 'Create
ecent Projects	Eng Import Office	
	Demo	Support Contact us FAQ
	🛄 30 Demo	

Figure 1. Early view of Flipbook Maker's Storyboard



Figure 2. Storyboard Flip book maker view

Development stage: Products that have been created, validated, and given input by experts. The results of the evaluation can be used as a reference for improvement so that the product is in accordance with the initial objectives at this stage, the manufacture of products that have been arranged at the design stage. After the learning media ebook kvisoft flipbook maker is completed, the next step is to know the feasibility of the media learning through validation results carried out by validators. The results of the validator questionnaire will show whether the media is learning to be used. The development stages of this research are as follows: 1) Installing 3D Pageflip Professional programs on laptops, 2) Selection of curriculum-adapted materials used in SMK Avicena, especially root materials, rank, and logarithms and material support components, 3) Designing e-Book sheets through pageflip professional 3D programs that have been installed on laptops, 4) include root material, rank, and logarithms and images, animations and evaluation questions in e-Book sheets that have been designed, 5) Publish an e-Book that has contained complete and appropriate content, and 6) Validate e-Book products that have been developed by media experts and material experts. This validation is done to find out the extent of the level of feasibility of the product that has been made through assessments and advice from a team of experts. Then revisions are made to the product developed until the product is declared good and worthy of trial.

Expert assessments of media include technical quality (color size and typeface, integration of colors used, suitability of images /animations used, and suitability of sound and music) and media aspects (visible, interesting, simple, usefull). Expert assessment of the material includes aspects of media (accurate, legitimate, stucture) and conformity of the material (suitability of the language used, conformity of the material to the curriculum). Practicality tests include affective aspects (subject matter in media is outlined in detail, subject matter in media is described from easy to difficult, subject matter in media in accordance with learning objectives, learning media is able to

present all components clearly, learning media is equipped with examples, material in learning media related to previous material that has been studied, learning media associates material with technological development yes ng is happening, Learning media can provide feedback on the response given, in the learning media there are tasks or evaluations that students can do as an exercise, in the learning media there are learning objectives, about evaluation presented in the learning media in accordance with the material taught, about evaluation in accordance with learning objectives, all components of this learning media in accordance with your characteristics, all components of this learning medium are in accordance with the characteristics of the subject.

Interactive aspects: the main menu display on the media makes it easy for you to use the media, the number of main menu options in the media is in accordance with the needs, the main menu display on this media is complete, the layout of the menu options on the media is well organized, the contents of the display on the media are in accordance with the menu of the choice, the main menu display is interesting, the image displayed on the media makes it easier for you to understand the material, The use of fonts in media is easy to read, the motivation of the media can increase your learning motivation, the media used involves interaction between you and the media, the information contained in the media has been fully explained, the language used in the media has described the density of ideas, the writing of mathematical terms in the media is easy to understand, events associated with mathematical concepts have been well illustrated.

Interesting aspect: (learning media fosters your curiosity, learning media can help you associate concepts with the realities of everyday life). Efficient aspects (learning media can improve the quality of your learning, your learning media can master learning materials quickly, and learning media can improve your achievements). Creative aspects (learning media can solve problems from all directions, The exercises in the learning media attract interest to be able to solve it correctly, the evaluation in the learning media attracts interest to be able to solve it correctly, the problems in the learning media use various sources to overcome it, learning media inspires you in problem solving, learning media helps you in the learning process, and this learning media already exists).

Average Score	Criteria
> 4,2 - 5,0	Very Worthy
> 3,4 - 4,2	Worthy
> 2,6 - 3,4	Decent Enough
> 1,8-2,6	Not worth it
> 1,0-1,8	Very Unworthy

Table 5. Product Practicality Assessment Criteria

Average Score	Criteria
> 3,25 - 4,00	Very Practical
> 2,50 - 3,25	Practical
<b>&gt;</b> 1,75 – 2,50	Less practical
> 1,00 - 1,75	Very Impractical

Based on the table above obtained results of 75% and 75.75% respectively for media experts and experts of good and usable category materials. But there is a minor revision from media experts, namely: 1) color gradations that are too striking (less attractive and too sharp coloring) this is in accordance with the opinion (Warni & Damajanti, 2020) choose the dominant main color and compare with the relevant harmonious colors. Keep an eye on how each color affects human psychology. For example, if the main color is red, don't use too much. Red is a strong color and should be balanced by a softer color. 2) The use of letters that are less varied (monotonous) in the media used

and have been improved according to the advice. Products that have been declared valid by validators can be tested to students to find out the response to the product.

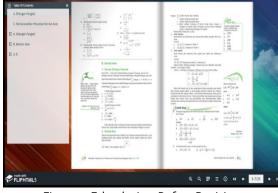


Figure 3. E-book view Before Revision

$ \begin{array}{l} & \left\  \sum_{i=1}^{N-1} \left( \sum_{j=1}^{N-1} \right) \right\  \\ & \left\  \sum_{i=1}^{N-1} \left( \sum_{i=1}^{N-1} \right) \right\  \\ & \left\  \sum_{i=1}^{$	$\begin{array}{l} k_{1} = 4 2 (1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 $
$ \begin{array}{l} \mbox{Const.} & \mathcal{S}, \mathcal{S}, \mathcal{S}, \mathcal{S} \\ \mbox{Const.} & \mathcal{S}, \mathcal{S}, \mathcal{S} \\ \mbox{Const.} & \mathcal{S} \\ \$	тарата 1. анализата 2. анализата 3. али 4. али 4

Figure 4. E book view After Revision

Implementation stage: This stage is at the stage of applying product results that have been made and validated by experts. Learning media products are said to be feasible by experts, then the product is then tested to assess the practicality of the product. The trial of the use of the product was conducted to students of class X SMK Avicena Rajeg Tangerang Regency. This stage is done to find out the effectiveness of the product developed. At this stage, researchers distributed questionnaires to 20 students. The questionnaire assessment scale in this study using 5 indicators is very good (score 5), good (score 4), enough (score 3), less (score 2), and very less (score 1). Indicators of practicality in this study according to (Akdon & Riduwan, 2013) to determine the percentage rate of the respondent group for each statement in the questionnaire used the criteria for interpretation of the score as seen in the Table 6.

Table 6. Score Criteria		
S	core	Criteria
81%	) - 100%	Very Practical
619	6 - 80%	Practical
419	6 - 60%	Less practical
219	6 - 40%	Very Impractical

Based on the results of the assessment of the response in students to the learning media ebook kvisoft flipbook maker obtained results from each aspect of assessment including on practical criteria (easy to use), so that the average practicality test is 75.25% with practical criteria, which means that the learning media ebook kvisoft flipbook maker on root material, rank, and logarithms worth using.



Figure 5. Small-scale trials

Evaluation stage: This stage is to see how far the product was developed and whether it is worth using. And based on the results of expert validation and assessment of student response through questionnaires to the learning media ebook kvisoft flipbook maker obtained the results that the learning media learning media ebook kvisoft flipbook maker feasible and practically used.

#### CONCLUSSION

Based on the results of data analysis and discussion on this study it was concluded that the kvisoft flipbook maker-based e book media developed feasible and practical for use in mathematical learning on root material, rank, and logarithms. Based on validation results by experts obtained results by 75% for media experts and 75.75% for materials with good and decent categories. Based on the results of small-scale tests by students of SMK Avicena as users obtained a result of 75.25% with good and practical categories. kvisoft flipbook maker-based e book media is expected to be one of the solutions and alternatives to mathematical learning during the covid-19 pandemic

Suggestions that can be submitted based on the results of research on the development of mathematical learning media on root materials, ranks, and logarithms using Kvisoft Flipbook Maker media are as follows: (1) Learning media needs to be improved and developed using other software such as scholoogybased e learing, android, sparkoll videoscrab, and others; (2) Materials that can be used are not limited to roots, rank, and logarithms only, but can be used in other materials adapted to the applicable curriculum; (3) It is necessary to test on a larger scale to get more optimal results.

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