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Development of Digital Arts and Culture Books in Improving Learning Outcomes of Class VII Students of MTs Baytul Mukarromah Bone

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Abstract: *Educators are expected to be able to provide teaching materials according to students' characteristics and needs. This research aims to identify needs, design, measure the level of validity, practicality and effectiveness of digital Arts and Culture books in improving student learning outcomes. This type of research is research and development with reference to the ADDIE model implemented at MTs Baytul Mukarromah Bone. The research subjects were 26 students, 1 Arts and Culture teacher, and 2 validators, namely media experts and material experts. Data collection used a needs questionnaire, validation questionnaire for material experts and media experts, student and teacher response questionnaires, as well as pretest and posttest questionnaires. The data analysis technique is descriptive qualitative, the validator's suggestion is that the media for placing the home be separated and descriptive quantitative. The results of this research indicate that identification of student needs is in the required qualifications. The digital book development design is designed in accordance with ATP which is designed using Canva, Heyzine, and also Plif PDF Professional. The level of validity of digital books from the assessment of material expert validators and media experts is at a valid qualification of 80% and very valid 88.23%. The level of practicality of the analysis of student and teacher response questionnaires of 95% is in very practical criteria. Furthermore, the level of effectiveness of digital Arts and Culture books was measured by a pretest of 60% and a posttest of 90%, indicating an increase in student learning outcomes, so that it was declared very effective. Based on the results of the analysis, it was concluded that the development of digital arts and culture books could be used in the learning process in class VII MTs Baytul Mukarromah Bone.*

Keywords: *Arts and Culture; Development; Digital Books*

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1. INTRODUCTION

Education is a forum for improving quality, professional, independent and creative human resources. Education is a place where the process of humanizing humans occurs, meaning that through education everyone has the same rights, namely being given the freedom and opportunity to gain knowledge in every educational unit, both formal, informal and non-formal. Currently, the global world is entering the 22nd century where technology has become important in fulfilling human needs, both in the economic, health and education sectors. In the field of education, technology is used to assist and facilitate learning activities, thereby enabling effective learning for students. An independent curriculum gives teachers the freedom to innovate and choose teaching materials that suit the needs of students in their environment by integrating technology into it. However, what needs to be paid attention to is that when compiling and developing teaching materials they must be in accordance with ensuring three points,

namely student needs, the curriculum being applied, and relevance to the demands of the times. Teaching materials can be defined as anything that is used to facilitate learning, whether in the form of textbooks, presentation materials, learning videos, modules, or other learning resources, which can facilitate students' understanding of a concept or topic being taught.

MTs Baytul Mukarromah Bone is one of the many SMP/MTs in Bone Regency and has implemented the independent curriculum as the curriculum used in preparing learning plans. The main learning resource used in learning activities still requires the use of printed books. Printed books are learning references that are used by both teachers and students in learning activities. Based on the data that has been collected, it is known that the printed books available in the school library have limitations. In this case the number of printed books available is not proportional to the number of students in each class. Some of the printed books available are old books that still use the K13 curriculum. Meanwhile, at MTs Baytul Mukarromah Bone, since the 2021/2022 academic year, they have started implementing the independent curriculum as the curriculum used in preparing learning process plans. Apart from that, the latest printed books in accordance with the independent curriculum in school libraries are only available for a few subjects. One of the subjects for which there are no or not yet available printed books is the subject of arts and culture. Thus, students do not have free access to learning resources or learning references.

The interview was conducted with one of the class VII arts and culture subject teachers at MTs Baytul Mukarromah Bone, namely Mrs. Andi Azri Nining Rukmana S.Pd., M.Pd. stated that so far the learning resources used were only teaching modules as a guide for teachers. It was further explained that the available teaching modules still had limited references in terms of arts and culture material. Apart from that, the teaching modules available are only for teachers to use, so students do not have their own learning resources or guidance. So far, the process of teaching and learning activities in arts and culture subjects in schools is still limited to providing material from the teacher by noting important points on the blackboard and requiring students to note them down. So learning is still one-way, where the teacher is the main source of learning, as a result students do not have an active role in the class. For this reason, the arts and culture subject teacher stated that there was a need for a source of guidance for students, so as to enable students to have access to arts and culture subject matter.

Arts and Culture education is provided in schools because of its uniqueness, meaningfulness and usefulness for students' developmental needs, which lies in providing aesthetic experiences in the form of creative and appreciative activities through the approaches: "learning with art," "learning through art" and learning about art." where this role cannot be provided by other subjects (Awaluddin, 2019) . Arts and culture is a subject that aims to provide understanding, knowledge, experience, as well as the ability to create art so that students can appreciate their own culture and can respect other people so that ultimately they can play an active role in the life of society, nation and state (Aryani, 2019) . Art has unique properties and has certain characteristics that other subjects do not have, so the art learning process ideally uses several teaching methods or strategies because arts and culture are often carried out using theoretical and practical approaches so that they require teaching materials that suit students' needs. The ability to develop critical thinking skills, harmonious personal formation of students, and self-expression in individual growth are important in studying arts and culture.

Digital books are teaching materials in the form of electronic books that contain learning material, so that in the learning process it is possible for students to use electronic devices to operate digital books. According to Citra Rosalyn & Saputra (2019) , Digital books are a combination of the use of electronic technology (*smartphones, laptops, notebooks*) with textbooks, so that someone can read books in the form of *soft files* equipped with images that can be enlarged, and are easy to carry . This was further stated by Arnidah *et al* . (2020) , argue that electronic books can only be used via supporting devices such as computers, *tablets* and *smartphones* . In line with this, Amalia *et al.* (2022) , states that a digital book is a publication consisting of text, images and sound and published in digital form that can be read on a computer or other electronic device. Digital books are electronic versions of conventional books that can be accessed and read using certain electronic devices. Digital books have two

features, namely first; digital book text is *a hyperlink* that is included so you can jump to related topics, and the text can contain audio and video graphic elements, and secondly; The content of digital books can be changed easily to suit readers' needs, such as uploading new books and deleting unwanted text (Smaldino et al., 2019) . Digital books are an integration of digital content that can be easily accessed by students on any device.

Arts and culture education plays an important role in the digital era because it provides students with the opportunity to maintain and develop cultural heritage through digital media. This cultural arts also enables new creativity and innovation for students in facing new challenges and opportunities posed by technology. With arts and culture education, students can increase their understanding of the role of art which continues to develop. Alamsyah (2019) stated that digital arts and culture books are suitable for use and can improve student learning outcomes. Based on this, digital books are a good alternative and solution at MTs Baytul Mukarromah Bone in providing learning resources that are close to students because digital books provide interesting pictures and learning videos which can be used as references to stimulate students' creativity in creating a work. MTs Baytul Mukarromah Bone also has adequate facilities in terms of creating learning that is integrated with technology. Facilities available at MTs Baytul Mukarromah Bone include computer lab, school WIFI, LCD, loudspeakers. Apart from that, the use of *smartphones* among students has been permitted provided that the use of *smartphones* in class is carried out only to assist students in looking for learning references and with strict supervision by the subject teacher concerned so as to enable learning to use digital books as teaching materials for both teachers and students in learning activities, and can be used as a guide that can be reached and accessed by teachers and students anytime and anywhere.

The development of this digital book is supported by several previous studies. Research conducted by Handoko & Zaini (2021) , the results of the research stated that digital books developed in arts and culture subjects were said to be effective, and could increase students' attractiveness. Other research was also conducted by Ma'arif & Ira Claudia (2021) , the results of their research showed that the development of digital books in English subjects was suitable for use by students in class IX MTs. Furthermore, research from Puspa Rani *et al.* (2022) , in their findings show that teaching materials in the form of digital books are suitable for use as learning resources in arts and culture subjects based on the results of validation tests by material experts, media experts and learning experts.

2. RESEARCH METHODS

This research uses a type of development research (*Research and Development*). Development research aims to research, design, produce, test the validity of the products produced, and develop existing products . In accordance with the research carried out, namely developing a product in the form of a digital book . This development research uses the ADDIE model.

The development stages are 1) *Analyze* , namely analyzing needs by identifying problems and obstacles that exist at MTs Baytul Mukarromah Bone, which is carried out by interviewing teachers, giving questionnaires to students, analyzing material and analyzing student characteristics. 2) *Design* , namely the product developed is designed using *the Canva* , *Flip PDF Professional* and *Heyzine applications* . 3) *Development,* namely measuring the level of validity of products that have been created using a questionnaire and then validated by media expert validators and material expert validators. 4) *Implementation* , namely applying products that have been developed to the learning process and measuring the level of practicality through teacher and student responses. 5) *Evaluation* , namely measuring the level of effectiveness by conducting large group trials.

Figure 1 shows the ADDIE development model used in this study.

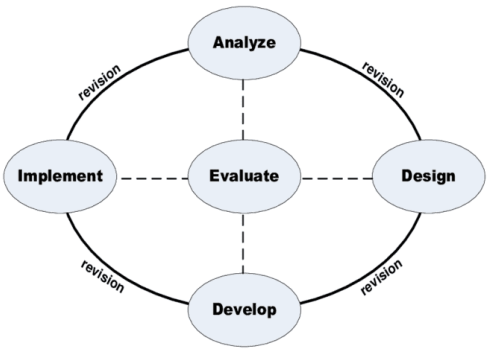
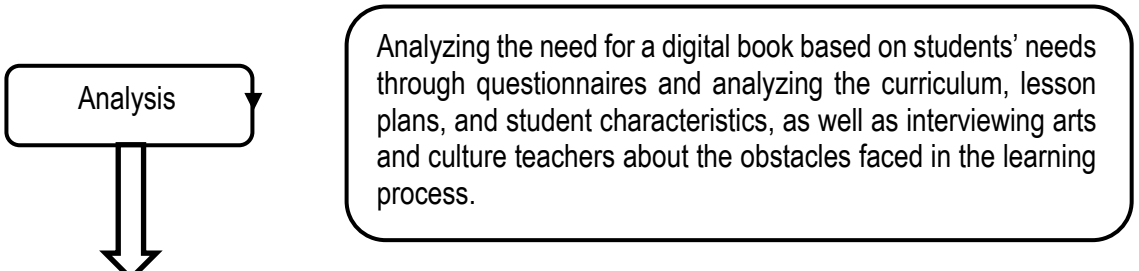


Figure 1. ADDIE Development Model
(Source: Anggraeni, 2019)

The research subjects in this research were class VII students at MTs Baytul Mukarromah Bone for the 2023/2024 academic year, consisting of 26 students, arts and culture subject teachers, and 2 validators, namely a material validator and a media validator. The technique used in this research is *purposive sampling technique* . The data collection techniques used were observation, interviews, questionnaires (needs analysis questionnaire, material validation questionnaire, media validation questionnaire, student and teacher practicality testing questionnaire), learning outcomes tests, and documentation. The instruments used in this research were 1) device and instrument validation sheets. Validation sheets are used to obtain information regarding the validity of the research devices and instruments used, 2) student response questionnaire sheets. Student response questionnaires as one of the data supporting the practicality of use digital book , 3) teacher response questionnaire sheet. The teacher response questionnaire is one of the data supporting the practicality of using it digital books , and 4) learning outcomes tests. Learning outcome test data is used as one of the criteria for the effectiveness of digital books .

The data processing technique in this research uses qualitative and quantitative data. Qualitative data is used to determine the feasibility of digital book products. Qualitative data consists of suggestions, input and comments on assessment sheets or questionnaires by validators, teachers and students. Then the data was analyzed descriptively qualitatively, through the stages of data collection, data reduction and drawing conclusions. The results of data analysis are used to revise digital book products . Meanwhile, quantitative data is carried out using how to analyze quantitative data in the form of numbers from validation results, questionnaires and student learning outcomes. There are four quantitative descriptive analyzes, namely analysis of student needs questionnaires, to determine the level of student needs for digital books. Validity analysis, to determine the level of feasibility and validity of the digital book being developed. Practicality analysis, to determine the level of practicality of digital books through teacher and student response questionnaires. Effectiveness analysis , by giving *pretest questions* before using digital books *and posttest* after using digital books to determine improvements in student learning outcomes.

The research process flow is presented in Figure 2.



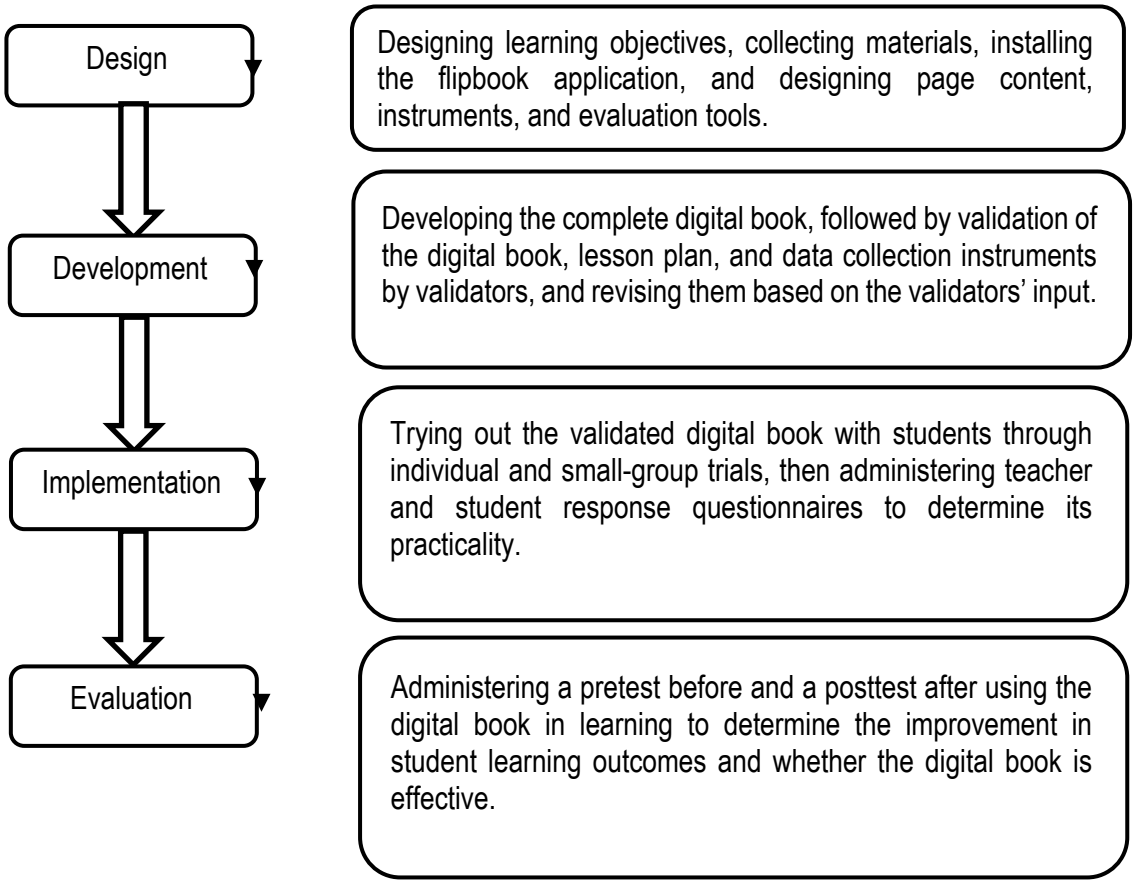


Figure 2. Research Process Flow

3. RESULTS AND DISCUSSION

Results

1. Results of Analysis of the Need for Digital Arts and Culture Books for Class VII MTs Baytul Mukarromah Bone Students.

From the results of the needs analysis that has been carried out, it can be concluded that both teachers and students consider it important to develop digital books that can support the learning process, especially in arts and culture subjects. It is hoped that this effort can increase the effectiveness of arts and culture learning in the classroom, thereby enriching students' learning experiences and supporting the achievement of learning goals.

1. Results of Digital Art and Culture Book Design for Class VII MTs Baytul Mukarromah Bone Students

The first step , determine the right media. Media selection is carried out in order to identify what media suits the characteristics of students in order to help achieve learning goals.

The second step is to prepare arts and culture materials that are in accordance with the learning objectives in class VII, even semester, MTs Baytul Mukarromah Bone and provide pictures/photos and learning videos that can be used as reinforcement in the learning process.

third step is to create *a storyboard/* initial design. The initial design at this stage produces a digital book *storyboard which will be developed at the development stage.*

Step Fourth is designing a digital book using the *Canva application* . The design that will be created is based on *the storyboard* that has been prepared previously. This process involves using the creative

features and design tools available in *Canva* to produce layouts, graphics, and other visual elements that fit the *storyboard concept* .

Figure 3 shows the initial display for creating the digital book.



Figure 3. Initial display for creating a digital book

Fifth step, the design that has been created is then *published* to the next application, namely the *Heyzine Flipbooks application.* In the *Heyzine Flipbooks application* , complementary digital book items will be included, such as learning audio and videos.

Figure 4 shows the publishing process from Canva to Heyzine.

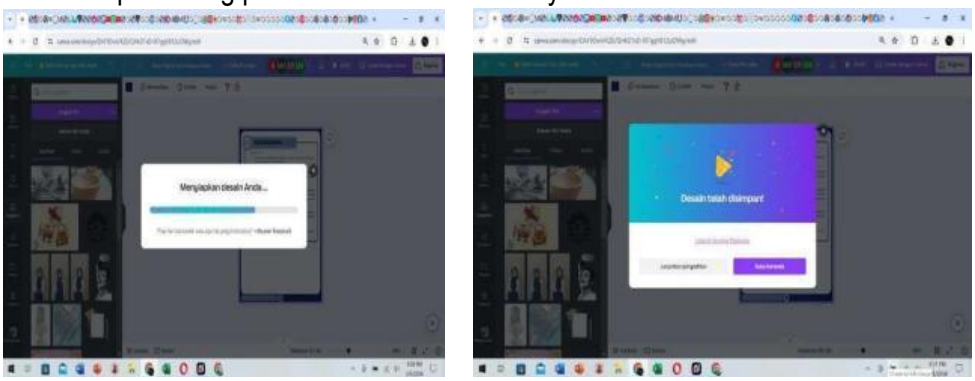


Figure 4. Publish Process from Canva to Heyzine

Figure 5 shows the display of the digital book on Heyzine.

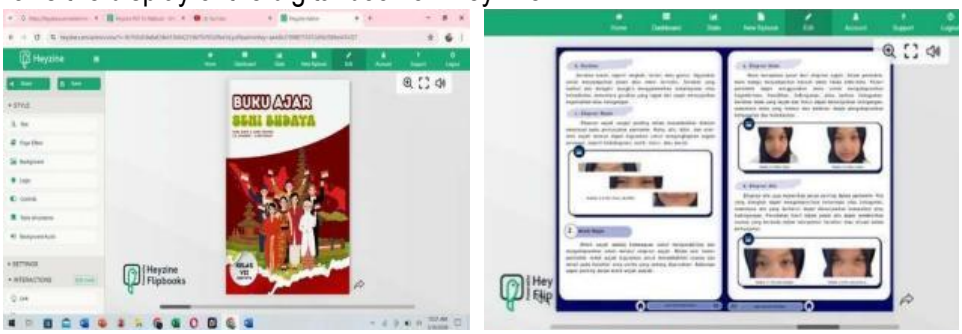


Figure 5. Display of digital books on Heyzine

2. Validity Results of Digital Arts and Culture Books for Class VII MTs Baytul Mukarromah Bone Students.

Media/Design Validation

Table 1 presents the results of the media and design validation.

Table 1. Media and Design Validation Results

No	Assessment Items	Mark
1	Accuracy of color selection and composition	4
2	The layout of the components in the learning media is correct so that it is comfortable to look at	4
3	Attractive screen display design	5
4	The display of menu buttons and text is clear using contrasting colors	4
5	Navigation clarity	4
6	Arrangement of menu buttons well and neatly	4
7	Ease of using learning media	5
8	Compliance with instructions for use	5
9	Learning media is easy to access	5
10	The learning media presented is interactive	5
11	The quality of the images displayed in the learning media is good	4
12	The videos displayed are in good quality	4
13	The language used is easy to understand	5
14	The sentences used in this learning media represent the material to be achieved	5
15	The type and size of letters used in this learning media are legible and clear	4
16	Accurate *font* and *background colors*	4
17	The buttons used in this learning media work well	4
Percentage Mean		88.23%

Data source: Results

Based on the results of the media assessment, the percentage of achievement levels according to Wijaya (2021) can be calculated as follows:

$$validity\ value = \frac{number\ of\ scores\ obtained}{number\ of\ highest\ scores} \times 100\%$$

$validity\ value = \frac{75}{85} \times 100\% = 88,23\%$

Based on the assessment results by the media validator after being converted using the conversion table, the level of media validity criteria for arts and culture subjects is 88.23%, in the interval 81%-100% with very valid qualifications. This shows that the digital book developed by the researcher is worthy of being tested in this research.

Material/Content Validation

Table 2 presents the results of the material validation.

Table 2. Material Validation Results

No	Assessment Items	Mark
1	Conformity of the material presented with the Learning Implementation Plan (RPP)	4
2	Clarity of learning objectives	4
3	Suitability of material to student characteristics	5
4	Conformity of the material presented with the truth of science	3
5	Clarity of general instructions	4
6	Clarity of assignments and exercises	4
7	The sentences used are in accordance with correct Indonesian language rules	4
8	Suitability of language use to students' cognitive level	4
9	The language used in learning media is easy for students to understand	4
10	Encourage students' curiosity	4
11	Encourage students to build their own knowledge	4
12	Encourage students to learn independently	4
Percentage Mean		80%

Based on the results of the material assessment, the percentage of achievement level according to Wijaya (2021) can be calculated as follows:

$$validity\ value = \frac{number\ of\ scores\ obtained}{number\ of\ highest\ scores} \times 100\%$$

$validity\ value = \frac{48}{60} \times 100\% = 80\%$

Based on the results of the assessment by material/content expert validators after being converted using the conversion table, the level of validity criteria for arts and culture subject matter is 80%, in the interval 61%-80% with valid qualifications. This shows that the digital book developed by the researcher is worthy of being tested in this research.

3. Practical Results of Digital Arts and Culture Books for Class VII MTs Baytul Mukarromah Bone.

Practicality Level

Table 3 presents the results of the student and teacher response questionnaires.

Table 3. Results of Student and Teacher Response Questionnaires

Questionnaire	Average Percentage	Criteria
Individual Response Questionnaire	90%	Very Practical
Small Group Response Questionnaire	90%	Very Practical
Teacher Response Questionnaire	95%	Very Practical

Based on the assessment results of the student and teacher response questionnaires listed in table 3, the average percentage of individual response questionnaires reached 90%, the average percentage of small group response questionnaires reached 90%, and the average percentage of teacher response questionnaires reached 95%. Of the three average percentages, the level of practicality is in the very practical category, meaning that the use of digital books can support the learning process.

4. Results of the Effectiveness of Digital Arts and Culture Books in Improving Learning Outcomes for Class VII Students at MTs Baytul Mukarromah Bone.

Effectiveness Level

Table 4 presents the students' pretest and posttest results.

Table 4. Student Pretest and Posttest Results

No	Respondent	*Pretest* Score	*Posttest* Score
1	S1	55	90
2	S2	65	95
3	S3	60	85
4	S4	60	100
5	S5	55	80
6	S6	60	90
7	S7	55	85
8	S8	60	90
9	A9	55	85
10	S10	60	90
11	S11	65	100
12	S12	55	85
13	S13	60	90
14	S14	55	90
15	S15	60	90
16	S16	55	85
17	S17	60	90
18	S18	55	85
19	S19	60	90
20	S20	65	100
21	S21	70	85
22	S22	70	95
23	S23	55	85
24	S24	70	100
25	S25	65	90
26	S26	65	95
Total		**1570**	**2345**
Average		**60**	**90**

Based on table 4, data obtained from student learning outcomes through *pretest* and *posttest activities* , which were then calculated and analyzed, showed that the average score of students' *pretest* or before using digital books was 60% in the **low category** and the average score of *posttest* or after using digital books is 90% in the **High category** . This shows that there is an increase in learning outcomes between *pretest* and *posttest scores* of 30% and with a score of 90% it is at a mastery level of 80%-100% in the high category, so it can be stated that the level of effectiveness is in the very effective category. Thus, it can be concluded that the use of digital books in arts and culture subjects is declared effective for implementation at MTs Baytul Mukarromah Bone.

Discussion

A digital book is a collection of text, images, video and sound packaged in one application format that can be read with certain electronic devices, in the sense that if a book generally consists of a collection of paper which can contain text or images, then a digital book contains information that digital in the form of text, it can even be embedded with multimedia in the form of images, sound, music and video. Digital books or *e-books* are printed books that have been converted into digital format, through digitization stages which make them accessible via electronic devices (Nurhikmah H *et al* ., 2021) . In line with Diarta *et al.,* (2021) stated that this digital book can contain text, images, graphics and other information that can be read on *smartphones* , desktop or laptop screens, and other portable devices. The development of digital books refers to the results of initial observations and needs analysis, where the results of the

needs analysis show that students have a high interest in digital books and emphasize the importance of developing diverse and innovative digital books as an effective and interesting learning tool for students in understanding arts and culture lessons.

The digital book that has been developed is a digital arts and culture book whose presentation is not only in the form of text and images but also includes learning videos. Apart from that, digital books are designed with various interesting elements, the combination of color display, *background* , *hyperlinks* in digital books really attracts students' attention. This is in line with research conducted by Setiawan & Santoso (2019) , which states that, apart from containing text and images in the material, learning materials can also insert multimedia elements such as audio, video, animation and *hyperlinks.* This allows users or students to control both the navigation and the material themselves, so that students can freely move between materials, watch or pause videos, and replay video content contained in the digital arts and culture book.

Research related to the use of digital books can be seen in research conducted by Qouri & Zulherman (2023) who concluded that the digital books developed were effective in improving student learning outcomes and suitable for use in the learning process. This research was taken as relevant research in this research because it has similarities in the process of developing digital books to improve student learning outcomes, and the model used has similarities, namely using the ADDIE model. So researchers designed digital book teaching material products to be able to solve one of the problems in the learning process. The differences between this research and previous research are the research location, learning materials, and different student characteristics, as well as the resulting digital book which is equipped with an interactive quiz. The output of this research is to produce digital books that have been proven to improve the learning outcomes of class VII students at MTs Baytul Mukarromah Bone by going through the development procedure stages used.

The findings in research on the development of digital books on Arts and Culture in improving the learning outcomes of class VII students at MTs Baytul Mukarromah Bone are findings on 1) the language aspect, 2) increasing understanding of concepts where the digital book product is equipped with learning videos that can help students better understand the concepts the abstract. 3) accessibility and involvement, where students are allowed to access digital books anywhere and at any time, 5) improving student learning outcomes. Another finding in this research is that at the preparation stage, teachers should first ensure that the internet connection at school, in this case the school WiFi, is well connected, then prepare the media that will be used, whether laptops or *smartphones,* and inform students about the topics that will be studied. at the next meeting so that students can study first at home. At the implementation stage, teachers should first introduce students to the procedures for using digital books, the function of the tools in digital books because digital books are new media in the school, so students need to study them first before using digital books. in the learning process.

4. CONCLUSIONS AND RECOMMENDATIONS

The results of the needs analysis state that students need digital books in learning. Digital books are designed according to the flow of learning objectives (ATP), the contents of digital books are designed using the *Canva application* and *published* on the *professional flip pdf application* and *the Web* in the form of *heyzine* . Digital books are equipped with material in the form of text, images/photos and learning videos which can be accessed using the internet via *smartphone* , tablet, laptop or computer. Digital book validation level results namely material validation obtained a valid category while media validity obtained a very valid category. The results of the level of practicality of digital books , namely from the student and teacher response questionnaire regarding digital books, obtained the very practical category. The results of the level of effectiveness of digital books obtained from *the pretest* and *posttest* show an increase in

learning outcomes in the very effective category. So it can be concluded that the use of digital books in arts and culture subjects has been proven to be effective at MTs Baytul Mukarromah Bone.

The suggestions that researchers convey regarding the use of digital book products include 1) For students, it is hoped that the digital books that have been developed can be used as a learning resource in the learning process, 2) For teachers, it is best to follow technological developments, especially in creating and developing books. digital books that are interesting for students, 3) For future researchers, the development of digital arts and culture books is still limited to one semester in digital books so development needs to be carried out in the following semester.

The process of developing this digital book still has limitations. These limitations include the following: a. Researchers have not mastered how to combine various forms of practice questions other than multiple choice. b. Researchers are only able to provide material/discussion for one semester. However, despite the limitations faced by researchers, the product can be completed in the form of a digital book that is practical and effective to use.

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