DEVELOPMENT OF INTERACTIVE MEDIA BASED ON ARTICULATE STORYLINE IN FIQH SUBJECTS OF HAJJ AND UMRAH MATERIALS CLASS VIII MTSN 8 AGAM

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Sections Info	ABSTRACT
	This research is motivated by the fact that the use of digital media that is not optimal and less varied such as when explaining lessons is only supported by youtube media without any editing, this is because teachers are often burdened with high administration and workload, so that they find it difficult to spend time learning and integrating digital media into the teaching process This research aims to To produce interactive media based on articulate storylines that are valid, practical and effective in fiqh subjects of Hajj and Umrah material class VIII MTsN Agam. The research uses the Four-D (Define, Design, Develop, Disseminate) model. The test subjects amounted to 23 students with interactive media objects based on articulate storyline. The results of the study show that the media developed is valid, very practical, and effective. Practicality from a student's perspective reached 92.87% (very practical category). Effectiveness was proven through a paired t-test between pretest–posttest with t-count = 9.27 > t-table = 2.074 (df = 22; a = 0.05), so that there is a significant difference in learning outcomes after using media. This finding confirms that the interactive media developed is feasible to support the achievement of fiqh learning goals in Hajj and Umrah materials at the MTsN 8 Agam level.

ABSTRAK

Penelitian ini dilatarbelakangi oleh bahwa penggunaan media digital yang belum maksimal dan kurang divariasikan seperti ketika menjelaskan pelajaran hanya didukung oleh media youtube tanpa ada pengeditan hal ini disebabkan karena guru sering kali dibebankan administrasi dan beban kerja yang tinggi, sehingga mereka kesulitan untuk meluangkan waktu belajar dan mengintegrasikan media digital ke dalam proses mengajar Penelitian ini bertujuan Untuk menghasilkan media interaktif berbasis articulate storyline yang valid, praktis serta efektif pada mata pelajaran fiqih materi haji dan umrah kelas VIII MTsN Agam. Penelitian menggunakan model Four-D (Define, Design, Develop, Disseminate). Subjek uji coba berjumlah 23 siswa dengan objek media interakti berbasis articulate storyline. Hasil kajian menunjukkan media yang dikembangkan valid, sangat praktis, dan efektif. Praktikalitas dari perspektif siswa mencapai 92,87% (kategori sangat praktis). Efektivitas dibuktikan melalui uji-t berpasangan antara pretest–posttest dengan t-hitung = 9,27 > t-tabel = 2,074 (df = 22; a = 0,05), sehingga terdapat perbedaan signifikan hasil belajar setelah menggunakan media. Temuan ini menegaskan bahwa media interaktif yang dikembangkan layak diterapkan untuk mendukung ketercapaian tujuan pembelajaran fikih pada materi haji dan umrah di tingkat MTsN 8 Agam.

Kata kunci: *Interactive Media, Articulate Storyline, Hajj and Umrah*

INTRODUCTION

The rapid development of digital technology every year is a reflection of the high human need for technology that continues to develop. The quality of human resources is the main key in determining technological advancement, where education plays a vital role in shaping individual quality. Therefore, innovation in the field of education is very important to improve the quality of education of a bangs.

The main goal of national education is to improve the quality of human resources. This is in line with Law Number 20 of 2003 concerning the National Education System which emphasizes that education is a conscious and planned effort to shape human beings as students. In the learning process, students are expected to be able to actively develop their potential, acquire spiritual strength, personality, and noble morals that are beneficial to themselves, society, nation, and state (Sumara, 2017).

Education is important, because it can help students grow into good and useful people. Education is not only about learning, but also about shaping the character and personality of students. In today's world, technology is developing rapidly, and education must also change. Therefore, an interesting and effective learning method is needed. The government, schools, companies, and communities must work together to improve the quality of education.

Technology helps learning in a more exciting way. In the past, learning from books and whiteboards can now be learned from videos, games, and applications on *smartphones*. Technology is also changing the way we assess. In the past, grades were written on paper, but now they can be assessed through online quizzes, online discussions, and how to solve problems. It helps teachers see students' abilities and creativity.

In the Qur'an it is explained that Allah will facilitate human affairs related to life as in surah Q.S.al-A'la [87]: 8 which reads

$$وَنُيَسِّرُكَ لِلْيُسْرَىٰ$$

Means:
We will make way for you to ease (in all matters)

From this verse it is explained that Allah will provide space for humans to develop something to facilitate activities. Technology will provide human convenience in the activities that will be carried out, including in the learning process.

The application of technology in the learning process also simplifies the process of evaluating and assessing student performance (Aziz and Ana 2022). With a special application, teachers can conduct assessments quickly and efficiently. An evaluation system integrated with technology allows teachers to track student progress, identify individual learning needs, and provide more accurate and timely feedback. This helps to increase the effectiveness of learning and strengthens the interaction between teachers and students in achieving better educational goals.

Interactive media increases the activities and understanding of fiqh students in grade VIII. Basically, the main discussion of fiqh is zakat, hajj, conditions and pillars of hajj and umrah. Mastery of this material is important to achieve the expected learning goals of fiqh material, especially regarding Hajj and Umrah, requires a deep understanding. Students not only need to understand the concept, but also the procedures for carrying out the worship directly. Challenges arise in learning methods that are still dominated by lectures, with

minimal student involvement. This results in a lack of motivation to learn, low student attention to the teacher's explanations, and reduces the effectiveness of the learning process. Increased student activity in discovering new things and meaningful learning experiences is key to overcoming these challenges. By encouraging active student participation, it is hoped that it can increase the enthusiasm for learning, focus on the material, and ultimately achieve more optimal learning outcomes. To increase the effectiveness of Fiqh learning, it is necessary to make efforts to (Yazid 2021) : 1) Vary learning methods using more interactive learning methods such as discussions, demonstrations, and simulations to increase student engagement. 2) Utilize learning media using interesting and relevant learning media such as videos, pictures, and teaching aids to clarify the material and improve student understanding. 3) Providing opportunities for students to ask questions provides space for students to ask questions and discuss material that is not yet understood. 4) Create a conducive learning atmosphere: create a pleasant learning atmosphere and support an active learning process. By implementing more innovative learning strategies and actively involving students, it is hoped that it can improve students' understanding and learning outcomes in fiqh subjects.

Quantitative data obtained from the pure score results of grade VIII students from 2023-2024 shows that students still have an average score below the KKM. The value of fiqh subjects can be seen in the following table 1.1:

Table 1.1 Pure Score of the Even Semester Final Exam for Fiqh Subject Class VIII 2023/2024

Yes	Year	Number of Students	MOH	Grade Point Average
1.	VIII -1	25	80	83
2.	VIII-2	26	80	81
3.	VIII-3	23	80	72

Source: Fiqh Subject Teacher

From the learning results obtained by grade VIII students from the 2023-2024 school year, they still have an average score that is still below the KKM in one of the classes , namely VIII-3. This is supported by the results of observations through observation of learning in the classroom on May 13, 2024 and interviews with students and subject teachers on May 20, 2024 who teach fiqh at MTsn 8 Agam found that the use of digital media that has not been maximized and is not created such as when explaining lessons is only supported by youtube media without any editing, this is because teachers are often burdened with administration and burdens high work, so that they find it difficult to spend time studying and integrating digital media into the teaching process. Therefore, educators do not practice using interactive media so that learning is less innovative, coupled with the limited time that teachers have in making learning media in the form of interactive media. The learning process becomes less effective in improving students' understanding to achieve maximum learning outcomes, because students need learning media in the form of interactive media that can feel the illusion of movement in the images displayed that are concrete. So an interactive media is needed that can make it easier for students to understand Hajj and Umrah materials.

Based on this exposure, it can be concluded that interactive media has great potential to increase learning effectiveness. The use of interactive media is expected to improve student learning outcomes by (Ramadhani et al. 2023): 1) Increase interest and motivation to

learn: Interactive media with its various interactive features can make the learning process more engaging and motivate students. 2) Makes it easier to understand the material The integration of various media in interactive media helps students understand concepts and subject matter more easily. 3) Increase active student participation Interactive features in interactive media allow students to actively participate in the learning process, such as choosing learning paths, answering questions, and completing assignments. 4) Make the learning process more enjoyable Interactive media with attractive displays and interactive features can make the learning process more fun and less boring. Thus, the use of interactive media in the learning process has great potential to improve the quality of education and achieve more optimal learning outcomes.

One of the interactive media that can be developed to increase learning effectiveness is *articulate storyline*. *Articulate storyline* is an *e-learning authoring software* that allows teachers to create interactive learning media easily, resembling a PowerPoint display but equipped with multimedia features, such as animations, audio, videos, and interactive quizzes. Through this application, teachers can present fiqh materials, especially about Hajj and Umrah in the form of simulations, educational games, and interactive scenarios that visually describe the process of implementing worship. Thus, learning becomes more concrete, interesting, and easy for students to understand. In addition, *Articulate storyline* also supports the principle of *active learning*, where students not only passively receive information, but also interact directly with the material presented. Features such as *drag and drop, multiple choice feedback,* and *branching scenarios* provide space for students to explore concepts independently. This media can be accessed through computers and mobile devices, supporting flexible learning in the classroom and at home. With this ability, the development of *articulate storyline-based* learning media is very relevant to be applied in fiqh subjects, because it can help students understand the practice of worship visually and interactively, as well as increase their learning motivation and learning outcomes. Based on these explanations and explanations, a problem arises that needs to be studied related to the use of learning media for students and is expected to improve student learning outcomes, so the author raises the title "development of interactive media based on *articulate storyline* in fiqh subjects of Hajj and Umrah material class VIII MTsN 8 Agam".

METHOD

This type of research is a development research better known as *Research and Development* (R&D). (Sigh, 2015) Research and development methods can be interpreted as a scientific way to research, design, produce and test the validity of products that have been produced or produced which can be abbreviated into 4Ps, namely research, design, production and testing. (Rusdi 2018) Putting forward research and development is research that overcomes limitations and adjusts to goals, makes decisions, solves problems, reasones with uncertainty, searches, searches and plans. Based on the expert's opinion, it can be concluded that the research and development method is a method that aims to develop and produce a product that is suitable for use. The results of the developed products are easily accepted by users as a means of conveying information.

RESULT AND DISCUSSION
Results
A. Development Results
1. *Define*

The result of this research is in the form of the development of an *articulate storyline-based* interactive media that is declared valid, practical, and effective as a learning medium for Fiqh subjects for grade VIII students at MTsN 8 Agam. This media development process refers to the *Four-D* (4D Model) development model which consists of four main stages, namely: a) Definition Stage, which includes needs analysis, material analysis, and identification of learning objectives; b) Design Stage, which focuses on designing the initial design of media and material structure c) Development Stage, which is product creation, expert validation, and limited user testing; and d) Disseminate Stage, which is the process of distributing learning media that has been revised and ready to be used more widely.

The stages of validity, practicality and effectiveness tests are carried out according to research procedures by asking for the opinions of media and material experts. The detailed and complete discussion is presented as follows:

a) Stages of Definition

This stage was carried out to obtain an overview of the real conditions in the field related to fiqh subjects in grade VIII at MTsN 8 Agam. In addition, this stage also aims to conduct a *need analysis* in the context of developing interactive media that is in accordance with learning needs. The steps taken at this stage include: *first,* Curriculum Analysis: The curriculum analysis process at this stage is focused on identifying fundamental problems that occur in the implementation of Fiqh learning directly in the classroom. This analysis aims to understand how learning takes place and to assess the suitability between learning practices and the applicable curriculum.

Based on the results of observations and interviews conducted in fiqh learning in class VIII MTsN 8 Agam which has implemented an independent curriculum, it was found that the use of learning media is still limited and less varied. The dominant learning methods are still conventional, such as lectures, while teachers tend not to develop interactive learning media. In addition, students have difficulty in understanding certain materials, especially regarding Hajj and Umrah, due to the lack of interesting supporting media that is in accordance with the characteristics of students.

Curriculum analysis is carried out to ensure that the interactive media developed is in accordance with the learning outcomes (CP) and learning objectives (TP) set in the independent curriculum. By analyzing the curriculum, media designers can find out the competencies and indicators that need to be achieved by students, so that the designed media can support the achievement of learning goals optimally. *Second,* Student Characteristics Analysis: At this stage, the researcher conducts observations and interviews to identify student characteristics before developing interactive media products. Analysis of student characteristics is an important reference in designing appropriate learning media, especially in fiqh learning on Hajj and Umrah materials. The information obtained through this analysis is used as a basis for consideration in the development of interactive media to suit the needs and learning styles of students.

Based on the results of observations and interviews in class VIII MTsN 8 Agam, students in the age range of 13–14 years are generally at the stage of formal operational cognitive development according to Piaget's theory. At this stage, students are able to think abstractly, understand *causality*, and be able to solve problems logically and systematically. In addition, they have also been able to consider various points of view and compile information sequentially. Fiqh material on Hajj and Umrah, which includes the procedures for the implementation of the two worships, requires conceptual understanding as well as practical skills. Therefore, learning media that is able to display information visually, *auditory*, and *kinesthetically is needed*, considering that students have diverse learning styles. Visual learning styles (through images and videos), *auditory* (through sound or verbal explanation), and *kinesthetic* (through hands-on practice or simulation) all need to be facilitated in the learning process.

Taking into account the characteristics of students and *the differentiation* approach in the independent curriculum, the use of interactive media is the right solution. This medium allows students to learn flexibly anytime and anywhere according to their respective learning styles. In addition, the attractive and interactive display of this media can also increase students' active involvement and motivate them to understand the learning material in a more fun and in-depth way. *Third,* Task Analysis: Task analysis is carried out to identify the form of activity or task given to students in understanding Hajj and Umrah material in fiqh subjects in grade VIII MTsN 8 Agam. In the context of the independent curriculum, the tasks given to students aim to develop competencies in accordance with learning outcomes (CP), both in terms of knowledge, skills, and attitudes. After studying the Hajj and Umrah materials, students are expected to be able to: mention the pillars and legal requirements of Hajj and Umrah, explain the procedures for carrying out these worship, understand the spiritual values behind Hajj and Umrah, and practice Hajj manasik correctly through simulation activities or hands-on practice. One form of practical task carried out is the hajj manasik activity, which is a simulation of the implementation of the hajj that allows students to understand applicatively the steps and order of the worship.

This activity not only aims to strengthen the cognitive aspect, but also to instill worship values contextually in accordance with the profile of Pancasila students emphasized in the independent curriculum. Thus, the analysis of this assignment is important in ensuring that the development of interactive multimedia can later facilitate holistic learning outcomes and support the implementation of student tasks independently and in groups. *Fourth,* Concept Analysis. The concept analysis is carried out based on the learning outcomes (CP) set out in the independent curriculum so that the learning objectives in Hajj and Umrah materials in grade VIII MTsN 8 Agam can be achieved holistically, including competencies, knowledge, skills, and attitudes.

Table 4.1 Learning Outcomes (CP) Fiqh Class VIII (Independent Curriculum)

Element: Worship
Phase D (Class VIII)
Material: Hajj and Umrah

Element	Learning	Competence	Scope of	Learning

	outcomes		material	objectives
Fiqh ibdah	Students understand the provisions of Hajj and Umrah so that they have an absolute awareness of servitude and obedience to Allah SWT in following the rules of shari'a in daily life in the context of the nation and state to achieve the pleasure of Allah SWT	Understand	Provisions for Hajj and Umrah	Understanding the provisions of Hajj and Umrah so that a religious person is formed and has obedience and equality before Allah SWT

Based on the results of the analysis of learning outcomes, the design of interactive media must support the achievement of learning objectives (TP) that are in accordance with the elements of worship in Phase D of the independent curriculum. Thus, students not only understand the concept in theory, but are also able to internalize the values of worship and practice the hajj manasik correctly and meaningfully.

a. Objective Analysis

At this stage, the results of task analysis and concept analysis are used as a basis for determining learning objectives (TP) and indicators of learning outcome achievement in fiqh subjects. This determination is adjusted to the characteristics of students and the learning context in grade VIII MTsN 8 Agam so that the learning process is in line with the learning outcomes (CP) that have been set in the independent curriculum. This Learning Objective is prepared in the form of a learning objective flow (ATP) and serves as a reference in the preparation of teaching tools, including teaching modules and formative and summative assessments. Thus, the fiqh learning process, especially Hajj and Umrah materials, can take place in a directed, meaningful, and in accordance with the development of students' competencies.

2. *Design*
a. Login Page

Gambar 4.1 Articulate Storyline

The login page is designed as the starting point for user interaction with interactive media. The goal is to collect user identities while providing a friendly welcome

Design Appearance: This page is dominated by dark blue as a background with illustrations of the Kaaba and cheerful Muslim child characters, creating a relevant and interesting atmosphere. The words "welcome" and the media title "interactive media for hajj and umrah class VIII MTsN" are clearly displayed at the top.

Interactive Elements: There are two rectangular text input columns labeled "type your name here" and "type class here". At the bottom of the input field, there is a large, prominent "login" button, serving as the main navigation to the next page after the user enters their personal data.

Function: Allows personalization of the learning experience by noting the student's name and class, which will then be displayed on the main menu page.

b. Main menu page

Gambar 4.2 Articulate Storyline

After logging in, users will be directed to the main menu page which is the navigation center of all interactive media content**.**
Design Appearance: This page maintains a color scheme and illustration style consistent with the login page, with images of mosques and Muslim/Muslim characters. The middle section features the big title "Main Menu" and a personal greeting "Assalamu'alaikum wr. Wb. Welcome [name] from [class]".

Main Navigation Elements: There are four main buttons designed with representative icons:
Hint: Symbolized by an open book icon, for media usage guides.
Element: Symbolized by a paper stack icon, referring to the learning objective.
Material: Symbolized by a computer monitor icon, to access teaching materials.
Evaluation: Denoted by a checklist icon, to measure student understanding.
Control Elements: At the top of the screen, there's a "profile" button to view personal information, a music volume control, and a power button to exit the app.
Functions: Provides quick and intuitive access to a wide range of learning modules, while providing users with basic controls.

c. Instructions Page

Gambar 4.3 Articulate Storyline

The instructions page is designed to provide explicit guidance on the functions of buttons and navigation in interactive media.
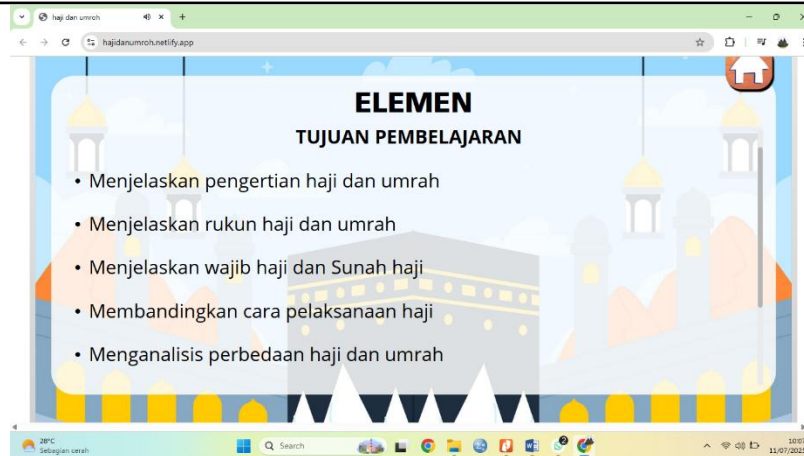Design Appearance: This page has a lighter background with a faint illustration of the mosque, highlighting the content of the hint.
Contents Instructions: describes the function of some important buttons: "next": to proceed to the next page. "previous": To return to the previous page. Home icon: To return to the menu page. Speaker icon: To adjust the volume of the music.
Paper stack icon: To select a material. (It needs to be clarified whether this leads to a specific element or material)
Function: Ensures users can operate the media independently and effectively, reducing potential confusion.

d. Element Page

Gambar 4.4 Articulate Storyline

This page serves to outline the learning objectives that students are expected to achieve after using the media.

Design Look: Similar to a hint page, with a calm background, it highlights the destination list.

Content of Learning Objectives: Presented in the form of clear and measurable points:

- Explain the meaning of Hajj and Umrah.
- Explain the pillars of Hajj and Umrah.
- Explain the obligatory hajj and the sunnah of hajj.
- Compare the way the hajj is carried out.
- Analyzing the difference between Hajj and Umrah.

Function: To provide students with direction and focus on learning, as well as to assist in the assessment of competency achievements.

e. Material Page

Gambar 4.5 Articulate Storyline

The material page is designed as a gateway to choose the main learning topic, which is Hajj, Umrah, or the difference between Hajj & Umrah.

Design Display: features two iconic illustrations of the Kaaba as large buttons for "Hajj" and "Umrah". Below it, there is a button "difference between Hajj & Umrah". The character of a Muslim child with a balloon saying "Please choose the material you want to learn" adds a friendly and motivating touch.

Function: Allows students to choose materials according to interests or needs, supporting independent learning.

f. Hajj Material Page

Gambar 4.6 Articulate Storyline

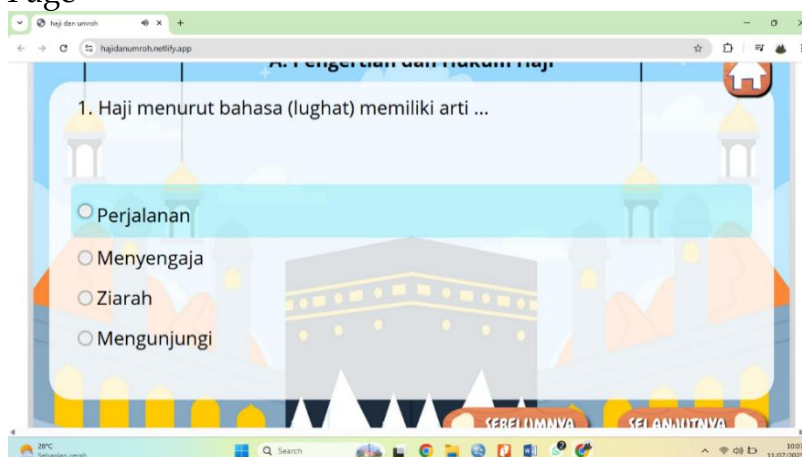These pages present specific sub-material from Hajj and Umrah, each with a structured list of options.

Hajj Material Page: Displays a list of sub-materials in the form of horizontal buttons, including "definition of hajj", "obligation of hajj", "law and evidence of hajj", "sunnah of hajj", "requirements for compulsory hajj", "prohibition of hajj", "pillars of hajj", "dam or fine", and "video".

Umrah Material Page: Displays a list of sub-materials in the form of vertical buttons, including "definition of Umrah", "conditions, harmony, mandatory Umrah", "order of implementation of Umrah", "wisdom of the obligation of Hajj and Umrah", and "video".

Character Guide: A cheerful Muslim child character with a "Please learn the following sub-material" speech balloon present on both pages to motivate students.

Function: Provides detailed access to various aspects of Hajj and Umrah materials, allowing students to explore topics systematically

g. Evaluation Page

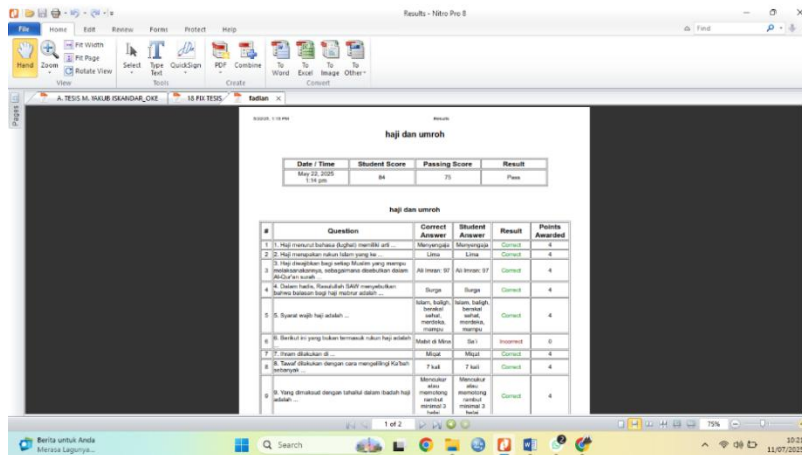***Gambar 4.7 Articulate Storyline***

The evaluation page is designed to measure student understanding through a multiple-choice format.

Design View: The background features an illustration of the Kaaba, while the questions and answer choices are inside a clean white panel.

Question Format: Each question is clearly presented, followed by four answer options in the form of a radio button, allowing students to choose one answer. Question Navigation: The "before" and "next" buttons are available to switch between questions.

Function: Tests students' understanding of the material that has been studied and prepares them to see the final result.

h. Evaluation Results

Gambar 4.8 Articulate Storyline

This page serves to display a summary of student performance after completing the evaluation.

Design Display: Presented in a neat table format, providing structured information. Score Summary: Displays important data such as date/time, student score, passing *score*, and pass status.

Answer Details: The bottom table details each question ("*Question*"), correct answer ("*Correct Answer*"), student answer ("*Student Answer*"), and points awarded ("*Points Awarded*").

Function: Provides comprehensive feedback to students regarding their performance, helping to identify areas for improvement.

i. Profile

Gambar 4.9 Articulate Storyline

The profile page displays the user's personal information that has been entered when logging in.

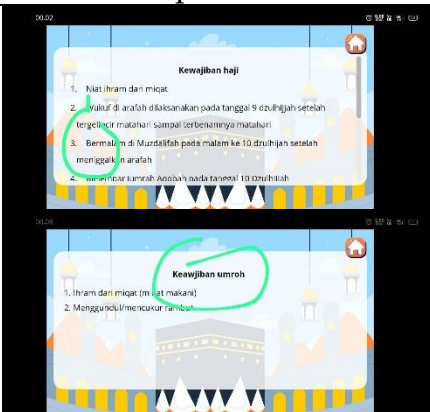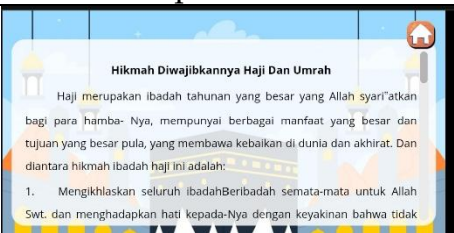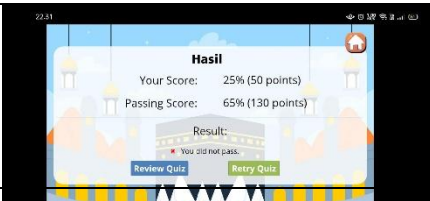Design Look: Clean design with a white background and a prominent Kaaba illustration on

the left side.

Profile Content: Displays details such as "name", "religion", "gender", "address", "education", "Islamic religion", and "phone number".

Function: Present basic user information, adding a personal touch to the media.

Before product development is carried out, there are several revisions that need to be made based on the results of needs analysis and input from experts as well as initial observations in the field. This revision includes adjustments to the content of the material to better suit the characteristics of students, improvements to the design of the media display to make it more attractive and interactive, and improvements to the flow of information delivery to make it more systematic and easy to understand. In addition, ensuring that the media developed can be used optimally in the learning process. This revision is an important first step to ensure that the final product is truly relevant, quality, and able to respond effectively to learning needs as shown in table 4.2 of the following interactive media development product revisions:

Table 4.2 Revision of Interactive Media Development Products

Yes	Initial Plan	Revision
1.	Voice charging across menus	Voice charging is only partial
2.	Number of questions 20	Number of questions 25
3.	Fixes for incorrect sentences and spacing layouts	Fixing incorrect sentences and merging them
4.		

Appearance of the initial plan	Fix adding a print to each result of the evaluation

Improvements in the initial design include poor spelling or use of space and additions that are suggested by experts to the product to be distributed.

C. *Development*

The next stage is the development stage, which aims to develop and produce interactive media products that are valid, practical, and effective. This development process includes several stages, namely: Validation stage, which is carried out by media experts, material experts and linguists to assess the feasibility of product content, design, and functionality. The practicality test stage, which involves students as users to find out the level of ease and comfort in using the product. The effectiveness test stage, which aims to measure the extent to which the use of interactive multimedia is based on *articulate storyline* can improve student learning outcomes.

1. Validation

The main instrument used is the questionnaire. This validation process is essential to ensure that the data collected will truly reflect an objective assessment of the quality of the material and media, as well as its practicality. The results of the instrument validation, both for the material, media and language aspects, will be presented in detail in table 4.2 of the following media, material and language questionnaire validation:

Table 4.3 Validity of Media, Material and Language Questionnaires

Yes	Aspects	Likert scale	Percentage
1	Media	4,67	93.33%
2	Material	4,44	88,89%
3	Language	4,43	88.57%
	Sum	4,51	90,26%

Based on the results of the assessment of interactive learning media based on *articulate storyline*, an overall average score of 4.51 with a percentage of 90.26% was obtained, which was included in the "Very Valid" category. In detail, the media aspect obtained the highest score with a score of 4.67 or 93.33%, indicating that the appearance and design of the media

were considered very good and attractive. The material aspect obtained a score of 4.44 or 88.89%, which indicates that the content or content of the material is in accordance with the learning objectives and is quite comprehensive. Meanwhile, the language aspect obtained a score of 4.43 or 88.57%, indicating that the use of language in the media is quite clear, communicative, and easy to understand by students. Thus, it can be concluded that this interactive media based on *articulate storyliners* is very suitable for use as a learning medium, both in terms of appearance, content, and language used.

1.   Media validation

The assessment of the media is carried out through a validation process by several validators. The aspects assessed include various indicators related to the feasibility of the media. The assessment was given by three validators (V1 and V2) using a certain scale. The results of media validation are presented in detail in table 4.3 media validation *articulate storyline* next:

Table 4.4 *Articulate Storyline Media Validation*

Aspects	Indicator	Number of questions	Valuation	
			V1	V1
Media	Product usage	3	5	4
	Media quality	15	4,67	4,27
	Benefit	7	5	4,71
Sum		25		
Average			4,8	4,36
Percentage			96%	87,20%
			91,5%	

Media validation on interactive media has been carried out by 2 media experts, focusing on the quality of Hajj and Umrah materials contained in the media. The results of the assessment show that this interactive media as a whole is categorized as "Very Valid". Media expert validator I gave an average score of 4.8 with a percentage of 96%, Media expert validator II gave an average score of 4.36 with a percentage of 87.20%, Overall Assessment Overall, the average assessment of 2 media validators was 4.58 with a percentage of 91.5%. This figure confirms the high quality and validity of the interactive media that has been developed.

2.   Material validation

The assessment of the material is carried out through a validation process by several validators. The aspects assessed include various indicators related to the fiqh material of Hajj and Umrah. The assessment is given by three validators (V1, V2, and V3) using a certain scale. The results of the material validation are presented in detail in table 4.4 of the following Hajj and Umrah material validation:

Table 4.5 Validation of Hajj and Umrah Materials

Aspects	Indicator	Number of questions	Valuation		
			V1	V2	V3
Material	Content Eligibility	2	4,5	5	5
	Material Accuracy	4	4,75	4,75	5

	Material Up-to-Date	3	4,66	4	5
	Presentation Eligibility	8	4,37	4,62	5
	Encourage Curiosity	3	4,66	5	5
Sum		20			
Average			4,55	4,6	5
Percentage			91%	92%	100%
			94,3%		

Validation of materials on interactive media has been carried out by 3 material experts, focusing on the quality of Hajj and Umrah materials contained in the media. The results of the assessment show that this interactive media material as a whole is categorized as "Very Valid". The assessment of the Material Expert Validator I gave an average score of 4.55 with a percentage of 91%. Material Expert Validator II gave an average score of 4.6 with a percentage of 92%, Material Expert Validator III gave an average score of 5 with a percentage of 100%, Overall Assessment Overall, the average assessment of 3 material validators was 4.71 with a percentage of 94.3%. This figure confirms the high quality and validity of the interactive media materials that have been developed.

3. Language Validation

Assessment of the language is carried out through a validation process by several validators. The aspects assessed include various indicators related to the language contained in the media. The assessment is given by three validators (V1, V2, and V3) using a certain scale. The results of media validation are presented in detail in table 4.5 language validation *articulate storyline* next:

Table 4.6 *Articulate Storyline Language Validation*

Aspects	Indicator	Number of Questions	Valuation	
			V1	V2
Language	Language Clarity	3	4,66	4,66
	Grammatical Accuracy	3	4,66	4,66
	Language Harmony with Material	3	4,66	5
	Politeness and Language Etiquette	3	5	4,66
Sum		12		
Average			4,75	4,75
percentage			95%	

Language validation on interactive media has been carried out by 2 linguists, with a focus on language on the material on the interactive material of Hajj and Umrah material contained in the media. The results of the assessment show that this interactive media language as a whole is categorized as "Very Valid". The Linguist Validator Assessment I gave an average score of 4.75 with a percentage of 95%. Linguist Validator II gave an average score of 4.75 with a percentage of 95%, Overall Assessment, the average

assessment of the 2 language validators was 4.75 with a percentage of 95%. This figure confirms the high quality and validity of the interactive media languages that have been developed.

2. Practicality

1. Teacher practicality

To find out the level of practicality of the learning media developed, an assessment was carried out by teachers as direct users. This assessment includes several indicators related to the ease of use of media in the learning process. The results of the assessment of practicality by teachers are presented in table 4.6 teacher practicality *articulate storyline* next:

Table 4.7 Practicality of *Articulate Storyline Teachers*

Aspects	Valuation	
	V1	V2
Likert Scale Accumulation	4,06	4,53
Percentage	81%	91%
	86%	

Based on the results of the questionnaire given to 2 fiqh teachers, the average score of 4.06 and 4.53 was obtained. These values are then converted into percentages, resulting in figures of 81% and 91%. This percentage shows that the developed media is in the "Very Practical" category because it is in the range above 81%. In other words, the learning media used has met the practicality aspect from the teacher's point of view, both in terms of ease of use, attractive appearance, and effectiveness in supporting the learning process. Therefore, it can be concluded that the interactive learning media developed is very feasible to be used in learning activities based on the results of practical assessments by teachers.

2. Student practicality

To find out the level of practicality of the media from the perspective of students as end users, a limited trial involving 3 students was conducted. Each student was asked to give an assessment of the media used based on direct experience in learning after completing the results of the limited trial on 3 students, the test was carried out on a larger scale, namely one class of 23 people. The results of the assessment are then converted into a percentage and displayed in table 4.7 student practicality 1 *articulate storyline* next:

Table 4.8 Practicality of Students *Articulate Storyline*

Test	Number of students	Scale Accumulation	Percentage%
1	3	4,74	94,89%
2	23	4,64	92,87%

Based on the results of the questionnaire that had been given to 3 students at the trial stage, it produced practical media with a percentage of 94.89% and at the practicality stage to 23 students, an average score of 4.64 was obtained. This value is then converted into a percentage so that a result of 92.87% is obtained. These results show that the developed media is in the "Very Practical" category, because it is in the

percentage range above 81%. This means that the media used has met the practicality aspect from the student's point of view, both in terms of ease of use, attractive appearance, and effectiveness in supporting the learning process. Thus, it can be concluded that the interactive learning media that has been developed is very feasible to be used in learning activities based on the results of practicality from students.

3. Effectiveness

To determine the effectiveness of the learning media developed, a trial was carried out on students by giving an initial test (*pretest*) and final test (*posttest*). The results of these two tests were then analyzed to determine the improvement of student learning outcomes after using media. Here is the result data *pretest* and *posttest* students in Table 4.8 effectiveness *articulate storyline*:

Table 4.9 Effectiveness *of Articulate Storyline*

No	Student's name	Valuation			(x) d = (d-Md)	(X2) d
		Pretest	*posttest*	D		
1	P1	64	92	28	- 2,78	**7,74**
2	P2	72	88	16	- 14,78	218,53
3	P3	52	92	40	9,22	84,96
4	P4	60	80	20	- 10,78	116,26
5	P5	80	100	20	- 10,78	116,26
6	P6	48	96	48	17,22	296,44
7	P7	68	84	16	- 14,78	218,53
8	P8	76	88	12	- 18,78	352,79
9	P9	84	100	16	- 14,78	218,53
10	P10	88	100	12	- 18,78	352,79
11	P11	56	96	40	9,22	84,96
12	P12	64	84	20	- 10,78	116,26
13	P13	24	80	56	25,22	635,92
14	P14	40	92	52	21,22	450,18
15	P15	56	88	32	1,22	1,48
16	P16	60	96	36	5,22	27,22
17	P17	88	100	12	- 18,78	352,79
18	P18	52	84	32	1,22	1,48
19	P19	72	88	16	- 14,78	218,53
20	P20	36	92	56	25,22	635,92
21	P21	44	88	44	13,22	174,70
22	P22	40	100	60	29,22	853,66
23	P23	68	92	24	- 6,78	46,00
SUM				708		

$$M_d = \frac{\sum d}{N}$$

$$M_d = \frac{708}{23}$$

Md = 30,78

$$t = \frac{M_d}{\sqrt{\frac{\sum d^2 - \frac{(\sum d)^2}{N}}{N(N-1)}}}$$

$$t = \frac{30,78}{\sqrt{\frac{5581,9}{23(22)}}} \quad t = \frac{30,78}{\sqrt{\frac{5581,9}{23(22)}}}$$

$$t = \frac{30,78}{\sqrt{\frac{5581,9}{23(22)}}}$$

$$t = \frac{30,78}{\sqrt{11}}$$

t = 9,27

Effectiveness test of interactive media-based products *articulate storyline* showed very positive results. After comparing scores *pretest* and *posttest*, found to be significant improvement in the learning outcomes, statistical analysis using the t-test produced a value t-count of 9.27. With a degree of freedom (df) of 22 (obtained from N-1, where N=23) and a degree of significance (A) 0.05, value T-table is 2,074. Because T-Count (9.27) is greater than T-Table (2.074), this statistically proves the existence of Significant differences between the results before and after the use of this learning media.

4.   *Disseminate*

At this stage of dissemination, the interactive media based on *articulate storylines* that have been developed was distributed to parents, teachers, and students at MTsN 8 Agam. The media is ready to be used by teachers and students in the learning process of Fiqh subjects. The dissemination by teachers aims to make this interactive media can be used sustainably every year in grade VIII MTsN 8 Agam. The spread of bias is carried out by sending interactive media applications through *whatsApp* and *google drive links*.

Discussion

This research is a research *and development* that uses the Four-D development model, which consists of four main stages: *define, design, development,* and *dissemination*. The product developed is an interactive media based *on articulate storyline*, which was tested on grade VIII students of MTsN 8 Agam, with a total of 23 test participants. The process of developing learning media is carried out systematically through four main stages, namely: *define, design*, development, and *dissemination*.

At the definition stage, a series of initial activities were carried out aimed at identifying the needs and foundations in media development. This activity includes curriculum analysis to ensure that the material developed in the learning media is in accordance with the Competencies and Achievement Indicators contained in the revised 2013 Curriculum. This is important so that the media developed does not go out of the corridor of national education

standards and supports the achievement of instructional goals systematically. According to Dick, Carey, & Carey in (Hakim 2018) The suitability of the media with instructional objectives is very important so that the media really supports the learning process effectively, analysis of student characteristics to understand the background and learning needs of students, analysis of assignments to find out competencies that must be achieved, analysis of concepts so that material is prepared systematically, and formulation of learning objectives as the main direction in the preparation of media content.

This stage is an important foundation in the development process, because from the results of the analysis and formulation, a comprehensive picture of the form, content, and approach to be used in learning media is obtained. The results of this definition stage then become the basis for designing and developing interactive learning media based on *articulate storylines*, which is expected to be able to support the learning process effectively and interesting for students.

The validation process is carried out with the aim of ensuring that the interactive media developed has a high level of feasibility, both in terms of material, language and media aspects. If the media is declared valid, then it can be concluded that the media is suitable for use in the learning process. On the other hand, if the validation results show that the media has not met the eligibility criteria, then it is necessary to revise based on input from experts until the media is declared to meet the standards and can be continued to the next stage of research.

Validation of interactive media based *on articulate storylines* involves three types of validators, namely media experts, language experts, and material experts. Media experts come from lecturers who have expertise in the field of learning media, language and materials. Validation data is collected through an assessment questionnaire filled out by each validator. The validation results showed that the media aspect obtained an average score of 4.76, which is equivalent to a percentage of 95%, and was included in the category of "Very Valid", the language aspect obtained 4.60 with a percentage of 92% Meanwhile, the material aspect obtained an average score of 4.57 with a percentage of 91.2%, which was also categorized as "Very Valid". This shows that the learning media developed has met the feasibility standards both in terms of content and media appearance.

This is in line with Ali's opinion (2024) which states that learning media ideally meets the criteria of ease of vision, visual appeal, and accuracy in the delivery of material. The designed media must be readable clearly and have an attractive design, so as to be able to foster learning motivation in students. Based on the results of the assessment of one validator of two media, two languages and three validators of material experts, interactive media based on *articulate storyline* developed is declared valid for use, both in direct learning in the classroom and in independent learning by students. Validation from these experts shows that the media has met the required quality standards, so it is suitable for use in the learning process and can be continued to the practicality test stage.

The practicality of interactive media based *on articulate storylines* is carried out by trial. The trial was carried out by 23 students of grade VIII MTsN 8 Agam. The assessment of the practicality of interactive media was obtained 92.87% and with the category of very practical. This practicality stage is intended to see the extent to which the developed media is accepted by students in its use. If the media is categorized as practical, it means that the media can be used in the learning process carried out in the classroom or independently in the classroom.

Based on the responses given by students, the use of interactive media is based on *articulate storyline* is considered very practical in supporting the learning process, especially

in Fiqh subjects. This media makes it easier for students to understand the material and carry out learning activities effectively. This is in line with Hilman Mauladi's opinion (2024) which states that learning media needs to be assessed in terms of practicality and simplicity, so that it can be easily used by students in order to achieve learning goals. The practicality stage in media development means that in addition to the content and design aspects, the level of ease of use is also an important focus. The media must be able to be operated both with the assistance of the teacher and independently by the students, so that it is flexible in various learning situations.

The next stage in interactive multimedia development *articulate storyline* is an effectiveness test, which is carried out through the administration of *Pretest* and *posttest* to students. *Pretest* given before students use learning media, while *posttest* given after students learn to use the interactive media. The results of the effectiveness test showed that the t-calculated value was 9.27, while the t-table value with the degree of freedom (df) was N-1 = 23-1 = 22 and the significance level (α) of 0.05 was 2.074. Since t-calculation > t-table (9.27 > 2.074), it can be concluded that there is a significant difference between the results *Pretest* and *posttest*. Thus, interactive media based *articulate storyline* is declared effective for use in the learning process, especially in Fiqh subjects. These findings are in line with opinion (Anwar et al. 2022) which emphasizes that learning media must pay attention to the level of effectiveness of its use, so that it can really help achieve learning goals optimally.

CONCLUSION

Based on the results of the research and development that has been carried out, it can be concluded that the interactive learning media based on *articulate storyline* developed for fiqh subjects of Hajj and Umrah material class VIII MTsN 8 Agam has proven to be valid, practical, and effective to be used in the learning process. This media is developed through the Four-D (*Define, Design, Develop, Disseminate*) model, with systematic stages starting from needs analysis to the dissemination of the final product.

The validation results from media, material, and language experts showed that media was in the very valid category, with a score of 4.58 with a percentage of 91.5% for media, 4.71 with a percentage of 94.3% for the material and 4.75 with a percentage of 95% for Language. The practicality test by teachers and students also showed very practical results, with a percentage of 92.87% of students and 86% of teachers. Furthermore, the effectiveness test conducted through *pretest* and *posttest* showed a significant increase in student learning outcomes, with a t-count value of 9.27 which is greater than the t-table of 2.074 (at α = 0.05). This proves that the interactive media developed is effective in increasing students' understanding of Hajj and Umrah materials.

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