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Interactive Digital Storybook: ICT-Based Innovation in Learning the History of Islamic Culture

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Article Information	Abstract
Received: 9 January 2024	<i>The main challenges in learning the history of Islamic culture include students' perceptions of being more enthusiastic, low student participation, limited teacher staff, and the need to use more ICT-based learning media. This research aims to make interactive digital storybooks a learning tool to deepen their understanding of the history of Islamic culture and create exciting and interactive learning resources that can increase student engagement and expand their knowledge about values, practices and essential events in Islamic culture. This type of research and development uses the ADDIE model (analysis, design, development, implementation and evaluation), with the research subjects being teachers and students of Madrasah Ibtidaiyah Swasta (MIS) Bhakti Mandiri Pematang Siantar, Medan, Indonesia. The results show that interactive digital storybooks significantly increase students' understanding and engagement in learning. However, it's worth being aware of some drawbacks, such as limited accessibility and potential technical issues. Nevertheless, interactive digital storybooks are still an adequate alternative in supporting students' learning about the history of Islamic culture. Limitations of this study include limited accessibility, potential technical problems and difficulties in navigating the interface in interactive digital storybooks. This research implies that interactive digital storybooks are an adequate alternative to support the learning of Islamic cultural history and have the potential to be improved by paying attention to factors such as suitability of content, pleasant design, and teacher involvement.</i>
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Tantangan utama dalam pembelajaran sejarah kebudayaan Islam antara lain persepsi siswa yang lebih antusias, rendahnya partisipasi siswa, terbatasnya tenaga guru, dan perlunya lebih banyak menggunakan media pembelajaran berbasis ICT. Penelitian ini bertujuan untuk menjadikan buku cerita digital interaktif sebagai sarana pembelajaran untuk memperdalam pemahaman mereka tentang sejarah budaya Islam dan menciptakan sumber belajar yang menarik dan interaktif yang dapat meningkatkan keterlibatan siswa dan memperluas pengetahuan mereka tentang nilai-nilai, praktik dan peristiwa penting dalam budaya Islam. Jenis penelitian dan pengembangan ini menggunakan model ADDIE (*Analysis, Design, Development, Implementation and Evaluation*), dengan subjek penelitian adalah guru dan siswa Madrasah Ibtidaiyah Swasta (MIS) Bhakti Mandiri Pematang Siantar, Medan, Indonesia. Hasil penelitian menunjukkan bahwa buku cerita digital interaktif secara signifikan meningkatkan pemahaman dan keterlibatan siswa dalam pembelajaran. Namun, ada beberapa kelemahan seperti aksesibilitas yang terbatas dan potensi masalah teknis. Meskipun demikian, buku cerita digital interaktif masih menjadi alternatif yang memadai dalam menunjang pembelajaran siswa tentang sejarah kebudayaan Islam. Keterbatasan penelitian ini meliputi keterbatasan aksesibilitas, potensi permasalahan teknis dan kesulitan dalam menavigasi antar muka pada buku cerita digital interaktif. Penelitian ini menyiratkan bahwa buku cerita digital interaktif merupakan alternatif yang memadai untuk mendukung pembelajaran sejarah budaya Islam dan berpotensi untuk ditingkatkan dengan memperhatikan faktor-faktor seperti kesesuaian isi, desain yang menyenangkan, dan keterlibatan guru.

I. INTRODUCTION

The history of Islamic culture plays a vital role in forming students with character by presenting moral values from historical events and Islamic figures, facilitating learning to internalize values (Rohman, 2023). Hakim emphasized that learning the history of Islamic culture significantly impacts students' moral and intellectual aspects through learning Islamic historical events to formulate Islamic morals and improve intellectual abilities (Hakim, 2023). Rakhmat underlines that learning Islamic Cultural History does not just emphasize cognitive aspects but also explores the values, meanings, wisdom and theories of history, which are very important for developing the character and morals of students in Madrasas (Rakhmat, 2016).

Studying the history of Islamic culture often challenges its effectiveness and quality, mainly because of students' perceptions that learning could be more

exciting (Hasmar, 2020). Several problems that usually arise in *Sejarah Kebudayaan Islam (SKI)* learning include low student participation, teacher constraints, limited facilities and infrastructure, limited time, negative views of the subject, dominance of cognitive aspects, and monotonous learning methods (Rasyid, 2018). Learning the History of Islamic Culture in Madrasah or Schools is often associated with the stigma of rote memorization and a less in-depth approach, which can hinder a deeper understanding of the material (Rofik, 2015).

Many teachers have not utilized learning technology optimally, especially in ICT-based learning media, because they need more understanding about integrating technology effectively in the learning process (Kusuma, 2019; Muntari et al., 2023). At one of the Madrasah at MIS Bhakti Mandiri Pematang Siantar, Mr Zainal Arifin Batubara, S.Pd, teacher of Islamic Cultural History, revealed that student learning outcomes tend to be low, with the majority of students not having reached the minimum standard of completion. The main problems include students' lack of interest in learning, partly caused by the lack of exciting learning media, even though ICT-based facilities are available—the gap between the availability of technology and its use in learning results in low student learning achievement.

Considering existing conditions and resources, it is necessary to develop learning media for Islamic Cultural History subjects that utilize ICT facilities available in schools. This step aims to overcome low student learning outcomes by referring to relevant previous research. Learning media is emphasized maximally to improve student learning outcomes, considering its influential role in conveying information during the learning process.

According to constructivism theory, in developing ICT-based Islamic Cultural History learning media, emphasis is placed on the process where individuals actively build their knowledge through experience, reflection, and interaction with the environment (Mann & MacLeod, 2015). Using ICT-based storybooks, students can be actively involved in learning, fulfil the principles of constructivism by exploring content, building relationships between new information and existing knowledge, and increasing their understanding of Islamic history (Sayaf, 2023).

The use of ICT in learning Islamic Cultural History can facilitate more active and in-depth knowledge construction for students.

This research aims to develop ICT-based storybooks as an innovative learning tool that can deepen students' understanding of the history of Islamic culture. The main focus is creating engaging and interactive learning resources to increase student engagement and broaden their views on values, practices and essential events in Islamic culture. This research also explores the challenges and opportunities of using technology in religious education to integrate ICT into learning. To increase the effectiveness of the teaching and learning process and provide a more interactive learning experience for students.

Previous research has highlighted various aspects of developing learning media, including picture story books, to improve school learning. Thorita developed picture storybooks as a character learning tool for fourth-grade elementary school students, with excellent validation results from various parties, including teachers and students (Thorita, 2021). Alpiyah researched the use of picture-based environmental picture storybooks to increase 4th-grade elementary school students' reading interest, with the research results showing a significant influence on students' reading interest (Alpiyah, 2022). Lestari et al.'s research explored the development of interactive learning media for the *Buku Digital* (BUDI) History of Islamic Culture book in elementary schools, with results showing very valid qualifications from various parties, including validators, teachers and students (Lestari et al., 2022). Kartika et al., and Topipah et al., each developed picture storybook media for disaster mitigation education and environmental education in elementary schools, with excellent validation results from experts, as well as promising effectiveness test results in improving students' understanding and skills (Kartika et al., 2023; Topipah et al., 2023). These studies collectively provide valuable insights into learning media development, especially picture book stories, profoundly improving students' learning and interest in school.

Comparative analysis with previous research shows that although Thorita's research succeeded in developing picture story books as a valid literacy learning tool for fourth-grade elementary school students, the focus was limited to

character education rather than learning the history of Islamic culture. Likewise, Alpiyah's research on environmentally based picture book stories and research by Lestari, Kartika, and Topipah did not specifically explore learning the history of Islamic culture. Therefore, further studies are needed to continue to focus on developing ICT storybooks based on specific targets for learning the history of Islamic culture in elementary schools, integrating aspects of character learning with a deep understanding of Islamic history and culture.

II. METHOD

This research method applies a Research and Development approach, which aims to develop a product and test its effectiveness (Sugiono, 2017). The Development process uses the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model, which is a series-step design To create effective learning and gain optimal (Rayanto & Sugianti, 2020; Ikhwan, 2020).

In the ADDIE model, the analysis stage includes identifying student needs, learning objectives, and environmental factors. The design stage looks at strategy, design, and layout. The development stage includes making an ICT-based storybook, with trials by media, material and language experts and practicability tests. The implementation stage was carried out on class III students at *Madrasah Ibtidaiyah*. The evaluation stage measures the program's effectiveness, including pre-test and post-test. Pre-test and post-test analysis uses the Paired Sample T-test to determine any differences before and after using the program. The N-Gain test will also assess the significance of learning outcomes after using the program.

III. FINDINGS AND DISCUSSION

Stage 1. Analysis

Analysis of the learning needs of grade III and IV students involves an understanding of the life of Arab society before Islam to inspire the practice of love, hard work, and answers that can be endured every day. They are also expected to understand the life and morals of the Prophet Muhammad as an

example in showing polite and caring attitudes in everyday life. In addition, understanding essential events such as apostolate, fortitude, hijrah, and the Prophet's Isra Mi'raj is expected to inspire students to overcome challenges in the digital era with solid determination (Capaian Pembelajaran PAI dan Bahasa Arab Kurikulum Merdeka Pada Madrasah, 2022).

In analyzing learning outcomes, it is hoped that students can understand the life of Arab society before Islam to internalize attitudes of love, hard work, and answers that can be borne in everyday life. They are also expected to be able to understand the life and personality of the Prophet Muhammad as an inspiration. To practice polite and caring attitudes in the context of today's life. Understanding essential events in Islamic history, such as apostolate, steadfastness, *hijrah*, and the Prophet's *Isra Mi'raj*, is expected to encourage students to face the challenges of the digital era persistently.

After analyzing students' needs and characteristics, it was concluded that they need learning media to enhance their learning experience through an attractive display and the ability to create interactive learning. This shows the importance of creating a pleasant learning atmosphere and providing more exciting and relevant resources for learning Islamic culture.

Stage 2. Design

Framework General Program or Material Learning

Developing a book about the history of Islamic culture based on ICT begins with several critical stages. The first stage includes making a book cover that suits the material to be presented, with lecturer guidance to ensure the suitability of the design. Next, selecting image characters, background, colour, book size, and type of writing becomes the focus of determining the book's aesthetics. This stage provides an initial overview of development. Next, choose the overall structure of the book's story.



Figure 1. Design a beginning book story ICT-based

The ICT-based History of Islamic Culture storybook aims to increase students' understanding of Islamic culture, its values, and its role in history. The main aim is for participants to understand the life of Arab society before Islam as an inspiration. Form an attitude of love, hard work, and answers that can be endured. Apart from that, it is hoped that we can understand the life and morals of the Prophet Muhammad SAW as an example of a polite and caring attitude in the modern era. Students are also expected to be able to understand important events such as apostolate, fortitude, *hijrah*, and the *Isra' Mi'raj* Rasulullah saw as inspiration in facing the challenges of the digital era persistently. This storybook is designed to teach Islamic cultural and historical values effectively, aiming to build positive attitudes and be relevant to the current era.

Strategy Teaching

Teaching strategies for ICT-based Islamic Cultural History storybooks for children aged 9 to 10 years at *Madrasah Ibtidaiyah* can include several exciting and interactive approaches. They *first* used visual elements such as simple, bright and animated illustrations to attract children's attention and help them understand the historical design of Islamic culture. *Second*, a narrative approach introduces

Islamic historical figures in-depth and relevant to children's daily lives. *Third*, interactive activities such as reflection questions or simple games should be included to involve children in learning actively. *Fourth*, please pay attention to children's learning preferences by providing variations in story content, such as audio, short videos, or animations, so they can learn through various modalities that suit their respective learning styles.

Design Teaching

Teaching design for ICT-based history of Islamic culture storybooks must be aware of the diversity of students and choose appropriate teaching methods to meet their learning needs. Teaching may include activities that involve active student involvement, such as discussion groups, projects, or role plays. The learning objective of this storybook is to increase students' understanding of Islamic culture, its values, and its role in history. Students are expected to be able to understand the life of Arab society before Islam and the character of the Prophet Muhammad saw as an inspiration to carry out a positive attitude in everyday life. This storybook must be designed to be an effective means of teaching Islamic cultural values and history, building positive attitudes, and being relevant to today's times. Inclusive and interactive teaching methods will ensure all students can be maximally involved and achieve the desired learning goals.

Design the Format and Flow of Material Learning

The ICT-based History of Islamic Culture storybook is presented in a digital multimedia format to increase student interest and involvement. The storyline of "Destroying Elephant Troops" is designed ok, starting with an introduction to the background of the event and its context, namely the failure of the territorial expansion attempt by Abraha al-Asyram al-Habasyi together with an army of elephants sent from Yemen to Mecca to be destroyed. Kaaba. The plot shows conflict and a pivotal moment when the elephant army fails to conquer Mecca. The story's climax highlights the dramatic moment when the Kaaba faces the threat of destruction but is saved by God's intervention through a bird attack that brings a deadly plague to Abraha's army. The resolution story emphasizes learning

about God's power and protection and the importance of self-confidence and fortitude in facing challenges. This storybook can provide an interesting and in-depth learning experience about the history and values of Islam to students aged 9 to 10 years at the *Madrasah Ibtidaiyah* level and strengthen their learning preferences through digital media.

After reading "The Elephant Troop of Destruction", students will be involved in a series of learning activities related to the story's content. First, they will participate in a discussion group to explore the meaning and moral message of the story and consider how the power of faith and God's protection are reflected in the incident. Next, students will conduct writing exercises by writing short essays about answers that are not enough individually to maintain religious and cultural values, and connecting them to current situations or events that show the importance of self-confidence and fortitude in facing challenges. The next activity is a role game, where students will play characters in the story and dialogue between Abdul Muttalib and Abraha and express their opinions about resistance to the attack on the Ka'aba. Finally, students will create a comic that visually depicts the channel's story, highlighting important moments, such as the development of the Sa'an cathedral, the meeting of Abdul Muttalib and Abraha, and Abraha's attack on the birds' thwarted plan. Through the Suite activities here, students will deepen their understanding of the story's content, identify its values, and connect it to real-life situations. In addition, they will also develop critical thinking skills, express opinions, and collaborate with classmates.

Interactive multimedia is suitable media and technology to convey the story "Elephant Troops of Destruction" using Canva. In Canva, teachers can combine images, animation and sound to create engaging and interactive learning experiences for students. For example, teachers can use pictures to describe the development of Sa'an Cathedral, animation to illustrate the plan of a bird attack that thwarted Abraha, and sound to add narration or supporting sound effects to the story. With Canva, teachers can create dynamic multimedia, increasing student engagement and understanding of stories.

Stage 3. Development

Interactive multimedia is suitable media and technology to convey the story "Elephant Troops of Destruction" using Canva. In Canva, teachers can combine images, animation and sound to create engaging and interactive learning experiences for students. For example, teachers can use pictures to describe the development of Sa'an Cathedral, animation to illustrate the plan of a bird attack that thwarted Abraha, and sound to add narration or supporting sound effects to the story. With Canva, teachers can create dynamic multimedia, increasing student engagement and understanding of stories.

This section is a product evaluation based on evaluation from validator experts, with the following guidelines:

$$\bar{x} = \frac{\sum_{i=1}^n x_i}{n}$$

With x_i , it can be calculated with $\frac{a \text{ total}}{\text{maximum score}}$

Information:

\bar{x} = Final average value

x_i = Total score of assessment answers

n = Number of respondents

Next, the results obtained will be customized to become statements for set criteria products that have been developed.

Table 1. Criteria Appropriateness Product Source (Purwono, 2008)

Quality Score	Eligibility criteria	Information
$3,26 < \bar{x} \leq 4,00$	Very Good / Very Well Used	No Revisions
$2,51 < \bar{x} \leq 3,26$	Good / Usable	Partial Revision
$1,76 < \bar{x} \leq 2,51$	Not Good/Less Usable	Partial Revision and Reassessment of Material
$1,00 < \bar{x} \leq 1,76$	Very Bad/Not Worth Using	Number of Revisions

Validation Test Results

Table 2. Validation Test Results Material, Media and Language Expert (Arikunto, 2017)

Feasibility test	Score	Eligibility criteria	Information
Material	3,2	Good / Usable	Partial Revision
Media	3,2	Good / Usable	Partial Revision
Language	3.25	Good / Usable	Partial Revision

Practicality Test

The practicality test is calculated using the formula as follows:

$$P = \frac{TS_e}{TS_h} \times 100\%$$

Information:

P = Percentage sought

TS_e = Total answer score

TS_h = Total expected maximum score

The assessment parameters are as follows:

Table 3. Criteria Practicality (Arikunto, 2017)

No	Practicality Test Percentage	Criteria
1	81%-100%	Very practical
2	61%-80%	Practical
3	41%-60%	Less Practical
4	21%-40%	Not practical
5	0%-20%	Not Very Practical

Practicality Test Results Product

Table 4. Practicality Test Results Product (Arikunto, 2017)

Practicality Test	Score	Criteria
Teacher	92.5%	Very practical

At the prototype testing stage, user responses to the ICT-Based History of Islamic Culture book are vital in evaluating the quality and effectiveness of the product. Users provided feedback regarding navigation difficulties, content comprehension, and use of interactive features, as well as technical issues such as long loading times and accessibility limitations. Use feedback forms or focus groups to help identify areas for improvement, such as error content or lack of engagement in interactive activities. Users also provide feedback regarding their preferences, including suggestions for additional features, design improvements, or content enhancements. By analyzing user feedback, developers can iterate on prototypes to improve quality before officially launching.

The prototype testing results indicate the need to carry out several iterations and adjustments to the ICT-based History of Islamic Culture book to improve quality and effectiveness before the final version is produced. Actions that will be

taken include improving the user interface (UI) to improve navigation and aesthetics, reducing page loading times and fixing detected display errors. The content will be refined based on user return verses, ensuring clear and relevant information and adding more exciting and informative story elements. Interactive features will be optimized with more explicit instructions and increased responsiveness. Identified technical issues such as bugs, loading speed, and device accessibility will be fixed. New features will be included according to user requests, such as interactive elements or added content. Further validation will ensure that the implemented improvements meet user needs and expectations. By iterating and adapting the story of this book, it is hoped that it can provide a better learning experience for target users before the final version is launched.

Stage 4. Implementation

Implementing ICT-based storybooks at MIS Bhakti Mandiri Pematangsiantar will go through several critical stages. First, teachers will undergo special training to integrate book stories into the curriculum, including effective teaching strategies and interactive features. Technical support will also be provided to teachers to handle technical problems that may arise. Next, storybooks will be introduced to students as additional learning resources that the teacher will integrate into daily learning activities. The implementation process will be monitored and evaluated periodically to ensure its effectiveness in increasing students' understanding of the history and values of Islamic culture.

Educators can start by introducing book stories as an exciting and interactive learning resource for students. Interactive features such as animations, images, and audio will help students understand the content in a visual and fun way. Discussion group activities or class activities can be organized to analyze and discuss stories and their values. Providing opportunities for students to collaborate, exchange opinions, and present understanding will also increase their involvement in learning. In addition, students can independently explore the book's story content through writing exercises, role-playing, or creating story-based creative projects.

Stage 5. Evaluation

Evaluation is an element that is very necessary to evaluate how effective a product or activity is, especially in a learning context (Jaya et al., 2022). Likewise, the process of learning and developing ICT-based storybooks also requires a series of continuous evaluations.

Evaluation Program Effectiveness

The results of the program evaluation show that the performance and responses of participants are in line with the learning objectives that have been set. Students succeed in achieving an understanding of the life of Arab society before the Islamic era by objectively internalizing attitudes such as affection, working hard, and answers that can be borne in everyday life. They also succeeded in understanding the life and characteristics of the Prophet as a source of inspiration for polite and caring attitudes in the context of today's life. Their understanding of significant events in Islamic history, such as apostolate, steadfastness, *hijrah*, and the *Isra' Mi'raj* Rasulullah saw, encourages students to face challenges in the digital era persistently. This evaluation involved grade III students, where a pre-test and post-test were carried out to measure their level of understanding before and after using ICT-based storybooks.

Pretest and Posttest

The evaluation was held to evaluate the effectiveness of ICT-based storybooks in increasing students' understanding of Islamic culture, the values contained in it, and its role in history. The research subjects were third-grade students who had previously been given pre-tests and post-tests. The test consists of 10 multiple-choice questions given to 21 students. Before being used, the test was tested for validity and reliability by applying it to class V, which had 14 students. Data were processed using SPSS version 16.0 software to obtain validity and reliability test results. The results show that a question is valid if the significance value is no more than 0.05.

Test the Validity of The Pre-Test and Post-Test Instruments

Table 5. Recap of Validity Test Results for Pre-test and Post-test Questions

Question Items	Important score	Information
Problem 1	0,000	Legitimate
Problem 2	0,000	Legitimate
Problem 3	0,000	Legitimate
Problem 4	0,000	Legitimate
Problem 5	0,000	Legitimate
Problem 6	0.006	Legitimate
Problem 7	0,000	Legitimate
Problem 8	0,000	Legitimate
Problem 9	0,000	Legitimate
Problem 10	0.001	Legitimate

The in-depth data table shows that all the questions analyzed were valid, with a significance value of less than 0.05. This indicates that each question in the test itself has a solid relationship to the design or material being tested and can effectively measure what the test is supposed to assess. Thus, the validity test results support the questions' suitability for use in evaluating students' understanding of learning material.

Pre-Test and Post-Test Reliability Test Results

Table 6. Reliability Test Results for Pre-test and Post-test Questions

Reliability Test	
Cronbach's Alpha	N Items
0.974	10

Based on the data in the table, the Cronbach's Alpha value is 0.974. This figure shows that the questions that have been prepared have a high level of consistency because exceeding a value of 0.60 is considered a good reliability standard. Therefore, these questions can be relied on to measure students' abilities consistently and competently. Thus, the reliability test results strengthen the belief that the data obtained is reliable and can be used confidently in evaluating student understanding.

Normality Test of Pre-test and Post-test Questions

The results of the data normality test using SPSS version 16.0 software show that the distribution of student learning outcomes data before and after using ICT-based storybooks in learning Islamic Cultural History (SKI) is standard. The next

step is to conduct a T-test to evaluate significant differences between student learning outcomes before and after using storybooks. Through this T-test, a deeper understanding of media use will be obtained, significantly affecting student learning outcomes.

Table 7. Data Normality Test Results

Test Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistics	Df	sign hand.	Statistics	Df	sign hand.
Prates	,196	21	,035	,854	21	,005
Post-test	,176	21	,090	,856	21	,005
A. Correction Significance of Lilliefors						

The normality test results using the Kolmogorov-Smirnov test showed a significance value of 0.035 for the pre-test and 0.090 for the post-test. The second mark exceeds the threshold limit of 0.05, which indicates that the pre-test and post-test data have a normal distribution. Therefore, the pre-test and post-test data meet the normality assumption.

After verifying that the second data set was normally distributed, a parametric test was carried out using the T-test for evaluation. There is a significant difference between the pre-test and post-test scores. The results of further data analysis will show a substantial difference between the pre-test and post-test scores after implementing ICT-based storybook media in SKI learning.

Table 8. Paired Sample T-Test Results

Paired Samples Test									
		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest-Posttest	-26.667	11,972	2,613	-32,116	-21,217	-10.207	20	,000

The table presents the results of data analysis using SPSS software to evaluate differences in learning outcomes before and after using ICT-based storybooks in learning the History of Islamic Culture at MIS Bhakti Mandiri Pematangsiantar. The significance value obtained from the analysis is 0.000, which is lower than 0.05. This shows a significant difference between learning outcomes before and after implementing ICT-based storybooks. Therefore, the

use of ICT-based storybooks has had a substantial impact on improving student learning outcomes in learning the History of Islamic Culture.

The data was processed using the N-Gain formula with the help of the SPSS version 16.0 application to determine how big the difference was. Processing these results provides a more detailed picture of how much student learning outcomes have improved after using ICT-based storybooks.

Table 9. N-Gain Value Criteria Source (Supriadi, 2021)

N-Gain Value	Criteria
$N - Gain \geq 0,70$	Tall
$0,30 - 0,70$	Currently
$0,00 - 0,29$	Low

Table 10. N-Gain Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
NGain_score	21	.33	1.00	.7011	.22900
NGain_percent	21	33.33	100.00	70.1134	22.89971
Valid N (listwise)	21				

From the N-Gain analysis, an average value of 0.7011 was obtained. According to the N-Gain value classification, this figure is included in the high category. This shows a significant increase in student learning outcomes after using ICT-based storybooks to learn the history of Islamic culture at MIS Bhakti Mandiri Pematangsiantar. These findings show that using ICT-based storybooks has a significant positive impact on increasing students' understanding and learning achievement. Therefore, applying ICT-based storybooks effectively improves student learning outcomes regarding SKI learning.

Student Responses to ICT-Based SKI Storybooks

The students' response to ICT-based storybooks in learning the History of Islamic Culture at MIS Bhakti Mandiri Pematangsiantar was encouraging. They show high enthusiasm for using book stories as a learning resource. Student involvement during the learning process also appears to be high; this is reflected in their active participation in various activities involved in ICT-based book story learning, such as discussions, interactive activities, and exploration of book story content.

This learning material has succeeded in increasing students' understanding of the History of Islamic Culture. With picture illustrations, animations and interactive storybook features, students can understand the learning content more easily and happily. They can absorb Islamic cultural values, understand the role of the Prophet Muhammad SAW, and relate learning to everyday life situations.

The positive response of students, the level of active participation during the learning process, and the increase in understanding shown after using ICT-based storybooks indicate the success of the learning material. This is to achieve the learning objectives that have been set.

Advantages and disadvantages

ICT-based storybooks have significantly contributed to learning the history of Islamic culture by presenting content appropriate to the curriculum, increasing student engagement through interactive features and animation, and providing a modern and innovative learning experience with a clear moral message. However, there are several drawbacks, such as limited accessibility, potential technical glitches, and difficulty navigating the interface. Even though I see it, ICT-based storybooks remain a practical choice in supporting students' learning about the history of Islamic culture, with opportunities to continue to be improved and improved by developers.

It is essential to study the factors that can influence the achievement of learning objectives in using ICT-based Islamic cultural history storybooks. Important criteria include content alignment with learning objectives, attractive design, satisfactory user experience, interactive features, adequate access, active teacher participation and student motivation. Elements to pay attention to. This can increase the effectiveness of book stories as a learning tool.

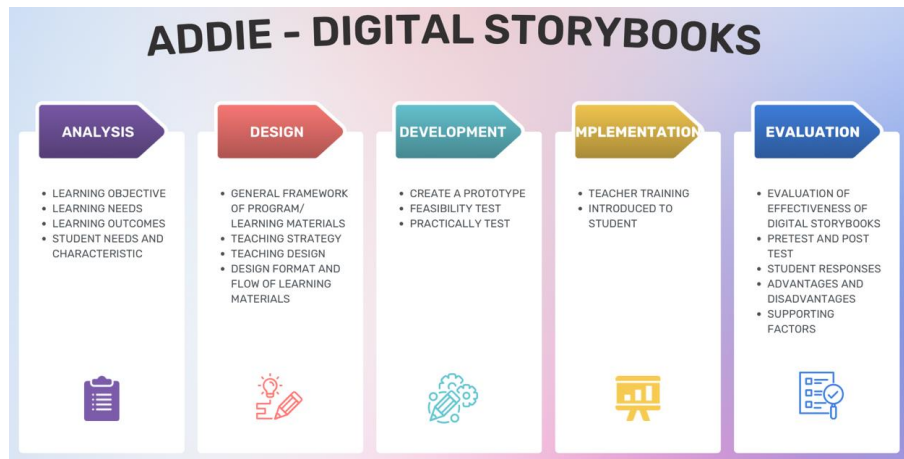


Figure 2. ADDIE Model Development of the SKI Interactive Digital Storybook

IV. CONCLUSION

The development of the ICT-based interactive digital storybook History of Islamic Culture began with an analysis of student study needs, which emphasized the importance of understanding the life of Arab society before Islam and the exemplary attitude of the Prophet. Stage design includes creating an attractive cover and selecting appropriate content. Analysis of learning achievement highlights the importance of students' understanding of Islamic culture and essential historical events. Teaching strategies involve an interactive approach and the use of multimedia technology. Prototype and implementation trials at *Madrasah Ibtidaiyah Swasta* (MIS) Bhakti Mandiri Pematang Siantar, Medan, Indonesia showed increased student understanding and positive responses to storybooks. Even though they have advantages, it is necessary to pay attention to weaknesses such as accessibility and technical obstacles; ICT-based storybooks are still effective in supporting learning about the history of Islamic culture.

The implications of this research imply that interactive digital storybooks are an adequate alternative to support learning about the history of Islamic culture and have the potential to be improved by paying attention to factors such as suitability of content, pleasant design, and teacher involvement.

V. BIBLIOGRAPHY

- [1] Alpiyah. (2022). *Pengembangan Buku Cerita Bergambar Berbasis Lingkungan untuk Meningkatkan Minat Membaca Peserta Didik Kelas IV Sekolah Dasar*. Program Pascasarjana Magister Keguruan Guru SD fakultas Keguruan dan Ilmu Pendidikan Universitas Lampung.
- [2] Arikunto, S. (2017). *Pengembangan Instrumen Penelitian dan Penilaian Program*. Pustaka Pelajar.
- [3] Hakim, S. (2023). Kontribusi Pembelajaran Sejarah Kebudayaan Islam di Madrasah Tsanawiyah Terhadap Pembentukan Moral dan Intelektual Siswa. *JUPE: Jurnal Pendidikan Mandala*.
<https://doi.org/http://dx.doi.org/10.58258/jupe.v8i1.4859>
- [4] Hasmar, A. H. (2020). PROBLEMATIKA PEMBELAJARAN SEJARAH KEBUDAYAAN ISLAM DI MADRASAH. In *Jurnal MUDARRISUNA: Media Kajian Pendidikan Agama Islam* (Vol. 10, Issue 1, p. 15). Universitas Islam Negeri Ar-Raniry. <https://doi.org/10.22373/jm.v10i1.6789>
- [5] Ikhwan, A. (2020). *Metode Penelitian Dasar (Menenal Model Penelitian dan Sistematikanya)*. STAI Muhammadiyah Tulungagung.
- [6] Jaya, I., Ananda, R., & Wijaya, C. (2022). *Evaluasi Pembelajaran Perspektif Transdisipliner*. Pusdikra Mitra Jaya.
- [7] Kartika, Y. M., Ardhyantama, V., & Tisngati, U. (2023). Pengembangan Media Buku Cerita bergambar untuk Meningkatkan Pemahaman Anak tentang Mitigasi Bencana. *Jurnal Pendidikan Dan Kebudayaan*, 13(1).
<https://doi.org/10.24246/j.js.2023.v13.i1.p76-86>
- [8] Capaian Pembelajaran PAI dan Bahasa Arab Kurikulum Merdeka pada Madrasah, Pub. L. No. Nomor 3211 Tahun 2022 (2022).
- [9] Kusuma, N. A. (2019). Survey of Use of Learning Media Based on Information Communication Technologies by Teachers in Bantul District D.I Yogyakarta. *Jurnal Fakultas Ilmu Keolahragaan*.
- [10] Lestari, P., Lisnawati, I. I., Ana, S., & Aeni, A. N. (2022). Pengembangan Media Pembelajaran Interktif Kibudi Books pada Bidang Sejarah Kebudayaan Islam di Sekolah Dasar. *Journal of Research and Thought on Islamic Education (JRTIE)*, 5(1). <https://doi.org/10.24260/jrtie.v5i1.2198>
- [11] Mann, K., & MacLeod, A. (2015). Constructivism: learning theories and approaches to research. In *Researching Medical Education* (pp. 49–66). Wiley. <https://doi.org/10.1002/9781118838983.ch6>
- [12] Muntari, Purwoko, A. A., Siahaan, J., Haris, M., & Supriadi. (2023). *Optimization of blended learning using ICT-based media for improving learning interest, critical thinking ability, and chemistry learning outcomes*. 080009. <https://doi.org/10.1063/5.0130559>
- [13] Purwono, U. (2008). *Standar Penilaian Bahan Ajar*. BNSP.

- [14] Rakhmat, R. (2016). Menemukan nilai karakter dalam pembelajaran sejarah kebudayaan Islam. *Al-Tadabbur*. <https://doi.org/10.46339/altadabbur.v2i1.49>
- [15] Rasyid, A. (2018). PROBLEMATIKA PEMBELAJARAN SEJARAH KEBUDAYAAN ISLAM DI MADRASAH TSANAWIYAH AL-KHAIRAAT PAKULI KABUPATEN SIGI. *Scolae: Journal of Pedagogy*, 1(1), 13–25. <https://doi.org/10.56488/scolae.v1i1.8>
- [16] Rayanto, Y. H., & Sugianti. (2020). *Penelitian Pengembangan Model ADDIE & R2D2 Teori dan Praktek*. Lembaga Academic & Research Institute.
- [17] Rofik, R. (2015). NILAI PEMBELAJARAN SEJARAH KEBUDAYAAN ISLAM DALAM KURIKULUM MADRASAH. In *Jurnal Pendidikan Agama Islam* (Vol. 12, Issue 1, pp. 15–30). Al-Jamiah Research Centre. <https://doi.org/10.14421/jpai.2015.121-02>
- [18] Rohman, M. (2023). Urgensi Pembelajaran Sejarah Kebudayaan Islam Dalam Pengembangan Karakter Siswa. *Hikmah: Journal of Islamic Studies*. <https://doi.org/10.47466/hikmah.v18i2.211>
- [19] Sayaf, A. M. (2023). Adoption of E-learning systems: An integration of ISSM and constructivism theories in higher education. *Heliyon*, 9(2), e13014. <https://doi.org/10.1016/j.heliyon.2023.e13014>
- [20] Sugiono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (25th ed.). Alfabeta.
- [21] Supriadi, G. (2021). *Statistik Penelitian Pendidikan*. UNY Press.
- [22] Thorita, S. P. (2021). *Pengembangan Buku cerita Bergambar sebagai Media untuk Pembelajaran Penguatan Pendidikan Karakter di Kelas IV SD*. Program Studi Magister Pendidikan Dasar Fakultas Keguruan dan Ilmu Pendidikan Universitas Jambi.
- [23] Topipah, M., Pratiwi, A. S., & Hendrawan, B. (2023). Pengembangan Media Buku Cerita Bergambar Berbasis Pendidikan Lingkungan Hidup Pada Keterampilan Membaca Pemahaman Kelas II SDN Borosole. *Jurnal Pacu Pendidikan Dasar Jurnal PGSD UNU NTB*, 3(1). <https://doi.org/10.22021/pacu.v3i1.400>