The Influence of Using Audio-Visual Learning Media Based on Smart Apps Creator 3 on Students' Learning Outcomes

Ikrima Mailani[1], A Mualif[2], Zulhaini[3], Sopiatun Nahwiyah[4]

[1,2,3,4]Islamic Religious Education Study Program, Faculty of Tarbiyah and Teacher Training,
Islamic University of Kuantan Singingi, Indonesia
for corresponding author: [1]ikrimamailani@gmail.com

Abstract

This study is a continuation of the 2023 research that developed Audio Visual Learning Media based on Smart Apps Creator 3 to address the low learning motivation of students. The initial research showed a significant increase in learning motivation. However, the impact of this media on students' learning outcomes has not yet been evaluated. This follow-up study aims to measure the influence of the media on learning outcomes. The method used is field research with a pre-experimental design, using a one-group pretest-posttest design. Second-semester students of the Islamic Education Study Program were tested before and after using the media to measure changes in their learning outcomes. The collected data were analyzed using SmartPLS 4, and the results showed a significant impact of the use of learning media on students' learning outcomes. This is indicated by a t-Statistic value of 12.549, which is greater than the t-Table value (1.96), and a p-Value of 0.000, which is smaller than 0.05. Additionally, the R Square value of 0.752 indicates that 75.2% of the variance, classified as "Strong," in students' learning outcomes is influenced by the use of learning media, while the remaining 24.8% is influenced by other factors. The N-Gain test results also fall into the high category, with a value of 0.78, indicating a significant improvement in students' learning abilities and knowledge after participating in the learning process.

Keywords: Audio Visual Learning Media, Smart Apps Creator 3, Learning Outcomes.

1. Introduction

Education is a field that continuously evolves alongside technological advancements. Information and communication technology (ICT) has significantly impacted the world of education, including the learning process. The use of technology-based audio-visual learning media has become an effective way to enhance students' learning outcomes, especially in clarifying complex and abstract concepts[1]–[3]. In the context of higher education, particularly in the study of Islamic jurisprudence (fiqh), the use of audio-visual learning media can be an effective means to improve students' understanding of Islamic legal concepts, which are often complex and require deep comprehension.

In today's digital era, information technology has become an integral part of daily life, including in education. The use of technology-based learning media, such as audio-visual learning media, has become a popular choice for many educational institutions to improve students' learning outcomes. Audio-visual learning media has the advantage of presenting information visually and auditorily, thereby helping to clarify abstract and difficult-to-understand concepts that are challenging to grasp through conventional teaching methods.

There is an urgent need to integrate technology into the learning of Islamic jurisprudence. As time progresses, students tend to be more accustomed to

digital technology and have a high interest in interactive and engaging learning. Therefore, this research is expected to contribute to enhancing the effectiveness of fiqh education and to provide new insights into more innovative and adaptive teaching methods.

Previous research by the author developed audio-visual learning media based on Smart Apps Creator 3 as an effort to improve students' learning outcomes in fiqh. Smart Apps Creator 3 is an application development platform that allows users to intuitively create mobile applications without the need for deep programming knowledge. This previous research aimed to create interactive, engaging, and easy-to-use learning media for students in studying concepts within Islamic jurisprudence.

According to Katona [4], the use of technology-based learning media, including audio-visual learning media, has been proven to enhance students' motivation, interest, and understanding of learning materials. In the context of Islamic education, research by Nuaraini[5] shows that the use of technology-based learning media, such as mobile applications, can help students better understand religious concepts in a more interactive way.

However, this initial research was prompted by the problem of low student motivation, which significantly impacted their learning outcomes.

Low learning motivation often leads to a lack of engagement in the learning process, ultimately affecting academic achievement. The research aimed to develop learning media that could increase students' motivation. The results showed that the developed learning media successfully increased learning motivation significantly. The Self-Determination Theory[6] Deci & Ryan supports this finding, suggesting that intrinsic and extrinsic motivation can be enhanced through the provision of a learning environment that supports autonomy, competence, and relatedness. However, despite the increase in motivation, this research has not yet evaluated the direct impact of the use of learning media on students' learning outcomes. Further evaluation is needed to understand the extent to which increased motivation can be translated into better learning outcomes. This is crucial to determine the overall effectiveness of the developed learning media.

Research on the impact of audio-visual learning media based on Smart Apps Creator 3 on students' learning outcomes in fiqh courses is still limited. Therefore, this study aims to refine previous research by focusing on the impact of using such learning media on students' learning outcomes, specifically in the context of fiqh education.

By understanding the importance of integrating technology into the learning process, this research is expected to provide valuable insights into the development of more effective and adaptive teaching methods. Additionally, this research is also expected to provide practical recommendations for educators and educational policymakers in utilizing technology in fiqh education.

2. Research Methods

This study employs an experimental research method using a pre-experimental design. Pre-experimental design refers to an experiment that is not fully controlled, as there are external variables that may also influence the results of the dependent variable. The design used is a one-group pretest-posttest design. In this design, a single group or subject is tested before the intervention (pretest) to determine the initial condition, then given the intervention, and tested again afterward (posttest) to evaluate the subject's understanding [7]. This design is applied to identify "The Impact of Using Audio-Visual Learning Media Based on Smart Apps Creator 3 on Students' Learning Outcomes in Fiqh Courses." Below is the Pretest-Posttest Control Group research design.
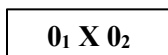
$$\boxed{0_1 \; X \; 0_2}$$

Figure 1. One-group pretest-posttest design

The effect of the treatment is indicated by the difference between (O_1 and O_2) in the sample [8].

Explanation:
a. O_1: Pretest results of the experimental class
b. O_2: Posttest results of the experimental class
c. X: Treatment applied to the sample using Audio-Visual Learning Media Based on Smart Apps Creator 3.

2.1 Research Stages

This research employs an experimental method with a pre-experimental design using a one-group pretest-posttest design. In this design, a single group or subject is tested before the intervention (pretest) to assess the initial condition, then given a treatment and tested again afterward (posttest) to evaluate the impact of the intervention. The research procedure is as follows:
a. The first stage involves the selection of the research sample.
b. The second stage is conducted by administering a pretest to the sample to evaluate the initial condition of the students before they receive treatment using Audio Visual Learning Media Based on Smart Apps Creator 3.
c. The third stage involves providing treatment using Audio Visual Learning Media Based on Smart Apps Creator 3 to the research sample.
d. The final stage is carried out by administering a posttest to the sample to measure the students' understanding after receiving the treatment using Audio Visual Learning Media Based on Smart Apps Creator 3.

2.2 Data Analysis Technique

In this research, the data analysis method used is simple linear regression analysis. Before conducting the hypothesis testing, instrument measurement/testing is carried out first, which includes Validity Testing and Reliability Testing, Goodness of Fit Testing, R Square testing, and F Square testing.

For a more comprehensive data analysis, the Structural Equation Model (SEM) technique is used by calculating the PLS-SEM Algorithm & Bootstrapping. The PLS-SEM Algorithm provides information such as construct validity & reliability (Convergent), discriminant validity, R Square, F Square, SRMR (Model Fit), and Normed Fit Index (NFI). Bootstrapping, on the other hand, is a non-parametric procedure aimed at addressing the issue of non-normal data, especially when the sample size is small. Bootstrapping calculations will yield Patch Coefficients Direct Effect, Specific Indirect Effect, and Total Effect. In this study, only the Direct Effect is used to test the hypothesis [9], [10].

The proposed hypothesis for the effect of using audio-visual media based on Smart Apps Creator 3 on students' learning outcomes in Fiqh course is as

follows:

a. H0: $\beta1 = 0$: There is no significant effect of using audio-visual media based on Smart Apps Creator 3 on students' learning outcomes in the Fiqh course.

b. H1: $\beta1 > 0$: There is a significant effect of using audio-visual media based on Smart Apps Creator 3 on students' learning outcomes in the Fiqh course.

2.3. N-Gain Test

The normalized gain score (N-Gain) indicates the improvement in students' abilities. The N-Gain calculation is used to observe the difference in the improvement of students' learning outcomes when pretests and posttests are conducted. The N-Gain can be calculated using the following formula [11]:

$$\text{N-Gain} = \frac{\text{Post-test Score} - \text{Pre-test Score}}{\text{Maximum Score} - \text{Pre-test Score}}$$

Data obtained from students' answers on the multiple-choice questions in both pre-tests and post-tests will be used to calculate the extent of knowledge improvement in learning outcomes using the N-Gain formula. The following table presents the N-Gain values, which can be seen in Table 1.

Table 1. N-Gain Criteria

Criteria	N-Gain	N-Gain Condition
High	0.71 – 1.00	G > 0.7
Medium	0.33 – 0.66	0.3 < G > 0.7
Low	0.25 - 0.25	G < 0.3

3. Results and Discussions

3.1 Testing the Outer Model (Measurement Model)

a. Convergent Validity Test

To test convergent validity, two common methods are often used: Outer Loading (or Loading Factor) and Average Variance Extracted (AVE). Outer Loading measures how well the indicators represent the latent variables they represent, while AVE assesses the extent to which the indicators within a construct contribute to the construct's variability. Convergent validity criteria are met if the outer loading value is greater than 0.7. However, if the construct validity and reliability values are already highlighted in green, an outer loading value greater than 0.5 can still be tolerated and considered to meet the criteria. Meanwhile, an AVE value greater than 0.5 indicates that the construct meets the convergent validity criteria.

1) Average Variance Extracted (AVE) Test

The following are the results of the Average Variance Extracted (AVE) test: Based on Table 2, it shows that all variables meet the testing criteria, as

the AVE value for the Learning Media Usage variable is 0.771, and the Students' Learning Outcomes variable is 0.831. Both have AVE values greater than 0.5.

Table 2. Average Variance Extracted (Ave) Values

Variable	Average Variance Extracted (AVE)	Description
Learning Media Usage (X)	0.771	Valid
Students' Learning Outcomes (Y)	0.831	Valid

2. Loading Factor

The following are the results of the Loading Factor test:

Table 3. Loading Factor Test Results

Indicator	Loading Factor	Description
X1	0.922	Valid
X2	0.829	Valid
X3	0.880	Valid
Y1	0.964	Valid
Y2	0.856	Valid

Based on the results in Table 3, it can be concluded that each indicator of the Learning Media Usage variable has a value above 0.70. This indicates that all indicators meet the convergent validity criteria, and none need to be removed from the construct. Thus, it can be concluded that the Learning Media Usage and Students' Learning Outcomes variables in this study have good convergent validity, and each indicator can be relied upon to measure the construct.

b. Discriminant Validity Test

The results of the discriminant validity test using the HTMT criterion show a value of 0.221. Since this HTMT value is smaller than the established threshold of 0.90, it can be concluded that the discriminant validity test result meets the requirements.

Table 4. Discriminant Validity Test Results

Variable	X	Y
Learning Media Usage (X)		
Students' Learning Outcomes (Y)	0.221	

c. Reliability Test

To test reliability, two methods are used: Cronbach's alpha and Composite Reliability. The Cronbach's alpha value should be greater than 0.6, and the Composite Reliability value should be greater than 0.7. If the Cronbach's alpha and Composite Reliability values meet the established standards, the measurement construct can be considered reliable and consistent. The results of the reliability test are as follows:

Table 5. Cronbach's Alpha And Composite Reliability Values

Variable	Cronbach's Alpha	Composite Reliability	Description
Learning Media Usage (X)	0.851	0.910	Reliable
Students' Learning Outcomes (Y)	0.815	0.907	Reliable

According to Table 5, it can be concluded that the Composite Reliability of each construct, namely Learning Media Usage (0.910) and Students' Learning Outcomes (0.907), and the Cronbach's alpha results of each construct, namely Learning Media Usage (0.851) and Students' Learning Outcomes (0.815), show that each variable demonstrates an adequate level of reliability, with Cronbach's Alpha and Composite Reliability values greater than 0.7. Each indicator forming the variables also shows accuracy, consistency, and precision in measurement. In other words, the measurement instruments or methods used in this study are reliable and provide consistent and trustworthy results.

3.2 Goodness of Fit Testing

To test the Goodness of Fit, two methods are used: Root Mean Square Residual (RMSR) and Normed Fit Index (NFI). A model is considered fit if the RMSR value is less than 0.1 and the NFI value is close to 1. The following are the results of the Goodness of Fit testing:

Based on Table 6, it can be concluded that the Root Mean Square Residual (RMSR) value being less than 0.1 indicates that the model has met the Fit criteria. Similarly, the Normed Fit Index (NFI) result shows that the model is fit, with a value greater than 0.9 or close to 1 (0.978).

Table 6. Root Mean Square Residual (RMSR) And Normed Fit Index (NFI) Values

Testing	Saturated Model	Estimated Model	Description
Root Mean Square Residual (RMSR)	0.071	0.071	Model Fit
Normed Fit Index (NFI)	0.906	0.906	Model Fit

In other words, the proposed model provides an accurate representation of the observed phenomenon because the model is considered fit.

3.3 Inner Model Testing (Structural Model)

a. R Square (R²) Test

The results of the R Square test are as follows, with the R Square test criteria being:

1) If R Square ≥ 0.25, the model is considered Weak.
2) If R Square ≥ 0.50, the model is

considered Moderate.
3) If R Square ≥ 0.75, the model is considered Strong.

Table 7. R Square Test Results (Determinant Coefficient)

R Square Overview	R-Square	R-Square Adjusted	Remarks
Learning Media Usage (X) → Student Learning Outcomes (Y)	0.752	0.783	Strong

Based on Table 7, it can be concluded that the R Square value for the influence of Learning Media Usage on Student Learning Outcomes is 0.752, with an adjusted R Square value of 0.783. This indicates that 75.2% of the influence on Student Learning Outcomes is due to Learning Media Usage, while 24.8% is influenced by other factors outside the studied variables. Therefore, it can be concluded that the influence of Learning Media Usage on Student Learning Outcomes falls into the Strong category.

c. F Square (F²) Test

The results of the F Square test are as follows, with the F Square test criteria being:

1) If F Square ≥ 0.02, the model is considered Small/Low.
2) If F Square ≥ 0.15, the model is considered Moderate.
3) If F Square ≥ 0.35, the model is considered Strong.

Table 8. F Square Test Results

R Square Overview	F-Square	Remarks
Learning Media Usage (X) → Student Learning Outcomes (Y)	0.445	Moderate

Based on Table 8, it can be concluded that the F Square value for the influence of Learning Media Usage on Student Learning Outcomes is 0.445, indicating that the influence falls into the Moderate category.

3.4 Hypothesis Testing

Hypothesis testing in this study uses Path Coefficient (Direct Effect) to assess direct influence. The testing is conducted with the assistance of the SmartPLS 4 application using the Structural Equation Model (SEM) method with the Bootstrapping measurement model.

The hypothesis testing criteria are as follows:

1) If the p-Value < 0.05, the null hypothesis (H0) can be rejected, indicating a significant influence between variables.

2) If the t-Statistic > t-Table (1.96 at alpha 5%), the null hypothesis (H0) can be

rejected.

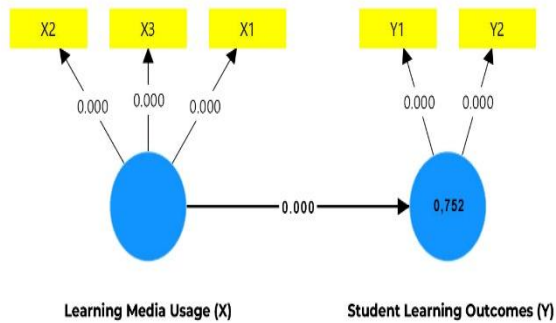The following are the results of the Direct Effect testing.

Figure 2. Structural Equation Model (SEM)

Table 9. Path Coefficient Or Direct Effect Test Results

Research Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistic (O/STDEV)	P-Value	Remarks
Learning Media Usage (X) → Student Learning Outcomes (Y)	0.706	0.727	0.013	12.549	0.000	Significant Influence

Results of Simple Linear Regression Testing

Based on Table 9, it shows the Path Coefficient or Direct Effect, which is indicated by the t-Statistic and p-Value from the direct relationship between variables. For hypothesis testing, the correlation coefficient of Learning Media Usage on Student Learning Outcomes is examined with a t-Statistic value of 12.549 and a p-Value of 0.000. Since the t-Statistic value is greater than the t-Table (1.96) and the p-Value is less than 0.05, Ha is accepted, and H_0 is rejected. Therefore, it can be stated that Learning Media Usage has a significant influence on Student Learning Outcomes.

3.5 N-Gain Score

N-Gain is the difference in students' abilities concerning learning outcomes. This value is obtained from the mastery of the material concepts understood by students after the learning process, as seen from the pretest and posttest scores on multiple-choice questions. Based on this data, the increase in learning outcomes is calculated using the N-Gain formula. The following are the results of the N-Gain test analysis presented in Table 10.

Table 10. N-Gain Test Analysis Results

Criteria	N-Gain	Pretest	Posttest
High	0.78	53.32	89.65

From the table, it can be concluded that the N-Gain test results are in the high category, with a score of 0.78. This indicates a significant increase in the abilities and knowledge of Student Learning Outcomes after the learning process. This improvement reflects the effectiveness of using audiovisual-based learning media with Smart Apps Creator 3.

3.6 Discussion of Research Results

a. Implementation of Audio-Visual Learning Media Based on Smart Apps Creator 3

The implementation of audio-visual learning media based on Smart Apps Creator 3 in the Fiqh course at the Islamic Education Department, Faculty of Tarbiyah and Teacher Training, Universitas Islam Kuantan Singingi consists of three stages: the initial stage, the main stage, and the final stage.

In the initial stage, preparation is done by the lecturer, who prepares the Fiqh material to be taught using the Smart Apps Creator 3 application. The lecturer ensures that all necessary devices, such as computers and projectors, are ready for use. Additionally, the lecturer gives initial instructions to students regarding the use of the application and the learning objectives.

The main stage includes the following steps. The lecturer prepares the Fiqh learning media application to be used as the learning media. Students are then divided into several groups to ensure effective interaction and discussion during the learning process. Each group is provided with a device equipped with the Fiqh learning media. Students are asked to use the application in groups and discuss the Fiqh material presented through the audio-visual media. A representative from each group then presents the results of their discussion in front of the class, while other students are given the opportunity to respond or ask questions. The lecturer reinforces the discussion results and further explains the material discussed. Finally, the lecturer and students together draw conclusions from the day's learning.

The Learning Media Application used includes:

Menu for Hajj and Umrah Materials: On the material page, there are two menus: Hajj and Umrah. Each menu contains sub-materials that can be viewed by users by pressing the play button on each sub-material.

Figure 2. Hajj and Umrah Material Menu Page

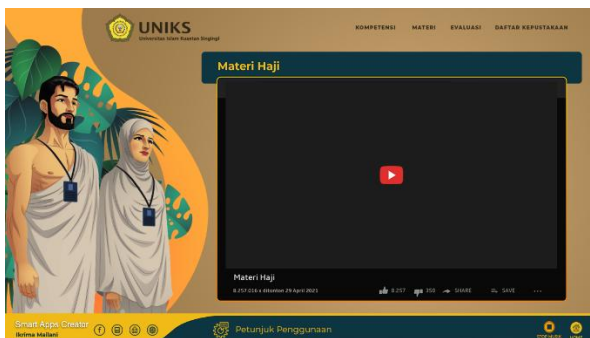Below is an example of a page for each material:

Figure 3. Page that appears when the play button on the sub-material is pressed**.**

Figure 4. The animation video will appear when the red play button in the middle of the page is pressed.

In the final stage, the lecturer invites students to summarize the day's learning outcomes and motivates them to be more active and diligent in their studies. The lecturer then gives an evaluation test (posttest) individually at the end of the learning session. This test is conducted to determine the students' learning outcomes and mastery after the implementation of the audio-visual learning media based on Smart Apps Creator 3.

b. The Influence of Using Audio-Visual Learning Media Based on Smart Apps Creator 3 on Student Learning Outcomes

The research findings indicate a significant influence of using learning media on student learning outcomes in the Fiqh course at the Islamic Religious Education Program, Faculty of Tarbiyah and Teacher Training, Universitas Islam Kuantan Singingi. This influence can be evidenced through various statistical calculations and tests.

Based on the analysis conducted, it was found that the variable of using learning media (X) has a significant impact on student learning outcomes (Y). The testing was performed using the SmartPLS 4 application, where the results showed a t-Statistic value of 12.549, which is greater than the t-Table value of 1.96. Additionally, the p-Value obtained was 0.000, which is smaller than 0.05. Based on these results, the hypothesis stating that the use of learning media influences student learning outcomes can be accepted.

In other words, the better the use of learning media by lecturers, the higher the students' learning outcomes tend to be. Conversely, if the use of learning media decreases, students' learning outcomes will also decline. This research highlights the importance of learning media in the learning process, where the appropriate use of media can positively impact the improvement of student learning outcomes. This emphasizes the importance of selecting and implementing effective learning media to achieve optimal learning outcomes.

Learning media refers to anything that can be used to convey messages or information in order to achieve educational goals. Learning media can take the form of physical aids such as books, projectors, videos, or digital technologies such as e-learning platforms and educational applications. The appropriate use of learning media can make the learning process more engaging and help students better understand the material being taught. [12]

According to Heinich, Molenda, and Russell, as cited by Andi (2016) [13], learning media play a role in enhancing students' motivation to learn. With interactive media, students tend to be more enthusiastic and engaged in the learning process, making it more effective. This aligns with the theory of learning motivation, which states that motivation is one of the key factors in the success of the learning process. The use of engaging media can stimulate students' curiosity and interest, which in turn positively impacts learning outcomes. [14]

Every individual, including students, needs the learning process to develop their knowledge, talents, and interests. This process involves not only individual effort but also requires guidance from instructors and learning media. In the context of education, instructors act as facilitators who not only deliver material but also provide various learning media and resources that students can access.

According to Iwan Falahudin (2014), the role of the instructor is to provide, demonstrate, guide, and motivate students so that they can interact with various available learning resources. [15] This means that the instructor's responsibility is not only

to teach but also to ensure that students have access to different learning media that can help them understand the material. With active interaction between students and learning media, it is expected that students will become more independent in their learning process.

The active role of students in learning is also emphasized by constructivist theory, which states that learning is an active process in which students construct their own knowledge based on experience and interaction with the environment. In this context, learning media serve as an environment that stimulates students to learn. By utilizing learning media effectively, students can explore materials, understand complex concepts, and develop critical thinking skills.

One important aspect of using learning media is its selection. The chosen media must align with students' characteristics, learning objectives, and the material being taught. If the media used is irrelevant or unappealing to students, the learning process may become ineffective.

For example, in courses that require visual understanding, using media such as videos or animations will be more effective than simply reading textbooks. Meanwhile, in courses that require discussion and interaction, using e-learning platforms or applications that enable collaboration among students could be the right choice.

Clark and Mayer (2011), in their book *E-learning and the Science of Instruction*, state that good media simplify complex concepts, making them easier for students to grasp. [16] Therefore, instructors must consider various factors in choosing learning media, such as the complexity of the material, students' characteristics, and the ultimate learning objectives.

This finding aligns with Dewi's [17] research, which states that there is a positive and significant influence of using religious comic learning media on students' learning outcomes, as evidenced by hypothesis testing. The results showed that the F-calculated value was 91.954, which is greater than the F-table value of 4.49, meaning F-calculated > F-table (91.954 > 4.49). Additionally, the significance value of 0.000 indicates that this significance is smaller than the probability of 0.05. Based on this, it can be concluded that the alternative hypothesis (Hα) is accepted and the null hypothesis (H0) is rejected.

Further analysis showed that the correlation value between the religious comic learning media variable and the students' learning outcomes variable was 0.923, indicating a very strong relationship. Additionally, the coefficient of determination value of 0.852 or 85.2% indicates that the use of religious comic learning media contributes 85.2% to the improvement of students' learning outcomes in the Islamic Cultural History subject in grade IV at MI Muhammadiyah Wonorejo Pati. This result underscores the importance of innovative learning media such as religious comics in supporting better learning outcomes in the educational environment.

From Dewi's research, it can be concluded that the use of religious comic learning media has a very significant and positive influence on students' learning outcomes, especially in the Islamic Cultural History subject. This is evidenced by the F-calculated value, which is much greater than the F-table value, and the significance value, which is smaller than 0.05, indicating that the alternative hypothesis is accepted. With a strong correlation value and a contribution of 85.2%, it can be concluded that religious comic learning media is an effective tool in improving students' learning outcomes. Implementing innovative learning media that suits students' needs is crucial for achieving optimal learning outcomes.

These research findings are also consistent with previous research conducted by Putri Handayani [18], where based on the t-test, the research results showed that the use of video learning media had a significant impact on students' learning outcomes. This was evidenced by the t-calculated value of 2.583, which was greater than the t-table value of 1.684, and the significance probability of the 2-tailed test was smaller than 0.05, thus rejecting the null hypothesis (Ho) and accepting the alternative hypothesis (Ha). The significant difference between the average pretest score (46.21) and posttest score (77.56) also reinforces this conclusion.

Moreover, the survey analysis results showed that the majority of students responded very positively to the use of video learning media, with a percentage score of 89% in the very good category. This indicates that students are very interested in and positive about video learning media, which further supports its effectiveness in improving learning outcomes.

It can be concluded that the use of video learning media has a proven significant and positive impact on students' learning outcomes. This is evidenced by the t-test results, which showed that the t-calculated value (2.583) was greater than the t-table value (1.684), as well as the significant increase between pretest and posttest scores. Additionally, students' responses to the use of video learning media were very positive, with 89% of respondents showing strong interest. This indicates that video learning media is not only effective in improving learning outcomes but also well-liked by students.

Devi's [19] research also aligns with this, revealing that learning with strip story media was successful. Before using this media, there were 19 students in

the low-score category,

but after using it, only one student remained in that category. This shows that students who learned with strip story media had better comprehension compared to conventional teaching methods. The simple linear regression test results showed that the t-calculated was greater than the t-table (13.605 > 2.069), meaning there was a significant difference in students' understanding between the pretest and posttest. Therefore, strip story media has a significant impact on students' understanding of the Al-Qur'an Hadith subject in grade III at MI NU Khurriyatul Fikri Kudus.

In conclusion, the use of strip story media in teaching the Al-Qur'an Hadith subject in grade III at MI NU Khurriyatul Fikri Kudus has proven to significantly improve students' comprehension. Before using this media, 19 students were in the low-score category, which was reduced to only one student after learning with strip story media. The simple linear regression test results confirmed that the t-calculated was greater than the t-table (13.605 > 2.069), indicating a significant difference in students' understanding before and after using this media. Strip story media is effective in enhancing students' comprehension compared to conventional methods.

Table 11. N-Gain Criteria Table

Criteria	N-Gain	N-Gain Conditions
High	0.71 – 1.00	G > 0.7
Medium	0.33 – 0.66	0.3 < G > 0.7
Low	0.25 - 25	G < 0.3

Based on the N-Gain test results, which showed a value of 0.78 from Table 10, it can be concluded that the N-Gain test results fall into the high category, with a value of 0.78. This indicates that there is a significant improvement in students' abilities and knowledge after participating in the learning process. This improvement reflects the effectiveness of using audio-visual learning media based on Smart Apps Creator 3.

The use of audio-visual learning media based on Smart Apps Creator 3 (SAC 3) has shown a significant impact on student learning outcomes in the Fiqh course at the Islamic Religious Education Program, Faculty of Tarbiyah and Teacher Training, Universitas Islam Kuantan Singingi. This research examines how this technology influences student learning outcomes and the educational theories that underlie the effectiveness of this learning media.

In its implementation, SAC 3 was applied in the Fiqh course with the aim of improving students' understanding of the material being taught. Traditional teaching methods, which typically rely on direct lectures and textbooks, often struggle to effectively convey abstract concepts in an engaging

way. The use of audio-visual learning media offers a more interactive alternative.

Research findings show that students using SAC 3 media demonstrated significant improvement in their learning outcomes. Evaluations were conducted through pretest and posttest assessments, as well as observations of student participation during learning sessions. Data revealed that the average student scores increased significantly after the implementation of SAC 3 compared to before using this media. This improvement can be attributed to higher engagement and better understanding of the material being taught.

Feedback from students also supports these findings. Many students reported that SAC 3 media made learning more interesting and easier to understand. The interactive and visual features offered by SAC 3 helped them better grasp complex Fiqh concepts. Students also felt more motivated to learn because this media provided a more enjoyable and satisfying learning experience.

However, it is important to note that some students may experience difficulties adapting to new technology or feel that too many multimedia elements can distract from the main material. Therefore, it is crucial for educators to balance the use of this media with traditional teaching methods and provide adequate support for students who need additional assistance.

Overall, the use of audio-visual learning media based on Smart Apps Creator 3 has shown a significant positive impact on student learning outcomes in the Fiqh course at the Islamic Religious Education Program. Learning theories such as multimedia theory, constructivism, and active learning underlie the effectiveness of this media in enhancing student understanding and engagement. By implementing SAC 3, students receive a more interactive and engaging learning experience, which ultimately contributes to improved learning outcomes. The implementation of this media in teaching can serve as an effective model for enhancing the quality of education in the future.

4. Conclusion

The results of this study indicate that the use of Learning Media has a significant effect on Students' Learning Outcomes, with a t-Statistic value of 12.549 and a p-Value of 0.000. The t-Statistic value is greater than the t-Table value (1.96), and the p-Value is less than 0.05. The R Square value is 0.752, which means there is a "Strong" relationship of 75.2%, while 24.8% is influenced by other factors outside the variables studied. Therefore, Ha is accepted, and H0 is rejected, indicating that the use of Learning Media has a significant effect on Students' Learning Outcomes.

The N-Gain test result falls within the high category, with a score of 0.78. This indicates a significant improvement in the abilities and knowledge of Students' Learning Outcomes after participating in the learning process.

Reference

[1] G. Shabiralyani, K. S. Hasan, N. Hamad, and N. Iqbal, "Impact of Visual Aids in Enhancing the Learning Process Case Research: District Dera Ghazi Khan.," *J. Educ. Pract.*, vol. 6, no. 19, pp. 226–233, 2015.

[2] W. Winarto, A. Syahid, and F. Saguni, "Effectiveness the Use of Audio Visual Media in Teaching Islamic Religious Education," *Int. J. Contemp. Islam. Educ.*, vol. 2, no. 1, pp. 81–107, 2020, doi: 10.24239/ijcied.vol2.iss1.14.

[3] N. Karlina and R. Setiyadi, "the Use of Audio-Visual Learning Media in Improving Student Concentration in Energy Materials," *PrimaryEdu - J. Prim. Educ.*, vol. 3, no. 1, p. 17, 2019, doi: 10.22460/pej.v3i1.1229.

[4] B. Katona, J. Venkataragavan, E. Nina, B. Ulrika, and O. Björn, "Use of Visual Learning Media to Increase Student Learning Motivation," *World Psychol.*, vol. 1, no. 3, pp. 89–105, 2023.

[5] Nuraini *et al.*, "The Influence of The Development of Science And Technology on Islamic Education," *Proc. Int. Conf. Islam. Comunity Stud.*, pp. 207–212, 2023, [Online]. Available: https://proceeding.pancabudi.ac.id/index.php/ICIE/article/view/41

[6] R. Ryan and E. L. Deci, *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*. United Kingdom: Guilford Publications, 2018.

[7] M. Sugiyono, *Metode penelitian dan pengembangan = research and development (R&D)*. Bandung: Alfabeta, 2019.

[8] M. Allen, "One-Group Pretest–Posttest Design," in *The SAGE Encyclopedia of Communication Research Methods*, 2017. doi: 10.4135/9781483381411.n388.

[9] J. F. Hair, G. T. M. Jr., Hult, C. M. Ringle, and M. Sarstedt, "A primer on partial least squares structural equations modeling (PLS-SEM). Sage Publications," *J. Tour. Res.*, vol. 6, no. 2, 2021.

[10] D. J. Ketchen, "A Primer on Partial Least Squares Structural Equation Modeling," *Long Range Plann.*, vol. 46, no. 1–2, 2013, doi: 10.1016/j.lrp.2013.01.002.

[11] S. Sesmiyanti, R. Antika, and S. Suharni, "N-Gain Algorithm for Analysis of Basic Reading," 2019, doi: 10.4108/eai.19-7-2019.2289527.

[12] D. Indriana, *Ragam Alat Bantu Media Pengajaran*. 2011.

[13] A. Kristanto, "Media Pembelajaran," *Bintang Sutabaya*, pp. 1–129, 2016.

[14] R. J. Collie and A. J. Martin, "Motivation and Engagement in Learning," in *Oxford Research Encyclopedia of Education*, Oxford University Press, 2019, pp. 1–45. doi: 10.1093/acrefore/9780190264093.013.891.

[15] I. Fahaludin, "Pemanfaatan Media dalam Pembelajaran," *J. Lingk. Widyaiswara* , vol. 1, no. 4, pp. 104–107, 2014, [Online]. Available: https://lmsspada.kemdikbud.go.id/pluginfile.php/98908/mod_resource/content/7/Pemanfaatan Media dalam Pembelajaran.pdf

[16] R. E. M. Ruth C. Clark, *E-learning and the science of instruction : proven guidelines for consumers and designers of multimedia learning / Ruth C. Clark, Richard E. Mayer*. 2016.

[17] R. S. Dewi, "Pengaruh Penggunaan Media Pembelajaran Komik Religi Terhadap Hasil Belajar Siswa Pada Mata Pelajaran Sejarah Kebudayaan Islam Kelas IV MI Muhammadiyah Wonorejo Pati Tahun Ajaran 2020/2021," IAIN Kudus, 2022. [Online]. Available: http://repository.iainkudus.ac.id/id/eprint/6876

[18] P. Handayani, "Pengaruh Penggunaan Media Pembelajaran Video Terhadap Hasil Belajar Peserta Didik Pada Mata Pelajaran IPA Materi Sistem Pernapasan Di MTs Nu Ibtidaul Falah," IAIN Kudus, 2023. [Online]. Available: http://repository.iainkudus.ac.id/id/eprint/8188

[19] S. K. Devi, "Pengaruh Media Pembelajaran Strip Story Terhadap Pemahaman Siswa Pada Mata Pelajaran Al-Qur'an Hadist Kelas III Di MI NU Khurriyatul Fikri," IAIN Kudus, 2022.