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The Influence of Smartboard Digital Media on Student Learning Outcomes in Zakat Fiqh Subjects at MTsN 1 Pasuruan

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Abstract

The low learning outcomes of students, caused by the limited variety of learning methods and media, are a problem that needs to be overcome in the world of education. This study aims to: (1) analyze the influence of the use of Smart Board digital media on improving student learning outcomes in fiqh zakat materials; and (2) comparing learning outcomes between the experimental class and the control class. The research method used is a quantitative approach with a quasi-experimental design of a non-equivalent control group type. Data collection instruments include measurement of cognitive, affective, and psychomotor aspects through pretest and posttest. The results of the analysis showed that the use of Smart Boards significantly improved student learning outcomes. In the cognitive aspect, the average score increased from 49.17 to 76.90 ($p < 0.001$); in affective aspects from 49.59 to 73.66 ($p < 0.001$); and on the psychomotor aspect from 49.56 to 73.79 ($p < 0.001$). Multivariate Variance Analysis (MANOVA) showed significant differences between the experimental and control groups (Wilks' Lambda = 0.524, $F(3, 56) = 16.928$, $p < 0.001$) with a Partial Squared Eta value of 0.476. Based on these findings, it was concluded that the use of Smart Board media contributed to an increase in student learning outcomes by 47.6%. The implications of this study show the importance of integrating interactive digital media in improving learning effectiveness.

Keywords: Digital Media, Smart Board, Learning, Cognitive, Affective, Psychomotor, Zakat

INTRODUCTION

The advancement of technology in the digital age has profoundly changed many facets of society, including education. The integration of technology into learning not only changes the methods of delivering content but also enriches students' learning experiences and streamlines administrative processes in educational institutions (Agus Sulistyo & Ismarti, 2022). he digitalization of educational organizations has made learning more accessible, allowing students to study from any location and at any time, and it supports more inclusive distance learning. Modern classrooms are now equipped with various digital tools that foster interactivity and active student participation in the learning process (Utomo, 2023).

However, the digital transformation in education also presents distinct challenges. Teachers are now required to possess a high level of competence in utilizing educational technologies and to guide students in using technology in a positive and constructive manner. Education is essential for giving pupils the digital literacy abilities they need to meet the demands of the contemporary world (Kuntari, 2023). According to the *2023 Digital Literacy Status in Indonesia* report, the digital literacy level of the Indonesian population is categorized as medium, with an index score of 3.65 on a 1-5 scale. Despite a positive trend in the Indonesian Digital Society Index (IMDI) from 2022 to 2024, difficulties like restricted internet access, uneven infrastructure, and a lack of public awareness continue to hinder the achievement of optimal digital literacy (Sakinah, 2024).

In addition, the low reading literacy among students remains a serious challenge in the educational domain. The decline in reading skills, as reflected in the 2022 PISA data, where Indonesia ranked 69th globally, exerts an immediate influence on students' comprehension of materials and their overall learning outcomes. Poor reading ability makes it difficult for students to understand instructional texts, diminishes learning motivation, and negatively affects academic achievement (Prasastiwi, 2024).

Research conducted by Dewi Firotul Azizah (2021) on the implementation of e-learning in Islamic Religious Education (PAI) at SMK Kesehatan Madani Indonesia Karangploso highlights the necessity of thorough preparation from teachers, including teaching materials, media, methods, applications, schedules, assignments, and evaluations. Although students faced challenges during the COVID-19 pandemic, such as concentration difficulties, burnout, and technical issues (e.g., internet access, electricity, and network

problems), online learning was still successful in improving students' knowledge and skills, even though there were frequent delays in assignment submissions (Azizah, 2021).

Similarly, Mardati's research at Miskyat Al-Anwar Jombang Integrated Islamic Junior High School revealed that digital media-based PAI learning, conducted in accordance with the 2013 Curriculum and utilizing tools such as e-books and Google Classroom, succeeded in increasing students' enthusiasm for learning, improving teacher skills, enhancing learning flexibility, and raising learning outcomes. However, the use of the internet also presented challenges, including the potential misuse of technology by students (Mardati, 2022).

Although numerous studies have explored digital media in education, only a limited number have examined the specific influence of Smart Board technology on students' academic performance, particularly within zakat fiqh instruction. This research emphasizes the application of Smart Boards as interactive learning devices, setting it apart from the more prevalent use of digital tools like e-books, video content, and platforms such as Google Classroom. From a theoretical perspective, this study provides a deeper investigation into zakat fiqh topics and adds to the broader discourse on the role of interactive technologies in enhancing fiqh education.

A Smart Board, also known as an Interactive White Board (IWB), is a large touchscreen that connects to a computer and functions as an interactive display.(İstifçi et al., 2018). This device enables teachers and students to engage actively with educational content by projecting data from a computer or the internet, while also offering features to write, draw, and digitally save or erase notes (Nurkhofifah, 2022). hrough their advanced features, Smart Boards foster a dynamic and enjoyable classroom atmosphere, boosting students' motivation and focus. Additionally, they promote active participation in lessons and help cultivate students' higher-order thinking abilities (Chau et al., 2020).

Another benefit of Smart Boards is that they help teachers save time in preparing instructional materials, enabling more interactive learning. The multimedia features, including audio, images, and videos, displayed on the Smart Board make learning materials more engaging and easier to understand (Almajali, 2016). However, despite these advantages, the use of Smart Boards faces challenges, particularly the high cost of purchase and maintenance, as well as the need for extensive teacher training to effectively utilize the technology. Additionally, limited technicians and maintenance centers for these devices pose

significant obstacles to their widespread use, especially in schools with limited resources (Hussein et al., 2022).

Learning is a process through which individuals develop their ability to think, feel, and act through various experiences (Nurhasnah et al., 2023). As a result of these experiences, individuals improve their thinking and behavior positively. Learning outcomes represent the skills and abilities acquired by students after participating in the learning process, reflecting their efforts to achieve the intended educational goals (Yandi et al., 2023). The better the efforts made in learning, the higher the results that can be achieved, making learning outcomes an essential indicator in evaluating the success of education (Magdalena, Hidayah, et al., 2021).

One of the important theoretical frameworks in education is Bloom's Taxonomy, which divides learning objectives into three primary domains: cognitive, affective, and psychomotor. The cognitive domain involves students' intellectual abilities, progressing from remembering, understanding, and applying to analyzing, evaluating, and creating (Putra et al., 2024). The affective domain pertains to attitudes and values, such as paying attention, responding, appreciating, organizing, and internalizing values as part of one's character (Zainudin & Ubabuddin, 2019). The psychomotor domain, on the other hand, relates to physical skills, ranging from simple movements to complex actions that require creativity (Magdalena, Maemunah, et al., 2021).

In the context of Islam, zakat is an obligatory act aimed at purifying both the soul and wealth (Barkah et al., 2020). he term zakat itself means purification, blessings, growth, and goodness. Zakat ensures that wealth is blessed and protected from problems. It also fosters social concern, strengthens community ties, and enhances one's faith and piety (Bintania et al., 2023).

Evidence of the issue can be seen in the learning outcomes of zakat fiqh material in grades VIII G and VIII J. Data revealed that 29 out of 53 students scored below the Minimum Completeness Criteria (KKM). Interviews with fiqh teachers also indicated that the decline in learning outcomes was influenced by several factors, including low student interest, ineffective use of learning media, and a lack of supportive learning environments.

Based on these realities, it is crucial to implement strategic efforts to optimize the use of digital technology and select appropriate learning media to enhance reading literacy, digital literacy, and overall student learning outcomes. Such efforts are vital in ensuring that students

are equipped with the necessary skills to navigate the increasingly digital world and to maximize their academic performance.

This study aims to comprehensively describe and analyze several key aspects. Firstly, it seeks to examine the design and implementation of the use of Smart Boards in teaching zakat fiqh, a subject central to Islamic education. Secondly, it aims to analyze the impact of Smart Board-based digital media on student learning outcomes, specifically evaluating how this interactive technology influences students' understanding and retention of zakat fiqh material. Thirdly, the study will compare the learning outcomes between students taught using Smart Board digital media and those taught through conventional methods, providing a detailed analysis of the differences in academic performance across these two teaching approaches.

By exploring these aspects, the study intends to contribute valuable insights into the role of Smart Boards in enhancing educational outcomes and offers practical recommendations for integrating advanced digital tools into the curriculum to improve both teaching effectiveness and student engagement. Through this research, the potential of Smart Boards as a tool to foster deeper learning and more interactive educational environments will be further understood and explored.

METHODS

This research employs a quantitative approach, which involves measuring, calculating, and analyzing numerical data at each stage of the research process, from data collection to drawing conclusions (Veronica et al., 2022). The method used is an experimental study with a quasi-experimental design, which aims to test causal relationships through treatment in the experimental group (Yusuf, 2017). While randomization was not employed in the selection of research subjects, the validity of the results remains strong. The design applied is the Nonequivalent Control Group Design, which is similar to the pretest-posttest control group design but without random subject selection (Priadana & Sunarsi, 2021).

Participants in this study consisted of grade 8 students, totaling 350 students. The sample was selected using purposive sampling, focusing on a specific group of students with low learning outcomes, consisting of 29 students who formed the experimental class. Additionally, a control group of 31 students was selected. Data collection techniques included interviews, observations, questionnaires, and documentation (Amelia et al., 2023)

Primary data were gathered through questionnaires and direct observations, while secondary data were collected from supplementary sources. The primary data sources included related documents used to supplement references in the study(Soesana et al., 2023)

Data analysis involved several stages, including validity tests, reliability tests, normality tests, homogeneity tests, paired sample t-tests, and Multivariate Analysis of Variance (MANOVA) tests (Sihotang, 2023). This research was conducted at MTsN 1 Pasuruan, located at Jalan Bader No.1, Kalirejo, Bangil District, Pasuruan Regency, East Java Province. The research period spanned 3 months, from February 2 to April 20, 2025. The selection of this location was based on the availability of supporting facilities suitable for the study.

RESULTS

Experimental Treatment Design of the Use of Smart Board Digital Media in Zakat Fiqh Learning

In this experiment, the learning of Fiqh Zakat was designed by utilizing Smart Board digital media as the main tool. The selection of Smart Boards is based on its ability to be interactive and attract students' attention, ith the aim of enhancing the overall effectiveness of the learning experience. The teacher delivers the material through an interactive PowerPoint presentation displayed on the Smart Board screen. This PowerPoint is designed systematically, containing explanations of zakat, illustrations, diagrams, and animations that support students' understanding of important concepts in Fiqh, especially regarding the types of zakat, the conditions of zakat, and its calculation.

In addition, the Wordwall application is used as a formative evaluation medium packaged in the form of educational games, accessed directly through the Smart Board. The app is tailored to the material that has been studied, allowing students to actively participate in a variety of interactive games such as multiple-choice quizzes, matching terms, and word randomization. The game aims to strengthen memory and understanding of the concept of zakat, with students interacting directly with the Smart Board screen, such as touching the correct answer or moving an object to the appropriate place.

During the experimental treatment, a communicative and participatory learning approach was applied, with the researcher acting as a facilitator who guided the students in exploring the material in depth. Students are given the opportunity to actively engage in technology-based activities that enrich their learning experience. The combination of

PowerPoint and Wordwall integrated through Smart Boards not only helps teachers in delivering material effectively, but also creates a fun learning atmosphere, motivates students to focus more, and increases their enthusiasm for the lessons. Thus, the design of this treatment is designed to support the improvement of student learning outcomes in various domains, including cognitive, affective, and psychomotor.

Pretest and posttest data of learning outcomes (cognitive, affective and psychomotor)

Table 1. Pre test and post test data on cognitive learning outcomes

Control				Experimen		
No.	Name	Pretest	postest	Name	Pretest	Posttest
1	MH	44	58	NAN	56	84
2	IP	40	58	MRH	52	80
3	MAV	36	48	MMA	60	88
4	HLZ	44	60	RCR	48	76
5	SAP	48	56	AWP	60	92
6	SAF	44	58	AU	56	84
7	PNF	52	62	MJ	40	68
8	KO	44	62	AS	44	72
9	MZA	52	64	MBF	52	88
10	MKA	44	68	NWA	48	76
11	MFR	56	80	RA	56	88
12	AAW	48	64	MFI	44	80
13	MHA	52	84	LAPF	56	76
14	AAS	56	72	MSH	52	84
15	MIA	48	80	MNU	44	72
16	SNA	56	80	MMR	56	80
17	RFJ	36	78	MPK	56	80
18	EAI	44	64	MAF	52	78
19	NZ	48	60	MCP	42	68
20	AMF	40	60	INL	48	88
21	NP	52	64	FRS	44	76
22	AAS	56	64	SA	40	72
23	RFM	48	68	FFA	56	76
24	AFA	56	72	KNA	36	60

25	AK	48	60	NAR	44	60
26	LAM	52	72	AJ	48	72
27	HNI	44	56	MSA	40	68
28	NZA	56	72	MRF	52	76
29	MAP	52	77	TAF	44	68
30	SNK	42	52			
31	MS	48	60			
Sum		1486	2033		1426	2230

Referring to the table above, it can be inferred that the data from the pretest of this cock class has a number of 1486 and the number of postest is 2033 with. Then the experimental class pretest has a number of 1426 and the post test with junmlah 2230. The following is also descriptive data.

Table 2. Data describing preetes and postest cognitive learning outcomes

	N	Range	Min	Max	Mean	Std. Deviation
Pretes kontrol	31	20	36	56	47.94	5.899
Postest kontrol	31	36	48	84	65.58	9.069
Pretest experimen	29	24	36	60	49.17	6.666
Postest experimen	29	32	60	92	76.90	8.239

From the table above, it is observed that the control class pretest data shows a minimum score of 36, a maximum score of 56, an average (mean) of 47.94, and a standard deviation of 5.899. Meanwhile, for the posttest data in the control class, the minimum score recorded was 48, the maximum was 84, with a mean of 68.58 and a standard deviation of 9.069.

Meanwhile, in the experimental class, the minimum pretest score was 36, the maximum score was 60, the average pretest score was 49.17, and the standard pretest deviation was 6.666. For the experimental class posttest data, the minimum score was 60, the maximum score was 92, the average posttest score was 76.90, and the standard deviation was 8.239

Table 3. Pre test and post-test data on affective learning outcomes

Control				Experimen		
No.	Name	Pretest	postest	Name	Pretest	Posttest
1	MH	42	58	NAN	50	78
2	IP	52	66	MRH	48	70

3	MAV	42	64	MMA	52	80
4	HLZ	42	58	RCR	50	72
5	SAP	48	62	AWP	54	78
6	SAF	52	66	AU	48	78
7	PNF	48	68	MJ	52	82
8	KO	52	70	AS	48	72
9	MZA	52	66	MBF	50	76
10	MKA	50	68	NWA	54	80
11	MFR	56	66	RA	50	70
12	AAW	52	78	MFI	52	80
13	MHA	48	72	LAPF	42	76
14	AAS	50	72	MSH	52	70
15	MIA	50	62	MNU	48	74
16	SNA	56	78	MMR	48	78
17	RFJ	52	68	MPK	48	62
18	EAI	48	64	MAF	52	66
19	NZ	50	72	MCP	52	68
20	AMF	50	78	INL	48	70
21	NP	48	70	FRS	50	66
22	AAS	52	64	SA	50	68
23	RFM	50	74	FFA	48	80
24	AFA	54	70	KNA	52	78
25	AK	48	80	NAR	48	72
26	LAM	52	76	AJ	50	78
27	HNI	48	70	MSA	44	62
28	NZA	52	66	MRF	46	78
29	MAP	50	78	TAF	52	74
30	SNK	44	62			
31	MS	54	66			
Sum		1544	2132		1438	2136

Referring to the table above, it can be inferred that the data from the pretest of this cock class has a number of 1544 and a postest number of 2132. Then the experimental class pretest has a number of 1438 and the post test with junmlah 2136. The following is also descriptive data

Table 4 Data describing preetes and postest affective learning outcomes

	N	Range	Min	Max	Mean	Std. Deviation
Pretest control	31	14	42	56	49.81	3.628
Postest control	31	22	58	80	68.77	5.971
Pretest experimen	29	12	42	54	49.59	2.745
Postest experimen	29	20	62	82	73.66	5.633

Referring to the table above, the pretest results for the control class indicate a minimum score of 36, a maximum of 56, an average score of 49.81, and a standard deviation of 3.628. For the control class posttest, the scores ranged from a minimum of 58 to a maximum of 80, with a mean of 68.77 and a standard deviation of 5.971.

In comparison, the experimental class pretest data shows a minimum score of 42, a maximum of 54, an average of 49.59, and a standard deviation of 2.745. For the posttest in the experimental group, the minimum score recorded was 62, the maximum was 82, with an average score of 73.66 and a standard deviation of 5.633.

Table 6 Pre test and post test data on psychomotor learning outcomes

Control				Experimen		
No.	Name	Pretest	postest	Name	Pretest	Posttest
1	MH	47.5	60	NAN	57.5	77.5
2	IP	52.5	75	MRH	50	77.5
3	MAV	55	77.5	MMA	52.5	80
4	HLZ	42.5	57.5	RCR	55	85
5	SAP	37.5	55	AWP	45	70
6	SAF	40	55	AU	42.5	72.5
7	PNF	42.5	62.5	MJ	37.5	70
8	KO	45	65	AS	40	65
9	MZA	47.5	60	MBF	42.5	70
10	MKA	42.5	70	NWA	45	65
11	MFR	37.5	65	RA	47.5	67.5
12	AAW	40	67.5	MFI	42.5	67.5
13	MHA	42.5	67.5	LAPF	37.5	62.5
14	AAS	45	62.5	MSH	50	75
15	MIA	50	75	MNU	52.5	80
16	SNA	52.5	80	MMR	47.5	72.5

17	RFJ	50	72.5	MPK	50	75
18	EAI	52.5	75	MAF	52.5	80
19	NZ	55	80	MCP	55	77.5
20	AMF	57.5	70	INL	57.5	85
21	NP	52.5	70	FRS	52.5	72.5
22	AAS	55	72.5	SA	55	75
23	RFM	45	67.5	FFA	45	77.5
24	AFA	55	77.5	KNA	55	62.5
25	AK	45	62.5	NAR	60	87.5
26	LAM	55	65	AJ	47.5	70
27	HNI	57.5	67.5	MSA	50	72.5
28	NZA	47.5	70	MRF	55	75
29	MAP	50	72.5	TAF	57.5	72.5
30	SNK	52.5	77.5			
31	MS	47.5	67.5			
Sum		1497	2122		1437	2140

Referring to the table above, it can be inferred that the data from the pretest of this cock class has a number of 1497 and the number of postest is 2122 with. Then the experimental class pretest has a total of 1437 and the post test with junmlah 2140. The following is also descriptive data

Table 6 Description data of preetes and postest affective learning outcomes

	N	Range	Min	Max	Mean	Std. Deviation
Pretes control	31	20.0	37.5	57.5	48.36	5.8945
Postest control	31	25.0	55.0	80.0	68.46	7.0023
Pretest experimen	29	22.5	37.5	60.0	49.56	6.2346
Postest experimen	29	25.0	62.5	87.5	73.79	6.4649

Based on the table presented above, the control class pretest results reveal a minimum score of 37.5, a maximum of 57.5, an average (mean) of 48.36, and a standard deviation of 5.8945. In the posttest results for the control class, the minimum score recorded was 55.0, the maximum was 80.0, with a mean of 68.46 and a standard deviation of 7.0023.

Meanwhile, in the experimental class, the pretest data shows a minimum score of 37.5, a maximum of 60.0, an average score of 49.56, and a standard deviation of 6.2346. As for

the posttest results in the experimental class, scores ranged from 62.5 to 87.5, with an average of 73.79 and a standard deviation of 6.4649.

Data Analysis of Cognitive, Affective and Psychomotor Learning Outcomes

1. Validity Test

   If Rxy ≥ rtable, then the conclusion is that the questionnaire item is valid. If Rxy ≤ rtable, then the conclusion is that the questionnaire item is invalid. Judging from the significance of 5% in the distribution of table values. As for the question item, a score of 0.361 was obtained. So it can be concluded that if the rtable > 0.361, then it is said to be valid. If the rtable < 0.361 then it is said to be invalid.

Table 7. Interpretation of the validity test of test questions

Aspects	No	row	Interpretasi
Cognitive	1	0,466	Valid
	2	0,464	Valid
	3	0,521	Valid
	4	0,437	Valid
	5	0,630	Valid
	6	0,854	Valid
	7	0,439	Valid
	8	0,650	Valid
	9	0,611	Valid
	10	0,707	Valid
	11	0,611	Valid
	12	0,825	Valid
	13	0,786	Valid
	14	0,646	Valid
	15	0,615	Valid
	16	0,248	Invalid
	17	0,506	Valid
	18	0,465	Valid
	19	0,157	Invalid
	20	0,796	Valid
	21	0,287	Invalid
	22	0,675	Valid
	23	0,763	Valid
	24	0,675	Valid
	25	0,202	Invalid
	26	0,154	Invalid
	27	0,675	Valid
	28	0,763	Valid
	29	0,675	Valid
	30	0,702	Valid

eferring to the table above, it can be concluded that there are 25 valid and suitable questions to use.

Table 8 Interpretation of the questionnaire validity test

Aspects	No	r_{ruang}	Interpretasi
Affective	1	0,403	Valid
	2	0,892	Valid
	3	0,634	Valid
	4	0,519	Valid
	5	0,467	Valid
	6	0,825	Valid
	7	0,693	Valid
	8	0,484	Valid
	9	0,372	Valid
	10	0,441	Valid

Based on the above, it can be concluded that there are 10 valid questionnaires that are worth using.

Table 9. Interpretation of the validity test of the observation sheet

Aspek	No	r_{ruang}	Interpretasi
Psychomotorics	1	0,719	Valid
	2	0,428	Valid
	3	0,509	Valid
	4	0,622	Valid
	5	0,606	Valid
	6	0,530	Valid
	7	0,405	Valid
	8	0,812	Valid
	9	0,717	Valid
	10	0,760	Valid

Based on the table above, it can be concluded that there are 10 observation sheets that are valid and suitable for use

2. Reliability Test

"Reliable" refers to something that can be trusted. An instrument is deemed reliable if it consistently performs well enough to serve as a dependable tool for data collection, indicating that the instrument is of high quality. This reliability test is said to be valid if the value of a > 0.6 but if the value of a < 0.6 then it can be said to be invalid

Table 10 Reliability Test Results Test Questions

Reliability Statistic	
Cronbach Alpha	N of Item
,958	25

Table 11 Results of the Questionnaire Reliability Test

Reliability Statistic	
Cronbach Alpha	N of Item
,752	10

Table 12 Results of the Reliability Test of the Observation Sheet

Reliability Statistic	
Cronbach Alpha	N of Item
,809	10

Based on the table above, it can be concluded that test questions, questionnaires and observation sheets have reliable results

3. Normality Test

The normality test is used to determine whether the existing data is normally distributed or not normally distributed. The data is declared normal if the data has sig. > 0.05 if the data has sig. < 0.05, the data is declared not to be normally distributed. To test this normality test, the researcher used the sapphiro wilk test

Table 11. Control and experimental class normality test

Saphiro Wilk			
	Statistic	df	sig
Gain Cognitive	.969	60	.087
Gain Affective	.963	60	.068
Gain Psiko	.961	60	.053

Based on the table above, it is known that the Shapiro-Wilk significance value for all variables has a value of >0.05, which is 0.087 for gain_kognitif, 0.068 for gain_afektif, and 0.053 for gain_psiko, respectively. Thus, it can be concluded that the data from the three variables are normally distributed

4. Homogeneity Test

The homogeneity test was conducted to determine whether the two sample groups had different variances or the same variance. The criteria for this test are as follows: if the

significance value is greater than 0.05, the data variance is considered homogeneous. However, if the significance value is less than 0.05, it indicates that the data variance is heterogeneous.

Table 12 Levene Test of Equality of Error Variances

		Levene statistif	df1	df2	Sig
Cognitive	Based on mean	3.674	1	58	.060
	Based on median	2.559	1	58	.115
	Based median with adjusted df	2.559	1	49.850	.115
	Based on trimmed mean	3.117	1	58	.080
Affective	Based on mean	.005	1	58	.946
	Based on median	.003	1	58	.960
	Based median with adjusted df	.003	1	57.994	.960
	Based on trimmed mean	.002	1	58	.987
Psiko	Based on mean	.917	1	58	.370
	Based on median	.650	1	58	.423
	Based median with adjusted df	.650	1	57.522	.423
	Based on trimmed mean	.976	1	58	.327

Referring to the table above, it can be concluded that Levene Test value on all variables has a value of >0.05, which is 0.060 for gain_kognitif, 0.946 for gain_afektif, and 0.370 for gain_psiko, respectively. Thus, it can be concluded that the data from the three variables have a homogeneous variance

Table 13 Data Homogenitas Co Varian

Box's Test of Equality of Covarians Matrcies	
Box's M	7.729
F	1.216
df1	6
df2	24065.849
sig	.295

Referring to the table above, it can be concluded that the value of the Box's Test Of Equallty Of Covariance Matrices on Box's M is 7.729 and the value of sig. 0.295 >

0.05 so that it can be concluded that the data covariance is homogeneous. It is known that the variance and covariance homogeneity tests are eligible, so the Multivariate Analysis of Variance test can be continued

5. Paired Sampel T test

A paired sample t-test is a statistical method used to compare two related data sets, often to assess changes or differences before and after a treatment within the same group. This test determines whether there is a statistically significant difference between the mean values observed at different points in time (e.g., pre-test versus post-test) within the same group. If the p-value is less than 0.05, the difference is considered significant, while if the p-value is greater than 0.05, the difference is deemed not significant. Below are the results of the paired test for the experimental group:

Table 14 Experimental Class Paired Sample Data

	Mean	Std Deviation	df	Significane	
				one-side p	Two side p
Pair 1(pretest cognitive-postest cognitive)	-27.724	5.091	28	<.001	<.001
Pair 2 (pretest Affective-postest Affective)	-24.069	5.616	28	<.001	<.001
Pair 3 (pretest psiko-postest psiko)	-24.224	5.223	28	<.001	<.001

The analysis revealed notable differences between the pretest and posttest across the three measured aspects: cognitive, affective, and psychomotor. In the cognitive aspect, there was a significant increase with an average difference of -27.724, standard deviation of 5.091, and a significance value of $p < 0.001$. In the affective aspect, the mean difference was -24.069 with a standard deviation of 5.618 and a significance value of $p < 0.001$, which also showed a significant increase. Likewise in the psychomotor aspect, with an average difference of -24.224, standard deviation of 5.223, and a significance value of $p < 0.001$. Overall, the treatment of using Smart Boards has been proven to be effective in improving participants' abilities in these three aspects.

6. Multivariate Analysis of Variance

The Multivariate Analysis of Variance (MANOVA) test is employed to assess the differences in means between two or more groups across multiple dependent variables simultaneously. This test is applied to evaluate cognitive, affective, and psychomotor

learning outcomes. In this study, the researcher utilized Wilks' Lambda. A p-value of less than 0.05 indicates a significant difference between the experimental and control groups, while a p-value greater than 0.05 suggests no significant difference between the two groups.

Table 15 Data manova wilks lambda

Variable	Value	F	df	error df	sig	Partial era squared
Groups (control & experiments)	0,524	16, 928	3	56	<.0.01	0.476

Referring to the table above, Wilks' Lambda value is 0.524 with a value of F(3, 56) = 16.928, and a significance value of $p < 0.001$. Since the significance value is less than 0.05, it can be concluded that there is a significant difference in the combination of dependent variables between the groups tested. The magnitude of the group's influence on the combination of dependent variables is indicated by the Partial Eta Squared value of 0.476, Thus, the results of the analysis show that the group exerts a significant influence on the combination of dependent variables.

DISCUSSION

Experimental Treatment Design of the Use of Smart Board Digital Media in the Subject of Zakat Fiqh

This study integrates Smart Board digital media as the primary tool in Fiqh education, specifically for zakat topics, with the aim of enhancing the quality of learning. Observations during the treatment phase revealed that the use of Smart Boards, combined with interactive PowerPoint and Wordwall applications, had a notably positive impact. Students demonstrated increased enthusiasm, active participation, and greater focus on learning compared to traditional methods.

The visualization of material through images, diagrams, and animations on the Smart Board helped students grasp abstract concepts in zakat fiqh more concretely, accelerating their understanding and improving retention. Formative evaluations via Wordwall not only assessed comprehension but also fostered a fun and competitive learning environment, encouraging students to be more engaged without feeling overwhelmed.

In addition to cognitive improvements, observations indicated that students' affective attitudes developed as well, including an increased interest in Fiqh lessons, enhanced discipline during class, and a more positive outlook toward the use of technology. From a psychomotor perspective, students also became more adept at interacting with technological tools, particularly in operating the Smart Board. Therefore, the application of Smart Board media has proven to be an effective method in supporting improvements across various facets of student learning outcomes.

Smart Boards offer several advantages that facilitate interactive and collaborative learning. The large display allows for better material visualization, thereby increasing both physical and visual student engagement. With the ability to store and share content, Smart Boards save valuable teaching time and provide easier access to materials, including in distance learning environments. The incorporation of multimedia elements such as audio and video makes the presentation of material more engaging and effective (Indrawathi et al., 2021).

However, there are several drawbacks that must be considered. These include the high purchase and maintenance costs associated with Smart Boards. The limited availability of maintenance centers, as well as the need for intensive teacher training to effectively operate these devices, present additional challenges. Furthermore, the scarcity of qualified technicians for the necessary maintenance may impede the optimal use of Smart Boards (Augustina & Dina, 2024).

The Influence of Smart Board Digital Media on Student Learning Outcomes in Cognitive, Affective and Psychomotor Aspects

This research highlights the effectiveness of using Smart Board digital media in grade VIII at MTsN 1 Pasuruan, showing a positive impact on student learning outcomes in the cognitive, affective, and psychomotor domains. In the experimental class, the enhancement in learning outcomes was notably greater compared to the control class.

Specifically, in the cognitive domain, the average score increased from 49.17 to 76.90 following the implementation of Smart Board media. In the affective domain, the average score rose from 49.59 to 73.66, reflecting an increase in students' interest and positive attitudes toward learning. The psychomotor aspect saw an increase in the average score from 49.56 to 73.79, indicating improved skills in using digital media.

The results of the Paired Sample T-Test confirmed these findings, with a significance value of $p < 0.001$ in all three domains, indicating that the differences in results before and after the treatment were statistically significant. Thus, the use of Smart Boards in Fiqh education has proven effective in enhancing students' understanding, positive attitudes, and skills, and can serve as a viable and innovative alternative for learning activities.

Differences in Cognitive, Affective and Psychomotor Learning Outcomes in Experimental and Control Classes

This study involved two sample groups from grade VIII: the experimental class, which was exposed to Smart Board digital media, and the control class, which did not receive the treatment. A total of 60 students participated. To measure the impact of Smart Board media on the improvement of cognitive, affective, and psychomotor learning outcomes, the Multivariate Analysis of Variance (MANOVA) test was employed.

The analysis revealed a significant difference between the two groups. A Wilks' Lambda value of 0.524 with a significance level of $p < 0.001$ demonstrates that the use of Smart Boards influences all three aspects of learning outcomes. The effect size, represented by the Partial Eta Squared value of 0.476, suggests that 47.6% of the variation in student learning outcomes is attributable to the use of digital media.

In the cognitive domain, the F-value was 35.385 with a contribution of 37.9%, indicating a large effect. In the affective domain, the F-value was 12.600 with a contribution of 17.8%, which also qualifies as a large effect. In the psychomotor domain, the F-value was 5.938 with a contribution of 9.3%, categorized as a medium effect.

Overall, the study confirms that Smart Board media is effective in improving student learning outcomes, particularly in the cognitive domain, followed by the affective and psychomotor domains. Therefore, it represents a valuable innovation for Fiqh education in schools.

Ahmad Basran's study on the impact of digital literacy on learning outcomes at SMPN Karumpa No. 25 found that the majority of students exhibited digital literacy in the "High" category (57%). Learning outcomes were predominantly in the "High" category (39%), although there was variation with the "Low" (19%) and "Very Low" (8%) categories. The study demonstrated that digital literacy positively influenced student learning outcomes, though the effect was classified as "Moderate" (Basran, 2023).

In contrast, this study on the application of Smart Boards in Fiqh education shows a more pronounced effect. The improvements in student learning outcomes across the cognitive, affective, and psychomotor domains were more evident, with a p-value of less than 0.001 indicating a statistically significant difference between pretest and posttest results following the use of Smart Boards. In contrast to Basran's research, which indicates a "Moderate" effect of digital literacy, this study demonstrates that interactive technologies like Smart Boards have a more substantial and immediate influence on student learning outcomes.

This study has several limitations. First, the duration of the study was limited, preventing an evaluation of the long-term effects of using Smart Boards in Fiqh education. Second, the sample was confined to a single school and only two classes, which restricts the ability to apply the findings to a wider population. Finally, external factors, such as students' socioeconomic background and their prior experience with technology, were not controlled, which may have influenced the results. Future research should address these variables for more accurate and generalized outcomes.

CONCLUSION

The application of Smart Board digital media has proven to be significantly effective in enhancing student learning outcomes in the subject of Zakat Fiqh. Through the integration of Smart Board-assisted learning, interactive PowerPoint presentations, and Wordwall, a more engaging, active, and focused classroom environment is created. This media significantly enhances students' cognitive, affective, and psychomotor development. Visualizing the material via the Smart Board helps clarify complex concepts, while Wordwall reinforces students' understanding in a fun and interactive manner. As such, Smart Board has proven to be an innovative and effective tool in supporting educational quality enhancement.

Moreover, the use of Smart Board digital media has demonstrated a substantial increase in student learning outcomes in experimental classes. Significant improvements were observed in all three learning domains: cognitive, affective, and psychomotor. In the cognitive domain, students showed a notable increase in understanding, with pretest and posttest average scores rising from 49.17 to 76.90, accompanied by a statistical significance of $p < 0.001$. In the affective domain, students displayed increased interest, positive attitudes,

and participation, with scores improving from 49.59 to 73.66, also with $p < 0.001$. Likewise, the psychomotor domain revealed improvements in students' skills in technology interaction, with scores increasing from 49.56 to 73.79, and statistical significance of $p < 0.001$. These results underscore the significant impact of Smart Boards on all three aspects of student learning, confirming their effectiveness as a learning medium in Fiqh education.

Furthermore, the MANOVA test highlighted a significant difference between the experimental and control groups, with Wilks' Lambda values of 0.524 and $p < 0.001$. A Partial Eta Squared value of 0.476 indicates that 47.6% of the variation in learning outcomes is attributable to the use of Smart Boards. In the cognitive aspect, the value of $F = 35.385$ ($p < 0.001$) and Partial Eta Squared 0.379 revealed a strong impact on improving understanding. The affective aspect demonstrated a significant influence with $F = 12.600$ ($p < 0.001$) and Partial Eta Squared 0.178, showing substantial improvements in student motivation and attitudes. In the psychomotor aspect, the influence was moderate with $F = 5.938$ ($p = 0.018$) and Partial Eta Squared 0.093, indicating improvements in students' technical skills. These results further validate the positive and significant impact of Smart Board usage on all learning domains.

This research makes a valuable contribution to the field by highlighting the role of digital technology, specifically Smart Boards, in religious education, particularly in Fiqh. The study demonstrates how interactive technology can enhance cognitive understanding, foster positive learning attitudes, and develop students' technological skills. However, there are certain limitations to the study, such as the short duration of the research along with the small sample size, which could influence the ability to generalize the results. For future research, it is recommended to involve a larger and more diverse sample, as well as control for external variables such as students' socioeconomic background and their prior experience with technology. Future studies could further deepen our understanding of the effectiveness of digital technologies in enhancing Fiqh education and improving learning outcomes.

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