

The Effect of Digital Project-Based Learning and Self-Confidence on Students' Arabic Learning Achievement

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Cite this article:

Nurjanna., M. Yusuf T., Rappe., & Haniah. (2025). The Effect of Digital Project-Based Learning and Self-Confidence on Students' Arabic Learning Achievement. *Arabiyatuna: Jurnal Bahasa Arab*, 9(2), 725-740. doi: 10.29240/jba.v9i2.14657

Received: 24-08-2025

Revised: 11-11-2025

Accepted: 24-11-2025

Abstract

This study examines the correlation between digital project-based learning and self-confidence on Arabic language learning achievement. Employing a 2×2 treatment-by-level research design, the implementation of digital project-based learning demonstrated a positive effect on student learning outcomes. This can be seen in the score differences between classes that applied digital project-based learning and those that used project-based learning without digital assistance. The average score of the experimental class was 60.31, while the control class achieved an average score of 35.69. This finding was supported by the results of a two-way ANOVA, which showed a significance value of $0.000 < 0.05$, indicating a significant difference in Arabic learning achievement between students taught using digital project-based learning and those taught without digital assistance. Similarly, self-confidence also showed a positive effect on Arabic learning achievement. Students with high self-confidence achieved higher scores than those with low self-confidence, with average scores of 63.85 and 32.15, respectively. This result was further supported by the two-way ANOVA test, which yielded a significance value of $0.000 < 0.05$, indicating a significant difference in Arabic learning achievement between students with high and low self-confidence.

Keywords: Arabic Learning Achievement; Digital Project-Based Learning; Self-Confidence.

Introduction

Arabic language learning in madrasahs faces a range of challenges, one of the most prominent being the need to create effective and engaging learning experiences for students. The unique characteristics of the Arabic language, including its use of the *Hijaiyah* script, often make the subject feel unfamiliar, especially for students transitioning from elementary school. As a result, Arabic learning achievement among eighth-grade students at MTsN 1 Makassar City has been less than optimal. Issues like this require strategic solutions that strengthen both instrumental and integrative motivation. The perception that Arabic is inherently difficult¹ must be addressed by fostering students' motivation so they can achieve the intended learning objectives.²

To respond to these challenges, it is necessary to adopt adaptive, solution-oriented learning approaches. One such approach is the use of digital project-based learning, a model that empowers teachers to manage classroom instruction through structured projects. Digital project-based learning is an innovative, student-centered method that positions teachers as motivators and facilitators while granting students the autonomy to construct knowledge through active engagement.³

The application of digital project-based learning has shown positive outcomes: students tend to enjoy the learning process, benefit from technology that makes materials easier to understand, work flexibly from various locations, and develop stronger critical-thinking skills.⁴ Through project-based learning (PBL), students engage in diverse tasks and responsibilities in an integrated manner to achieve shared goals.⁵ Research by Haddade et al. confirms that strategy implementation in technology-based learning significantly supports future madrasah development.⁶ Project-based learning encourages student initiative, independence, collaboration, and responsibility in problem-solving

¹ Noza Aflisia, Ahmad E Q Nurwadjah, and Andewi Suhartini, "Nilai Teologi Islam: Telaah Materi Ajar Bahasa Arab Madrasah Tsanawiyah," *An Nabighoh* 23, no. 1 (June 16, 2021): 17–32, <https://doi.org/10.32332/an-nabighoh.v23i1.2993>.

² Muhammad Syaifullah and Nailul Izzah, "Kajian Teoritis Pengembangan Bahan Ajar Bahasa Arab," *Arabiyatuna: Jurnal Bahasa Arab* 3, no. 1 (May 2019): 127, <https://doi.org/10.29240/jba.v3i1.764>.

³ Trianto Ibnu Badar al Tabany, *Mendesain Model Pembelajaran Inovatif, Progresif, Dan Kontekstual* (Jakarta: Kencana, 2017).h.41-42

⁴ Ahmad dkk Rosyidi, "Digital Project Based Learning Dalam Pembelajaran English for Aviation," in *Prosiding Seminar Nasional SIPMA*, 2022.

⁵ Ahmad Teguh Purwanto, "Penerapan Metode Proyek Dalam Pembelajaran PAI," *Jurnal Ilmiah Pedagogi* 12, no. 2 (2019): 2–3, <https://doi.org/https://doi.org/10.63889/pedagogi.v12i2.1>.

⁶ Hasyim Haddade et al., "Technology-Based Learning Strategies in Digital Madrasah Program," *Cypriot Journal of Educational Sciences* 18, no. 1 (January 2023): 55–70, <https://doi.org/10.18844/cjes.v18i1.8179>.

tasks, making grammar instruction more dynamic and contextually meaningful.⁷ Similarly, research by Pedro et al. found that PBL was effective in fostering experiential learning, collaboration, and analytical thinking. Implemented with approximately 130 students each academic year, PBL contributed to an increase in final grade averages from 4.81 (pre-intervention) to 5.62 in the most recent two academic years, with consistent improvement in ongoing assessment scores. Indicators of student satisfaction remained high, even amid pandemic-related disruptions. Instructors also expressed positive perceptions, noting greater student involvement without losing classroom control. These results underscore the effectiveness of integrating PBL and SRS tools to strengthen motivation and academic performance in higher education.⁸

In addition to instructional models, self-confidence plays a crucial role in the learning process.⁹ Self-confidence reflects an individual's mental attitude in assessing themselves and their surroundings, leading to belief in their abilities, capacities, and decision-making.¹⁰ It serves as the foundation for self-motivation and is essential for academic success.¹¹ In the context of Arabic language learning, student confidence significantly affects learning outcomes.

However, research that examines the combined effect of digital project-based learning and self-confidence on Arabic language learning is still limited. This gap is significant because both the learning model and internal learner factors, such as self-confidence, are key determinants of Arabic proficiency. Arabic is taught in madrasahs as a second language to build foundational competence in four integrated skills: listening, speaking, reading, and writing. Therefore, students' confidence in learning is fundamental to the attainment of learning goals. Higher self-confidence tends to lead to higher achievement, whereas low confidence often results in lower outcomes.¹²

Given these conditions, it is important to conduct an in-depth investigation into how digital project-based learning interacts with self-confidence to affect Arabic learning achievement among eighth-grade students at MTsN 1 Makassar

⁷ Masnun Masnun, Ma'rifatul Munjiah, and Renti Yasmar, "Project-Based Learning: Principles, Characteristics, and Application in Teaching Grammar Rules," *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 2 (September 30, 2024): 597–616, <https://doi.org/10.29240/jba.v8i2.10880>.

⁸ Zahara M de Pedro et al., "Active Learning in Environmental Engineering: Combining Interactive Platforms and Project-Based Approaches to Boost Engagement and Academic Performance," *Education for Chemical Engineers* 53 (2025): 161–70, <https://doi.org/https://doi.org/10.1016/j.ece.2025.09.002>.

⁹ Noza Aflisia and Aan Hasanah, "Character Education Model in Arabic Learning at Madrasah Aliyah," *Jurnal Pendidikan Bahasa Arab* 6, no. 2 (December 28, 2020): 241–56, <https://doi.org/10.14421/almahara.2020.062-05>.

¹⁰ Hendra Widjaja, *Berani Tampil Beda Dan Percaya Diri* (Yogyakarta: Araska, 2016).h.57

¹¹ Intan Vandini, "Peran Kepercayaan Diri Terhadap Prestasi Belajar Matematika Siswa," *Formatif: Jurnal Ilmiah Pendidikan MIPA* 5, no. 3 (February 2016), <https://doi.org/10.30998/formatif.v5i3.646>.

¹² Nur Isyanto et al., "Korelasi Self-Confident Dengan Hasil Belajar," *Ta'limi | Journal of Arabic Education and Arabic Studies* 3, no. 1 (January 2024): 51–58, <https://doi.org/10.53038/tlmi.v3i1.91>.

City. This study aims to identify potential synergies among resources, learner characteristics, and pedagogical strategies that support achievement in Arabic. The learning model applied in this research is expected to contribute to the broader development of digital project-based learning in Arabic instruction at MTsN 1 Makassar City.

In The Great Dictionary of the Indonesian Language (KBBI), achievement is defined as the result attained from something that has been done or worked on.¹³ According to Khasan, as cited in Djamarah, achievement refers to what has been produced, an outcome achieved through effort.¹⁴ Learning itself is understood as a relatively permanent change in behavior resulting from experience.¹⁵ Learning achievement, therefore, is the outcome students acquire after participating in instruction and can be evaluated through various indicators, including knowledge, skills, and attitudes. Syah defines academic achievement as the level of success demonstrated by students in mastering school subjects, expressed through scores obtained on tests.¹⁶

The research instrument used in this study was a test that underwent validity and reliability analysis. Validity testing using SPSS confirmed that all items were valid. A reliability test conducted through Cronbach's alpha yielded a coefficient of 0.93, indicating that the instrument possessed strong reliability.

Table 1. Reliability Statistics

Cronbach's Alpha	N of Items
0.932	35

This research employed a quasi-experimental quantitative design. The research subjects were selected using multiple random sampling techniques. Two classes consisting of 40 students each were drawn from a population of 498. Both sampled classes underwent categorization based on test results, indicating students' self-confidence levels. This categorization followed Nitko's guideline: when the number of students ranges from 20 to 40, the highest and lowest 25–33% of scores should be selected.¹⁷ In this study, each group comprised 40 students. Following Nitko's recommendation, the researchers used a 33% distribution:

- 33% (13 students): high category
- 34% (14 students): middle category
- 33% (13 students): low category

¹³ Muhammad Ali, *Kamus Bahasa Indonesia Modern* (Jakarta: Pustaka Insan, n.d.).h.323

¹⁴ Syaiful Bahri Djamarah, *Strategi Belajar Mengajar* (Jakarta: Rineka Cipta, 2002).h.167

¹⁵ Siti Nurhasanah and ; A.Sobandi, "Minat Belajar Sebagai Determinan Hasil Belajar Siswa," *Jurnal Pendidikan Manajemen Perkantoran* 1, no. 1 (2016): 129.

¹⁶ Muhibin Syah, *Psikologi Pendidikan Dengan Pendekatan Baru* (Bandung: Ramaja Rosdakarya, 2010).h.149

¹⁷ Nitko Anthony J and Susan M Brookhart, *Educational Assessment Of Students* (Harlow: Pearson, 2005).h.256

Because the focus of the study was on the high and low self-confidence groups, students in the middle category received the same instruction, but their data were excluded from analysis.

The research design used in this study was a 2×2 treatment-by-level design. The treatment applied was a learning model. The experiment was conducted in two classes: an experimental class and a control class. The experimental class, consisting of students with both high and low self-confidence, received digital project-based learning, while the control class, also consisting of students with high and low self-confidence, received project-based learning without digital assistance. The research design is presented in the following matrix:¹⁸

Table 2. Matrix of Research Design

A	B	
	B1	B2
A1	(A1B1)	(A1B2)
A2	(A2B1)	(A2B2)

This matrix consists of four cells, where Matrix A represents the learning model and Matrix B represents self-confidence. The descriptions of each cell are as follows:

(A1B1): Digital project-based learning with high self-confidence

(A1B2): Digital project-based learning with low self-confidence

(A2B1): Project-based learning without digital assistance with high self-confidence

(A2B2): Project-based learning without digital assistance with low self-confidence

The instruments used in this study included questionnaires, Arabic learning achievement tests, participant observation, and documentation notes. The data were analyzed using a two-way ANOVA, followed by Tukey's post hoc test. This research aims to examine the effects of digital project-based learning and self-confidence on students' Arabic language learning achievement.

Findings and Discussion

The research was conducted over three weeks, during which three teaching and learning sessions were carried out for both the experimental class (Class VIII Tahfidz) and the control class (Class VIII.1). Meetings with the experimental class were held every Monday, while the control class met every Wednesday.

In line with the research design, each class received different treatments in every meeting. The experimental class was taught using digital project-based learning, whereas the control class was taught using project-based learning without digital assistance.

After three meetings, both classes were given a digital-based summative test to measure students' Arabic learning achievement. This section presents the correlation between the empirical findings from hypothesis testing and the theoretical concepts underlying this research.

¹⁸ Suharsimi Arikunto, "Prosedur Penelitian Suatu Pendekatan Praktik," 2019.

Digital project-based learning served as an effective alternative model to support the attainment of Arabic language learning objectives. This model emphasized the development of students' creative abilities by allowing them to complete learning projects while constructing their understanding of the material. The integration of digital devices enhanced academic performance through interactive and enjoyable learning experiences that matched students' familiarity with smartphones, tablets, laptops, or PCs.

The steps of the digital project-based learning model were as follows.

Phase 1 (Identifying Essential Questions): (1) The researchers presented slides related to professions, (2) Students observed the PowerPoint presentation, (3) Students responded to the researchers' questions regarding the Arabic text displayed, and (4) Students and the teacher engaged in a question-and-answer session to translate and analyze grammatical structures.

Phase 2 (Designing the Product Plan): (5) Students formed groups of 5–6 members, (6) Students accessed the worksheet (LKPD) via tablet, read the instructions, and asked for clarification when needed, (7) The researchers provided guidance on the worksheet activities, and (8) Students discussed their project plan, including task distribution and technical procedures.

Phase 3 (Developing the Work Schedule): (9) Students and the teacher agreed on a timeline for project completion.

Phase 4 (Monitoring Activity and Project Development): (10) The researchers monitored students' engagement, reviewed their progress, and assisted when needed, and (11) Students worked on their projects and consulted the researchers regarding challenges.

Phase 5 (Assessing the Outcomes): (12) The researchers reviewed and evaluated the completed projects, and (13) Students discussed and presented the feasibility and quality of their work.

Phase 6 (Evaluating the Learning Experience): (14) The researchers provided feedback on the presentations, (15) Each group presented its final product using digital devices, (16) Other groups and the researchers gave feedback, and (17) The group with the most well-organized project received a star-point reward.

The researchers explored the implementation of digital project-based learning as an effort to improve Arabic learning achievement among eighth-grade students at MTsN 1 Makassar. The findings indicate that this learning model significantly improved students' Arabic learning outcomes. Its success lies in learning activities that emphasize active participation, autonomy, and student responsibility in project completion. Such processes strengthen intrinsic motivation as students engage with meaningful and relevant learning projects. Integrating information and communication technology also cultivates 21st-century skills such as creativity, collaboration, communication, and problem-solving.

Based on the analysis, students who were actively involved in digital project-based learning demonstrated substantially higher Arabic achievement than those who learned without digital assistance. This confirms that digital project-based learning plays a significant role in improving students' Arabic learning outcomes. The description and analysis of the data are presented below.

Descriptive Statistical Analysis

Descriptive analysis was carried out to examine the characteristics and correlations among variables. The research data are summarized in the following table.

Table 3. Research Data Description

	N	Min	Max	Mean	Std. Deviation
Digital project-based learning	26	18	96	60.31	23.397
Project-based learning without digital assistance	26	12	64	35.69	14.173
High self-confidence	26	32	96	63.85	19.116
Low self-confidence	26	12	60	32.15	13.254
Digital project-based learning with high self-confidence	13	68	96	80.62	8.140
Digital project-based learning with low self-confidence	13	18	60	40.00	13.441
Project-based learning without digital assistance with high self-confidence	13	32	64	47.08	9.260
Project-based learning without digital assistance with low self-confidence	13	12	36	24.31	7.204

These results show clear variations between students who experienced digital project-based learning and those who learned without digital assistance, as well as between students with high and low self-confidence. This suggests a meaningful correlation between the learning model applied and students' self-confidence levels.

Hypothesis Prerequisite Test

First, Data Normality Test

In this research, the Shapiro–Wilk test in IBM SPSS version 26 was used to examine data normality. Eight data groups were tested, consisting of four main groups and four sub-groups. The results are shown in Table 4.

Table 4. Normality Test

Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Statistic	df	Sig.	Statistic	df	Sig.

Standardized Residual for Achievement	0.058	52	0.200*	0.991	52	0.961
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Based on the table, the data are normally distributed. The Shapiro–Wilk significance value serves as the basis for determining normal distribution, where a value greater than 0.05 indicates that the residuals are normally distributed. The significance value obtained was 0.961, exceeding 0.05. Therefore, the data in this group meet the assumption of normality.

Second, Data Homogeneity Test

This study used the Levene test to examine the homogeneity of variances. A significance value greater than 0.05 indicates homogeneous groups, while a value below 0.05 indicates non-homogeneous groups.¹⁹

Table 5. Levene's Test of Equality of Error Variances^{a,b}

		Levene Statistic	df1	df2	Sig.
Achievement	Based on Mean	2.538	3	48	.068
	Based on Median	2.514	3	48	.070
	Based on Median and adjusted df	2.514	3	41.558	.072
	Based on trimmed mean	2.555	3	48	.066

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: Achievement

b. Design: Intercept + DPjBL + SelfConfidence + DPjBL * SelfConfidence

The results show a significance level of $\alpha = 0.068$, greater than 0.05. Thus, it can be concluded that the variances come from populations with equal or homogeneous variance. Since both normality and homogeneity assumptions were met, the two-way ANOVA hypothesis test could be appropriately conducted..

Hypothesis Testing

The statistical analysis used in this study was the Test of Between-Subjects Effects, which determines whether there are significant differences in the dependent variable between the compared groups. The ANOVA results are presented in Table 6.

Table 6. Tests of Between-Subjects Effects

Dependent Variable: Achievement

¹⁹ I Wayan Widana, *Uji Persyaratan Analisis* (Jawa Timur: Klinik Media, 2020). h.17

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	21969.231 ^a	3	7323.077	76.170	0.000
Intercept	119808.000	1	119808.000	1246.169	0.000
DPjBL	7876.923	1	7876.923	81.931	0.000
SelfConfidence	13057.231	1	13057.231	135.813	0.000
DPjBL * SelfConfidence	1035.077	1	1035.077	10.766	0.002
Error	4614.769	48	96.141		
Total	146392.000	52			
Corrected Total	26584.000	51			

Based on Table 6, three important findings emerged: (1) the comparison between the group using digital project-based learning and the group using non-digital project-based learning showed a significance value of $\alpha = 0.000$, which is less than 0.05. This indicates a significant difference in students' Arabic learning achievement between the two learning models for eighth-grade students at MTsN 1 Makassar City; (2) The comparison between students with high and low self-confidence also produced a significance value of $\alpha = 0.000$, which is less than 0.05. This means that self-confidence significantly affects students' Arabic learning achievement; and (3) The two-way ANOVA showed a significant interaction between the learning model and self-confidence ($\alpha = 0.002 < 0.05$). This indicates that digital project-based learning and self-confidence together contribute to differences in Arabic learning achievement among eighth-grade students at MTsN 1 Makassar City.

Tukey Test

The Tukey test was conducted after the ANOVA results indicated significant differences between the groups. The hypothesis testing was performed at a 5% significance level with the following criteria: (1) If the significance value between A1B1 and A2B1 is $< 5\%$ or 0.05, then H_0 is rejected and H_a is accepted. This means that among students with high self-confidence, those who learned through the application of digital project-based learning achieved higher Arabic learning outcomes than those who learned through project-based learning without digital assistance in Grade VIII at MTsN 1 Makassar City; and (2) If the significance value between A1B2 and A2B2 is $< 5\%$ or 0.05, then H_0 is rejected and H_a is accepted. This indicates that for students with low self-confidence, the group taught using digital project-based learning achieved higher Arabic learning outcomes than those taught using project-based learning without digital assistance in Grade VIII at MTsN 1 Makassar City.

The results of the Tukey test in IBM SPSS 26 are presented in Table 7.

Table 7. Multiple Comparisons

Dependent Variable: Achievement						
Tukey HSD						
(I) Post-Hoc_Test	(J) Post-Hoc_Test	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
A1B1	A1B2	40.62*	3.846	.000	30.38	50.85
	A2B1	33.54*	3.846	.000	23.30	43.77
	A2B2	56.31*	3.846	.000	46.07	66.54
A1B2	A1B1	-40.62*	3.846	.000	-50.85	-30.38
	A2B1	-7.08	3.846	.268	-17.31	3.16
	A2B2	15.69*	3.846	.001	5.46	25.93
A2B1	A1B1	-33.54*	3.846	.000	-43.77	-23.30
	A1B2	7.08	3.846	.268	-3.16	17.31
	A2B2	22.77*	3.846	.000	12.53	33.00
A2B2	A1B1	-56.31*	3.846	.000	-66.54	-46.07
	A1B2	-15.69*	3.846	.001	-25.93	-5.46
	A2B1	-22.77*	3.846	.000	-33.00	-12.53

Based on Table 7, a significance value of $0.000 < 0.05$ was obtained, indicating that H_0 was rejected and H_a was accepted. Thus, for students with high self-confidence, those taught using digital project-based learning achieved higher Arabic learning outcomes than those taught using project-based learning without digital assistance in Grade VIII at MTsN 1 Makassar City. Similarly, in the low self-confidence group, a significance value of $0.001 < 0.05$ was obtained, indicating that H_0 was rejected and H_a was accepted. Therefore, students with low self-confidence who learned through digital project-based learning also achieved higher outcomes than those taught using project-based learning without digital assistance.

The hypothesis testing results showed that digital project-based learning had a positive effect on learning achievement. This is evident from the difference in mean scores between the experimental class (60.31) and the control class (35.69). These results demonstrate a significant difference, with the experimental group outperforming the control group. This finding is further supported by the two-way ANOVA results in Table 5, which show a significance value of $0.000 < 0.05$. Thus, H_a was accepted, and H_0 was rejected, confirming the first hypothesis that students taught using digital project-based learning achieved better Arabic learning outcomes than those taught without digital assistance.

The findings of this study indicate that digital project-based learning encourages greater student engagement and creates a more enjoyable classroom environment. Students take responsibility for producing projects, supported by

learning tools aligned with their needs. Through project completion, students engage in knowledge construction. This aligns with Yamin's view that knowledge is the result of a continuous cognitive construction process, reorganized each time new understanding emerges.²⁰ Knowledge cannot simply be transferred from one individual to another; instead, learners construct it independently.²¹ Digital project-based learning can effectively support Arabic language instruction. A study by Naifah et al., "*The Development of a Digital Module on the Concept and Application of the Kurikulum Merdeka in Madrasas Based on Problem-Based Learning*," found that digital modules significantly improved learning outcomes. The average score increased from 56.89 (pretest) to 87.41 (posttest), with a paired-sample t-test showing statistical significance, $t(26) = -169.56$, $p < .001$. These findings underscore the pedagogical strength and practical effectiveness of digital modules in supporting Arabic language learning within the *Merdeka* Curriculum framework.²²

Self-confidence is an essential aspect of personality development. Individuals with strong self-confidence tend to believe in their abilities, remain unaffected by negative external pressure, and behave optimistically, tolerantly, and responsibly.²³

The hypothesis test examining the effect of self-confidence on learning achievement also showed a positive effect. The average score of students with high self-confidence was 63.85, whereas students with low self-confidence scored 32.15. This significant difference is supported by the two-way ANOVA results in Table 6, which reported a significance value of $0.000 < 0.05$, indicating acceptance of H_a and rejection of H_0 . Therefore, the second hypothesis, stating that there is a significant difference in Arabic learning achievement between students with high self-confidence and those with low self-confidence, was proven true. This conclusion aligns with the study conducted by Ratnasari entitled "*The Correlation Between Self-Confidence and Mathematical Problem-Solving Ability of Fourth-Grade Students at SDN Sawangan 02*." The findings indicated a positive and significant correlation between self-confidence and mathematical problem-solving ability, with $r = 0.552$ and a significance value of $0.001 < 0.05$. This suggests that higher self-confidence is associated with stronger problem-solving skills. The coefficient of

²⁰ Ahmad Suriadi and Dkk, *Teori Konstruktivisme Dalam Pembelajaran PAI Di Madrasah; Teori Dan Implementasinya* (Sukabumi: CV Jejak, 2022).h.12

²¹ Margareth E Bell Gredler, *Buku Petunjuk Belajar Dan Membelajarkan* (Jakarta: Rajawali Pers, 2000).h.257

²² Naifah et al., "The Development of a Digital Module on the Concept and Application of the Kurikulum Merdeka in Madrasas Based on Problem-Based Learning," *Arabiyatuna: Jurnal Bahasa Arab* 9, no. 1 (May 2025): 393–412, <https://doi.org/10.29240/jba.v9i1.12260>.

²³ Dwi Kartikawati, "PELATIHAN PIDATO UNTUK MENINGKATKAN KEPERCAYAAN DIRI SISWA SEKOLAH DASAR DI JAKARTA," *Dinamisia: Jurnal Pengabdian Kepada Masyarakat* 4, no. 1 (April 2020): 624, <https://doi.org/10.31849/dinamisia.v4i1.3695>.

determination was 30.47%, indicating that the remaining 69.53% of the variance was affected by other factors.²⁴

Descriptive analysis of the Arabic language scores of students in the high self-confidence group who learned through digital project-based learning showed an average score of 80.62. Meanwhile, the group that learned through project-based learning without digital assistance obtained an average score of 40. These results indicate a significant difference, where students taught through digital project-based learning achieved significantly higher scores than those taught through project-based learning without digital assistance. The Tukey test results, as shown in Table 7, produced a significance value of $0.000 < 0.05$, thereby rejecting H_0 and accepting H_a . Thus, it can be concluded that among students with high self-confidence, those who learned through digital project-based learning achieved higher Arabic learning outcomes than those who learned through project-based learning without digital assistance in Grade VIII of MTsN 1 Makassar City. This finding aligns with Mulyati and Evendi, who explained that digital learning serves as a tool that helps students develop their skills more efficiently, enhance critical thinking, and improve problem-solving through collaboration and communication, thereby providing broader opportunities for student growth.²⁵

Similarly, descriptive analysis of the Arabic language scores of students in the low self-confidence group who learned through digital project-based learning showed an average score of 47.8. Meanwhile, those who learned through project-based learning without digital assistance obtained an average score of 24.31. These data also demonstrate a significant difference, with students taught through digital project-based learning achieving higher scores than those taught through project-based learning without digital assistance. The Tukey test results, as presented in Table 7, yielded a significance value of $0.000 < 0.05$, leading to the rejection of H_0 and acceptance of H_a . Therefore, it can be concluded that among students with low self-confidence, those who learned through digital project-based learning achieved higher Arabic learning outcomes than those who learned through project-based learning without digital assistance in Grade VIII of MTsN 1 Makassar City. These results reinforce the view that the implementation of engaging learning strategies aligned with student characteristics can effectively optimize the achievement of learning objectives.

Conclusion

²⁴ Rita Tri Ratnasari, "Hubungan Antara Self Confidence Dan Kemampuan Pemecahan Masalah Matematika Siswa Kelas IV SDN Sawangan 02" (Universitas Negeri Syarif Hidayatullah Jakarta, 2022).

²⁵ Sri Mulyati and Hanif Evendi, "Pembelajaran Matematika Melalui Media Game Quizizz Untuk Meningkatkan Hasil Belajar Matematika SMP," *GAUSS: Jurnal Pendidikan Matematika* 3, no. 1 (May 2020): 64–73, <https://doi.org/10.30656/gauss.v3i1.2127>.

Based on the results of the research and the discussions presented, this study concludes that the implementation of digital project-based learning had a significant effect on student Arabic learning achievement. Students who learned through digital project-based learning demonstrated higher academic performance than those who participated in project-based learning without digital assistance. The findings also highlight the importance of self-confidence in the learning process. Students with high self-confidence consistently achieved better academic outcomes than those with low self-confidence, regardless of the learning model applied. Furthermore, there is a significant interaction effect between digital project-based learning and students' self-confidence. Digital project-based learning had a stronger positive effect on students with high self-confidence compared to those with low self-confidence in supporting Arabic learning achievement among eighth-grade students at MTsN 1 Makassar City. In the high self-confidence group, students who learned through digital project-based learning achieved higher Arabic language learning outcomes than those who learned through project-based learning without digital assistance. Similarly, in the low self-confidence group, students who received digital project-based learning also performed better than those who experienced project-based learning without digital support.

Overall, digital project-based learning can serve as an effective alternative for improving students' academic achievement. This instructional model can be considered a primary pedagogical option, as it aligns with the learning characteristics of today's students who are highly engaged with digital technologies. Future research may further explore digital project-based learning and self-confidence in relation to other variables that contribute to the enhancement of learning quality.

References

- Aflisia, Noza, and Aan Hasanah. "Character Education Model in Arabic Learning at Madrasah Aliyah." *Jurnal Pendidikan Bahasa Arab* 6, no. 2 (December 28, 2020): 241–56. <https://doi.org/10.14421/almahara.2020.062-05>.
- Aflisia, Noza, Ahmad E Q Nurwadjah, and Andewi Suhartini. "Nilai Teologi Islam: Telaah Materi Ajar Bahasa Arab Madrasah Tsanawiyah." *An Nabighoh* 23, no. 1 (June 16, 2021): 17–32. <https://doi.org/10.32332/an-nabighoh.v23i1.2993>.
- Ali, Muhammad. *Kamus Bahasa Indonesia Modrn*. Jakarta: Pustaka Insan, n.d.
- Anthony J, Nitko, and Susan M Brookhart. *Educational Assesment Of Students*. Harlow: Pearson, 2005.
- Arikunto, Suharsimi. "Prosedur Penelitian Suatu Pendekatan Praktik," 2019.
- Djamarah, Syaiful Bahri. *Strategi Belajar Mengajar*. Jakarta: Rineka Cipta, 2002.
- Gredler, Margareth E Bell. *Buku Petunjuk Belajar Dan Membelajarkan*. Jakarta: Rajawali Pers, 2000.

- Haddade, Hasyim, Askar Nur, Muhammad Khalifah Mustami, and Andi Achruh. "Technology-Based Learning Strategies in Digital Madrasah Program." *Cypriot Journal of Educational Sciences* 18, no. 1 (January 2023): 55–70. <https://doi.org/10.18844/cjes.v18i1.8179>.
- Ibnu Badar al Tabany, Trianto. *Mendesain Model Pembelajaran Inovatif, Progresif, Dan Kontekstual*. Jakarta: Kencana, 2017.
- Isyanto, Nur, Parhan Parhan, Subaiki Ikhwan, and Rifda Hanief. "Korelasi Self-Confident Dengan Hasil Belajar." *Ta'limi | Journal of Arabic Education and Arabic Studies* 3, no. 1 (January 2024): 51–58. <https://doi.org/10.53038/tlmi.v3i1.91>.
- Kartikawati, Dwi. "PELATIHAN PIDATO UNTUK MENINGKATKAN KEPERCAYAAN DIRI SISWA SEKOLAH DASAR DI JAKARTA." *Dinamisia : Jurnal Pengabdian Kepada Masyarakat* 4, no. 1 (April 2020): 624. <https://doi.org/10.31849/dinamisia.v4i1.3695>.
- Masnun, Masnun, Ma'rifatul Munjah, and Renti Yasmar. "Project-Based Learning: Principles, Characteristics, and Application in Teaching Grammar Rules." *Arabiyatuna: Jurnal Bahasa Arab* 8, no. 2 (September 30, 2024): 597–616. <https://doi.org/10.29240/jba.v8i2.10880>.
- Mulyati, Sri, and Hanif Evendi. "Pembelajaran Matematika Melalui Media Game Quizizz Untuk Meningkatkan Hasil Belajar Matematika SMP." *GAUSS: Jurnal Pendidikan Matematika* 3, no. 1 (May 2020): 64–73. <https://doi.org/10.30656/gauss.v3i1.2127>.
- Naifah, Ahmad Zuhudin, Anisa Alfurochmatin, Winda Nur Lathifah, and Mudrofin. "The Development of a Digital Module on the Concept and Application of the Kurikulum Merdeka in Madrasahs Based on Problem-Based Learning." *Arabiyatuna: Jurnal Bahasa Arab* 9, no. 1 (May 2025): 393–412. <https://doi.org/10.29240/jba.v9i1.12260>.
- Nurhasanah, Siti, and ; A.Sobandi. "Minat Belajar Sebagai Determinan Hasil Belajar Siswa." *Jurnal Pendidikan Manajemen Perkantoran* 1, no. 1 (2016): 129.
- Pedro, Zahara M de, Ariadna Alvarez-Montero, Jose A Casas, and Macarena Munoz. "Active Learning in Environmental Engineering: Combining Interactive Platforms and Project-Based Approaches to Boost Engagement and Academic Performance." *Education for Chemical Engineers* 53 (2025): 161–70. <https://doi.org/https://doi.org/10.1016/j.ece.2025.09.002>.
- Purwanto, Ahmad Teguh. "Penerapan Metode Proyek Dalam Pembelajaran PAI." *Jurnal Ilmiah Pedagogy* 12, no. 2 (2019): 2–3. <https://doi.org/https://doi.org/10.63889/pedagogy.v12i2.1>.
- Ratnasari, Rita Tri. "Hubungan Antara Self Confidence Dan Kemampuan Pemecahan Masalah Matematika Siswa Kelas IV SDN Sawangan 02." Universitas Negeri Syarif Hidayatullah Jakarta, 2022.
- Rosyidi, Ahmad dkk. "Digital Project Based Learning Dalam Pembelajaran English for Aviation." In *Prosiding Seminar Nasional SIPMA*, 2022.
- Suriadi, Ahmad, and Dkk. *Teori Konstruktivisme Dalam Pembelajaran PAI Di*

Madrasah; Teori Dan Implementasinya. Sukabumi: CV Jejak, 2022.

Syah, Muhibin. *Psikologi Pendidikan Dengan Pendekatan Baru*. Bandung: Ramaja Rosdakarya, 2010.

Syaifullah, Muhammad, and Nailul Izzah. "Kajian Teoritis Pengembangan Bahan Ajar Bahasa Arab." *Arabiyatuna : Jurnal Bahasa Arab* 3, no. 1 (May 2019): 127. <https://doi.org/10.29240/jba.v3i1.764>.

Vandini, Intan. "Peran Kepercayaan Diri Terhadap Prestasi Belajar Matematika Siswa." *Formatif: Jurnal Ilmiah Pendidikan MIPA* 5, no. 3 (February 2016). <https://doi.org/10.30998/formatif.v5i3.646>.

Widana, I Wayan. *Uji Persyaratan Analisis*. Jawa Timur: Klinik Media, 2020.

Widjaja, Hendra. *Berani Tampil Beda Dan Percaya Diri*. Yogyakarta: Araska, 2016.

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