

Sorogan as Islamic Personalized Pedagogy: Its Effect on Nahwu Learning Outcomes at Pondok Pesantren KH.

Syamsuddin Durisawo Ponorogo

(Sorogan sebagai Pedagogi Personalisasi Islam: Pengaruhnya terhadap Hasil Belajar Nahwu di Pondok Pesantren KH. Syamsuddin Durisawo Ponorogo)

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ABSTRACT

Purpose: This study examines the effect of Personalized Sorogan-Based Learning (PPS) on santri Nahwu learning outcomes at Pondok Pesantren KH. Syamsuddin Durisawo Ponorogo and positions sorogan as a measurable form of Islamic personalized pedagogy. **Method:** The study employed a quantitative correlational design with an ex post facto orientation. PPS was measured using a 25-item Likert-scale questionnaire covering learning pace adjustment, material and example adjustment, repetition and correction, individual handling of grammatical errors, and direct ustaz guidance. Nahwu learning outcomes were measured through documented examination scores. The sample consisted of 53 santri selected from an accessible population of 110 through Slovin formula and proportionate stratified random sampling. The data were analyzed through validity and reliability testing, descriptive statistics, residual normality and linearity tests, Pearson correlation, and simple linear regression. **Findings:** The PPS instrument showed excellent internal consistency with Cronbach's Alpha = 0.990. Simple linear regression indicated that PPS had a significant positive effect on Nahwu learning outcomes, $B = 0.642$, $t = 14.368$, $p < 0.001$. The model produced $R^2 = 0.802$, meaning that PPS statistically explained 80.2% of the variance in documented Nahwu scores within the sample. **Future Research:** Future studies should examine prior Arabic competence, learning motivation, feedback intensity, frequency of sorogan sessions, teacher-student ratio, pesantren routines, and longitudinal achievement data. **Implications:** The findings indicate that sorogan can be strengthened as a pesantren-based pedagogical practice through paced progression, repeated reading, individual

correction, and direct grammatical guidance. **Novelty:** The study contributes to Islamic education scholarship by reframing sorogan as an empirically measurable Islamic personalized pedagogy rooted in talaqqi, muraja'ah, adab, and ustaz-santri mentorship.

Keywords: Islamic personalized pedagogy; Sorogan; Nahwu learning outcomes; pesantren education; Arabic grammar learning; Islamic education.

ABSTRAK

Tujuan: Penelitian ini bertujuan untuk menguji pengaruh Personalisasi Pembelajaran Berbasis Sorogan (PPS) terhadap hasil belajar Nahwu santri di Pondok Pesantren KH. Syamsuddin Durisawo Ponorogo dan menempatkan sorogan sebagai bentuk pedagogi personalisasi Islam yang dapat diukur secara empiris. **Metode:** Penelitian ini menggunakan desain kuantitatif korelasional dengan orientasi *ex post facto*. PPS diukur melalui angket skala Likert yang terdiri atas 25 butir, mencakup penyesuaian tempo belajar, penyesuaian materi dan contoh, pengulangan dan koreksi, penanganan kesalahan gramatikal secara individual, serta bimbingan langsung ustaz. Hasil belajar Nahwu diukur melalui dokumentasi nilai ujian. Sampel berjumlah 53 santri yang dipilih dari populasi terjangkau sebanyak 110 santri melalui rumus Slovin dan proportionate stratified random sampling. Data dianalisis melalui uji validitas dan reliabilitas, statistik deskriptif, uji normalitas residual dan linearitas, korelasi Pearson, serta regresi linear sederhana. **Hasil:** Instrumen PPS menunjukkan konsistensi internal sangat tinggi dengan Cronbach's Alpha = 0,990. Regresi linear sederhana menunjukkan bahwa PPS berpengaruh positif dan signifikan terhadap hasil belajar Nahwu, $B = 0,642$, $t = 14,368$, $p < 0,001$. Model menghasilkan R Square = 0,802, yang berarti PPS secara statistik menjelaskan 80,2% variasi dokumentasi nilai Nahwu pada sampel penelitian. **Penelitian Selanjutnya:** Penelitian mendatang perlu menguji kompetensi awal bahasa Arab, motivasi belajar, intensitas umpan balik, frekuensi sorogan, rasio ustaz-santri, rutinitas pesantren, dan data capaian longitudinal. **Implikasi:** Temuan ini menunjukkan bahwa sorogan dapat diperkuat sebagai praktik pedagogis pesantren melalui pengaturan tempo belajar, pembacaan berulang, koreksi individual, dan bimbingan gramatikal langsung. **Kebaruan:** Penelitian ini berkontribusi pada kajian pendidikan Islam dengan membingkai sorogan sebagai pedagogi personalisasi Islam yang terukur dan berakar pada talaqqi, muraja'ah, adab, serta pendampingan ustaz-santri.

Kata Kunci: pedagogi personalisasi Islam; sorogan; hasil belajar Nahwu; pendidikan pesantren; pembelajaran gramatika Arab; pendidikan Islam.

Introduction

Nahwu learning occupies a central position in pesantren education because it gives santri access to the grammatical structure of Arabic texts that shape religious understanding, scholarly practice, and kitab kuning literacy. Classical Islamic texts used in pesantren are generally written without vowel marks, so students must recognize word functions, syntactic relations, and case endings through grammatical reasoning. Van Bruinessen (2012) places kitab kuning within the intellectual infrastructure of pesantren, while Khusein et al. (2025) demonstrate that Nahwu knowledge significantly influences students' ability to read Arabic texts accurately. Nahwu achievement, therefore, refers to the learner's ability to apply grammatical knowledge when reading, parsing, and interpreting Arabic sentences.

The difficulty of Nahwu learning often emerges from differences in prior knowledge, reading

fluency, memorization habits, and the ability to identify i'rab in context. Khusen et al. (2025) explain that errors in grammatical rule application can disturb Arabic reading fluency and comprehension, especially when students must identify syntactic positions in unvowelled texts. Such variation appears frequently in pesantren classrooms because santri come from diverse educational backgrounds and progress through kitab-based learning at unequal speeds. A uniform pace may leave unresolved grammatical errors for some learners, while other learners need more advanced examples and deeper syntactic explanation.

Sorogan offers a pedagogical setting that responds to this variation. In sorogan, a santri reads or presents a text directly before the ustaz, while the ustaz listens, corrects, asks questions, and decides whether the learner should repeat or proceed. Dhofier (1999) describes the pesantren tradition through close relations among kyai, santri, and classical Islamic learning, and Madjid (1997) views pesantren as an educational environment with its own cultural and intellectual logic. Within this tradition, sorogan functions as a face-to-face learning encounter in which grammatical errors can be detected at the moment of reading.

Sorogan should be understood as part of Islamic knowledge transmission rather than a technical classroom routine. The method carries affinities with talaqqi, where learning occurs through direct reception and correction from a teacher, and with muraja'ah, where repeated review strengthens mastery. Pohl (2006) shows that pesantren education contributes to Islamic civil society through social and moral formation, while Azra et al. (2010) describe pesantren and madrasah as institutions that connect Muslim learning with Indonesian educational ideals. These perspectives situate sorogan as a pesantren-rooted pedagogy shaped by knowledge, discipline, guidance, and adab.

The pedagogical structure of sorogan can also be interpreted through personalized learning. Personalized learning refers to instructional adaptation based on learners' knowledge, experience, needs, and goals (Shemshack & Spector, 2020), and Zhang et al. (2020) argue that empirical studies remain necessary to clarify how personalized learning affects educational outcomes. In sorogan, the ustaz can slow down or accelerate the learning pace, adjust examples, ask the santri to repeat a passage, correct individual grammatical mistakes, and provide direct guidance. These observable features make sorogan suitable for quantitative operationalization as Personalized Sorogan-Based Learning (PPS).

Differentiated instruction offers another lens for interpreting sorogan. Differentiated instruction responds to student diversity through adjustments in content, process, product, and learning environment according to readiness, interest, and learning profile (Tomlinson, 2017). A meta-analysis by AM et al. (2023) found a significant positive effect of differentiated instruction on student learning outcomes across varied educational contexts. In a Nahwu sorogan setting, differentiation appears when the ustaz selects grammatical explanations based on a santri's level, provides different amounts of repetition, or corrects an i'rab error according to its cause.

Mastery learning and sociocultural learning further explain why sorogan may relate to stronger

Nahwu achievement. Bloom (1984) argues that one-to-one tutoring and mastery-oriented instruction can produce stronger learning outcomes because learners receive immediate support and continue working until they reach a desired level of understanding. Vygotsky's (1978) zone of proximal development explains learning through guided assistance from a more capable person. In Nahwu learning, the ustaz helps the santri move from tentative recognition of a rule toward more accurate grammatical reasoning in Arabic text.

Empirical studies on pesantren learning have examined sorogan, yet many remain descriptive or qualitative. Febrian et al. (2024) found that sorogan supported students' understanding of Kitab Jurumiyah through attentive teacher explanation and direct interaction. Khoiruddin et al. (2025) describe sorogan as a pesantren method that contributes to cognitive, affective, and psychomotor outcomes, while Suresmana et al. (2025) trace the movement of pesantren learning models from sorogan to digital learning. Recent work on kitab kuning instruction also stresses that pesantren pedagogy involves textual comprehension, teacher mediation, and disciplined learning culture (Putra & Rofi'ah, 2026). The specific link between PPS and documented Nahwu achievement still needs clearer quantitative testing.

Pondok Pesantren KH. Syamsuddin Durisawo Ponorogo provides a relevant context for this study. The pesantren has an active Nahwu learning environment and documented Nahwu learning outcome scores that vary across achievement categories. This variation allows regression analysis to examine whether PPS scores are statistically associated with Nahwu outcomes. The available score documents also support a quantitative design because the dependent variable can be operationalized through recorded achievement data, while PPS can be measured through five personalized features of sorogan.

Based on this background, the study examines the effect of PPS on santri Nahwu learning outcomes at Pondok Pesantren KH. Syamsuddin Durisawo Ponorogo. The study contributes to Islamic education research by reframing sorogan as a measurable form of Islamic personalized pedagogy and by testing its empirical relationship with documented Nahwu achievement. This framing preserves the pesantren meaning of sorogan while making its pedagogical features visible for educational evaluation.

Theoretical Framework: Sorogan as Islamic Personalized Pedagogy

PPS is grounded in the premise that sorogan contains observable forms of personalization. Personalized learning emphasizes instructional adaptation to learners' readiness, needs, and progress (Shemshack & Spector, 2020), while differentiated instruction explains how teachers adjust content, process, and support in response to learner diversity (Tomlinson, 2017). In PPS, these principles appear through learning pace adjustment, adjustment of material and examples, repetition and correction, individual handling of grammatical errors, and direct ustaz guidance. These indicators translate the practical experience of sorogan into measurable pedagogical dimensions.

Mastery learning and scaffolding clarify the mechanism through which sorogan may support Nahwu learning. Bloom (1984) connects tutoring with corrective support and mastery before progression, while Vygotsky (1978) explains learner development through guided assistance within the zone of proximal development. Sorogan reflects this logic when the ustaz identifies a grammatical error, gives immediate correction, asks the santri to repeat the reading, and allows progression after sufficient understanding. Such guidance matters in Nahwu because the learner must apply rules to actual Arabic text, not merely recall definitions.

Islamic educational concepts situate sorogan within a deeper pedagogical framework. Talaqqi emphasizes direct transmission from teacher to learner, and muraja'ah emphasizes repeated review that stabilizes knowledge. Research on e-talaqqi highlights the role of teacher authority in sustaining Islamic learning interactions (Hamzah et al., 2022), while research on talaqqi and halaqa traditions in Islamic boarding schools connects teacher-student respect with moral and emotional formation (Ismail et al., 2024). Al-Attas (1980) places ta'dib at the center of Islamic education by linking knowledge with proper conduct, while Sahin (2018) argues that Islamic education studies require attention to intellectual, spiritual, and pedagogical traditions within Muslim communities. In pesantren sorogan, the santri does more than answer a grammatical task. The santri learns how to receive correction, show discipline before the ustaz, and refine understanding through guided practice.

Tarbiyah and mujahadah further explain the formative nature of sorogan. Tarbiyah points to gradual cultivation of intellectual and moral capacity, while mujahadah refers to disciplined effort in learning. Nilan (2009) discusses the lived spirit of education in Indonesian pesantren, and Lukens-Bull (2005) shows that pesantren education provides a space where Muslim identity and modernity are negotiated through learning practices. Sorogan fits this tradition because the santri's progress depends on repeated effort, direct supervision, and readiness to receive correction.

This study synthesizes these perspectives by defining PPS as the measurable operationalization of sorogan's personalized pedagogical features in a pesantren-based Nahwu learning context. Modern learning theories clarify the mechanisms of adaptation, mastery, and scaffolding, while Islamic educational concepts explain the ethical and intellectual meaning of direct teacher-student transmission. The framework treats sorogan as an indigenous Islamic personalized pedagogy whose effect can be examined empirically without reducing it to a generic instructional technique.

Methodology

This study employed a quantitative correlational design with an ex post facto orientation. The design was selected because the study examined the measurable association and predictive effect between two variables without manipulating the learning setting: PPS as the independent variable and Nahwu learning outcomes as the dependent variable. Quantitative research is appropriate when variables are operationalized into numerical indicators and analyzed through statistical procedures

(Creswell & Creswell, 2018). A correlational design allows the researcher to estimate the direction, strength, and significance of relationships among measured variables (Cohen et al., 2018).

The research was conducted at Pondok Pesantren KH. Syamsuddin Durisawo Ponorogo. This site was selected because it provides a pesantren-based Nahwu learning context in which sorogan functions as an individualized learning practice. The accessible population consisted of 110 santri with valid Nahwu score records. Using Slovin formula with a 10% margin of error, the minimum sample size was calculated as 53 santri. Sampling was conducted through proportionate stratified random sampling based on students' Nahwu achievement categories, which ensured that high, moderate, and low achievement groups remained represented in the analysis.

Two forms of data were used. The independent variable was measured using a PPS questionnaire consisting of 25 Likert-scale items. Likert-type instruments are commonly used to capture respondents' perceptions, experiences, and attitudes across ordered response categories (Boone & Boone, 2012). The response scale ranged from 5 = strongly agree, 4 = agree, 3 = undecided, 2 = disagree, to 1 = strongly disagree. Negative items were scored in reverse before the total score was calculated. The questionnaire operationalized personalized learning within the sorogan tradition through five indicators: learning pace adjustment, material or example adjustment, repetition and correction, individual handling of Nahwu errors, and direct ustaz guidance.

The dependent variable was measured using documented Nahwu learning outcome scores obtained from official pesantren examination records. The documented scores represented students' achievement in Arabic grammar learning, including mastery of rules, reading accuracy, i'rab identification, sentence structure analysis, and the application of Nahwu rules in Arabic texts. The scores were recorded on a 0 to 100 scale. Only santri with complete and valid Nahwu score records were included in the sampling frame. The study recognizes that these documented academic scores may reflect the local assessment system of the pesantren; therefore, the interpretation of the dependent variable remains bounded by the institutional assessment context.

Instrument validity was examined using Pearson Product Moment item-total correlation. With 53 respondents, the degrees of freedom were 51, and the r-table value at the 0.05 significance level was approximately 0.271. The validity analysis showed that all 25 questionnaire items exceeded this threshold, with corrected item-total correlation coefficients ranging from 0.804 to 0.934 and significance values of $p < 0.001$. These results indicated that each item had an acceptable statistical relationship with the total score and could be retained for the main analysis.

Reliability was assessed using Cronbach's Alpha, which is commonly used to estimate internal consistency for multi-item scales (Hair et al., 2019). The PPS instrument achieved excellent internal consistency, with Cronbach's Alpha = 0.990 for 25 items. This value indicates strong item consistency. A coefficient this high may also indicate conceptual overlap among items, so the result was interpreted with caution. The items were retained because they represented five distinct PPS indicators rather than

a single repeated statement pattern. Future research may refine the scale through exploratory factor analysis, confirmatory factor analysis, or item reduction.

Data collection was conducted in several stages. First, the researcher obtained administrative permission from the pesantren and identified the available Nahwu score records. Second, the population list was checked to ensure that only santri with valid Nahwu scores were included. Third, the sample was selected proportionally from high, moderate, and low achievement categories. Fourth, the PPS questionnaire was distributed to the selected santri with a clear explanation of the response scale and confidentiality of responses. Fifth, Nahwu learning outcome scores were collected from documented examination records. The data were coded, scored, checked for completeness, and prepared for analysis using SPSS.

The analysis began with descriptive statistics, including mean, minimum, maximum, standard deviation, and category distribution when needed. Validity was tested through Pearson item-total correlation, and reliability was tested through Cronbach's Alpha. Before hypothesis testing, assumption checks were conducted through residual normality and linearity tests. In regression analysis, residual normality is more relevant than raw-variable normality (Field, 2018). Pearson correlation was used to examine the direction and strength of the association between PPS and Nahwu learning outcomes. The main hypothesis was tested using simple linear regression with the equation $Y = a + bX$, where Y refers to Nahwu learning outcomes, X refers to PPS, a is the constant, and b is the regression coefficient.

Results

This section presents the statistical findings related to the reliability of the PPS questionnaire, descriptive profiles of PPS and Nahwu learning outcomes, assumption testing, correlation analysis, and simple linear regression.

1. Instrument Reliability and Descriptive Profile

Table 1. Reliability coefficient of the PPS questionnaire

Instrument	Number of Items	Cronbach's Alpha	Corrected Item-Total Correlation Range	Interpretation
PPS Questionnaire	25	0.990	0.804-0.934	Reliable; excellent internal consistency

The reliability coefficient indicates that the PPS questionnaire had very high internal consistency. Educationally, this means that the items captured a coherent set of personalized sorogan experiences across pace adjustment, material adjustment, repetition, individual correction, and direct guidance. The high alpha value was interpreted cautiously because a very strong coefficient may reflect overlap among items.

Table 2. The descriptive statistics for PPS and Nahwu learning outcomes

Variable	N	Minimum	Maximum	Mean	Standard Deviation
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PPS	53	52	125	92.28	20.381
Nahwu Learning Outcomes	53	40	95	72.72	14.610

The PPS score had a mean of 92.28 with a standard deviation of 20.381, indicating considerable variation in students' experience of personalized sorogan. Nahwu learning outcomes ranged from 40 to 95, with a mean of 72.72 and a standard deviation of 14.610. This variation supports correlational and regression analysis because both variables show sufficient spread across the sample.

2. Assumption Testing

Table 3. The raw variables and the unstandardized residuals.

Variable	Kolmogorov-Smirnov Sig.	Shapiro-Wilk Sig.	Interpretation
PPS	0.200	0.073	Normally distributed
Nahwu Learning Outcomes	0.179	0.005	Mixed result; normal by K-S, non-normal by S-W
Unstandardized Residual	0.200	0.690	Normally distributed

The raw PPS scores met the normality assumption under both Kolmogorov-Smirnov and Shapiro-Wilk tests. The raw Nahwu scores produced a mixed result because the Kolmogorov-Smirnov value exceeded 0.05, while the Shapiro-Wilk value was below 0.05. For regression, however, Field (2018) emphasizes residual behavior, and the unstandardized residuals were normally distributed under both tests. Taken together, the residual normality evidence supports the use of simple linear regression in the present model.

The residual distribution was also examined visually through a histogram, Q-Q plot, and boxplot. These visual diagnostics support the assumption that the regression model did not exhibit serious residual distortion before the linearity test was interpreted.

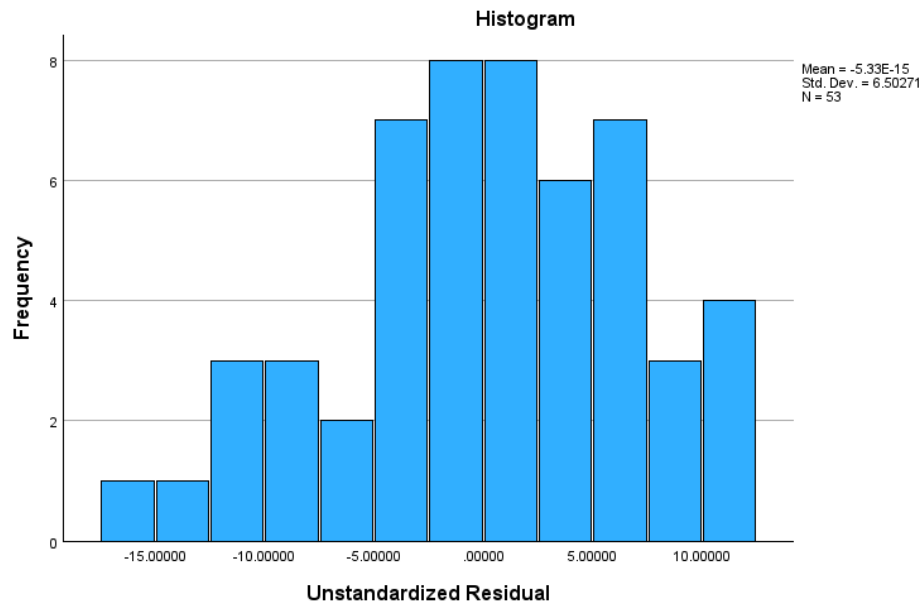


Figure 1. Histogram of Unstandardized Residuals

Figure 1 shows that the residuals are centered around zero and do not display a severe asymmetric pattern.

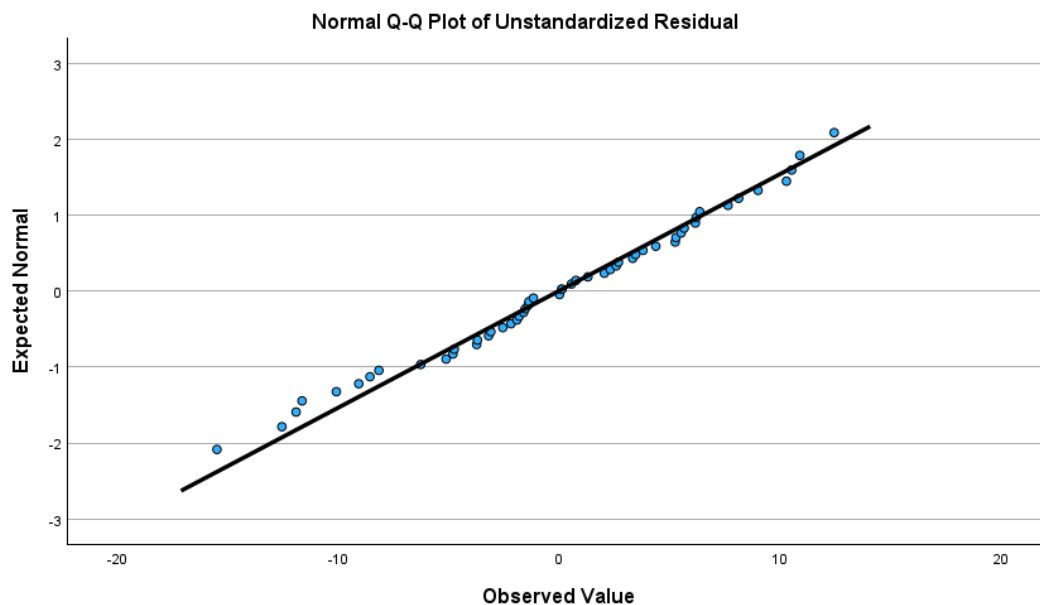


Figure 2. Normal Q-Q Plot of Unstandardized Residuals

Figure 2 shows that most points are positioned close to the diagonal line, indicating an acceptable residual distribution for the regression model.

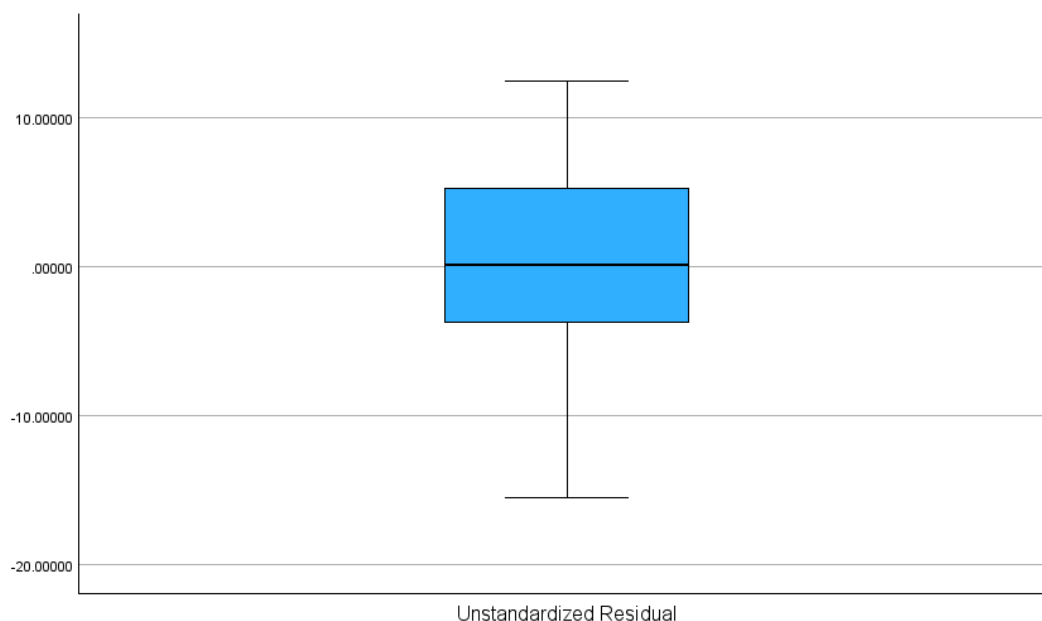


Figure 3. Boxplot of Unstandardized Residuals

Figure 3 does not show extreme residual outliers, which supports the adequacy of the regression assumption checks.

Tabel 4. The linearity test between PPS and Nahwu learning outcomes

Source	F	Sig.	Interpretation
Combined	4.435	0.006	Overall between-group variation is significant
Linearity	154.618	<0.001	Linear component is significant
Deviation from Linearity	0.680	0.819	No significant deviation from linearity

The linearity test showed a significant linear component, $F = 154.618$, $p < 0.001$, and no significant deviation from linearity, $F = 0.680$, $p = 0.819$. Since the deviation value exceeded 0.05, the relationship between PPS and Nahwu learning outcomes can be treated as linear. The linearity analysis confirm the statistical appropriateness of testing the hypothesis through simple linear regression.

3. Correlation and Regression Analysis

Tabel 5. The Pearson correlation coefficient

Variables	Pearson r	Sig.	N	Interpretation
PPS and Nahwu Learning Outcomes	0.895	<0.001	53	Positive, very strong, significant correlation

The correlation coefficient was positive and very strong, $r = 0.895$, $p < 0.001$. This result indicates that santri who reported stronger PPS experiences tended to have higher documented Nahwu scores. In practical terms, the association suggests that direct ustaz guidance, individual error correction, and repeated reading may be closely related to better grammatical application in Arabic texts.

Tabel 6. The regression coefficients

Predictor	B	Std. Error	Beta	t	Sig.
Constant	13.482	4.220	-	3.194	0.002
PPS	0.642	0.045	0.895	14.368	<0.001

The regression equation is $Y = 13.482 + 0.642X$. This means that every one-point increase in PPS score statistically predicts an increase of 0.642 points in Nahwu learning outcome score within the sample. The significance value was below 0.05, so the null hypothesis was rejected and the alternative hypothesis was accepted. Because the design is correlational and ex post facto, this result should be interpreted as statistical prediction rather than experimental causality.

Tabel 7. The simple linear regression analysis

R	R Square	Adjusted Square	R	Std. Error of the Estimate	Interpretation
0.895	0.802	0.798	6.566		PPS explains 80.2% of the variance in Nahwu learning outcomes

The R Square value was 0.802, indicating that 80.2% of the variance in documented Nahwu learning outcomes was statistically explained by PPS in this sample. The ANOVA test for the regression model was significant, $F(1, 51) = 206.426$, $p < 0.001$. The significant ANOVA value confirms that the regression model was statistically meaningful, while the remaining 19.8% of variance may relate to other learning factors such as prior Arabic competence, learning motivation, memorization habits, feedback intensity, or frequency of sorogan sessions.

Discussion

The analysis reveals a strong positive relationship between PPS and Nahwu learning outcomes. The regression coefficient indicates that higher PPS scores statistically predicted higher Nahwu scores, while $R^2 = 0.802$ shows a strong model explanation within the sample. The evidence carries educational significance because sorogan enables the ustaz to listen to each santri, identify specific reading or grammatical errors, and decide whether the learner should repeat, receive additional explanation, or proceed to the next material.

This pattern is consistent with personalized learning theory. Personalized learning emphasizes adaptation of instructional pathways, learning materials, and support according to learner needs and progress (Shemshack & Spector, 2020). In sorogan, personalization does not depend on digital platforms or automated systems. It appears in the direct encounter between ustaz and santri. The ustaz adjusts pace, selects relevant examples, corrects mistakes, and gives immediate feedback based on the learner's demonstrated ability at that moment.

The evidence also corresponds with differentiated instruction. Tomlinson (2017) describes differentiation as adjustment of content, process, product, and environment based on readiness, interest, and learning profile. AM et al. (2023) found a significant positive effect of differentiated instruction on learning outcomes across multiple studies. Sorogan may be interpreted as a differentiated pesantren practice because santri progress through Nahwu learning at varied individual

paces rather than at a fixed collective pace. Some learners need repeated reading, some need clarification of grammatical position, and others need more advanced examples.

Mastery learning provides a further explanation. Bloom (1984) argues that tutoring and mastery-oriented instruction strengthen achievement because learners receive corrective support before moving to more difficult material. Sorogan reflects this logic when the ustaz requires repeated reading or explanation until the santri demonstrates sufficient understanding. This process is particularly relevant in Nahwu because small errors in *i'rab*, word function, or sentence structure can change meaning and weaken comprehension of classical texts.

Vygotsky's concept of the zone of proximal development adds a sociocultural interpretation to the finding. Learners can perform beyond their independent level when guided by a more capable person (Vygotsky, 1978). In Nahwu learning, many santri may recognize a rule but struggle to apply it in an actual Arabic sentence. Sorogan places the ustaz at the point of difficulty, where correction and questioning can move the learner from partial recognition toward grammatical reasoning. This scaffolding helps explain why PPS was strongly associated with documented Nahwu achievement.

The statistical evidence gains broader pedagogical meaning when interpreted through Islamic educational tradition. Sorogan resembles talaqqi because knowledge is received through direct teacher-student transmission. Dhofier (1999) identifies the kyai-santri relationship as a core element of pesantren tradition, and van Bruinessen (2012) situates kitab kuning learning within Indonesian Islamic scholarly transmission. Hamzah et al. (2022) show that talaqqi-based Islamic learning depends on teacher authority and guided interaction, while Ismail et al. (2024) link talaqqi and halaqa traditions with adab, respect, and moral development in Islamic boarding schools. These perspectives suggest that the individualized guidance measured by PPS carries both instructional and ethical meaning.

Muraja'ah also helps explain the role of repetition in sorogan. Repetition in PPS is not mechanical repetition. It is a corrective process that allows the santri to revisit a grammatical error, pronounce or parse the text again, and demonstrate improved understanding. Febrian et al. (2024) found that sorogan supported students' understanding of Kitab Jurumiyah through attentive teacher explanations and direct interaction. The present study extends that line of inquiry by showing that repeated correction and direct guidance are statistically related to Nahwu achievement.

Ta'dib and adab clarify the ethical dimension of sorogan. Al-Attas (1980) frames education through the formation of proper conduct in relation to knowledge, while Sahin (2018) argues that Islamic education studies require engagement with Muslim intellectual and pedagogical traditions. In sorogan, the santri learns to read carefully, accept correction, prepare before presenting a text, and respect the authority of knowledge. These ethical dispositions are relevant to Nahwu learning because grammatical mastery requires patience, accuracy, humility, and disciplined attention.

Sorogan can therefore be understood as an indigenous Islamic personalized pedagogy. This term does not detach sorogan from pesantren culture. It makes the personalized features of sorogan

analytically visible: paced progression, individual correction, repeated reading, direct supervision, and guided mastery. Pohl (2006) explains that pesantren education has a civic and moral dimension, and Azra et al. (2010) show that pesantren remain connected to broader national educational ideals. The present finding suggests that a traditional pesantren practice can be evaluated empirically while retaining its Islamic pedagogical meaning.

The contribution of this study lies in bridging empirical educational measurement and Islamic educational discourse. Previous studies often describe sorogan as a traditional method, a cultural inheritance, or a qualitative learning practice. This study treats sorogan as a measurable pedagogical variable without reducing it to a generic technique. By operationalizing PPS through five indicators, the study offers a way to examine pesantren-based individualized learning within a quantitative framework and to discuss its relevance for contemporary Islamic education.

The R Square value of 0.802 should be read carefully. It indicates that 80.2% of the variation in documented Nahwu scores was statistically explained by PPS in this sample. The value is strong, yet it does not mean that PPS is the sole determinant of Nahwu achievement. The remaining 19.8% may relate to prior Arabic literacy, memorization habits, learning motivation, feedback intensity, frequency of practice, teacher-student ratio, pesantren routines, and assessment format. Future models should include these predictors to test whether the PPS effect remains stable in broader settings.

Several limitations need to be acknowledged. The study was conducted in one pesantren, used one predictor variable, and relied on student responses to measure PPS. The dependent variable was taken from documented Nahwu scores, therefore, the empirical evidence may reflect the local assessment structure of the pesantren. Evaluator consistency beyond institutional documentation could not be tested in this model. Future research may use longitudinal designs, larger samples across pesantren, multi-predictor regression, or mixed methods to examine how sorogan operates across different Arabic grammar learning contexts.

Conclusions

This study examined the effect of PPS on santri Nahwu learning outcomes at Pondok Pesantren KH. Syamsuddin Durisawo Ponorogo using a quantitative correlational design with an ex post facto orientation. The analysis showed that PPS had a significant positive effect on documented Nahwu learning outcome scores, $B = 0.642$, $t = 14.368$, $p < 0.001$. The model produced $R^2 = 0.802$, meaning that PPS statistically explained 80.2% of the variance in Nahwu learning outcomes within the sample.

Theoretically, the study contributes to Islamic education by framing sorogan as an indigenous Islamic personalized pedagogy. Sorogan combines individualized pacing, direct teacher supervision, immediate correction, repetition, and guided mastery of Arabic grammar. These features connect contemporary educational concepts of personalization, differentiation, mastery learning, and scaffolding with pesantren traditions of talaqqi, muraja'ah, adab, tarbiyah, and ustaz-santri

mentorship. Practically, pesantren teachers may strengthen Nahwu instruction by documenting recurring grammatical errors, adapting examples to santri readiness, using structured repetition, and applying mastery-based progression. The findings remain bounded by the context of one pesantren, one predictor variable, questionnaire-based PPS data, and documented institutional scores. Future research should test additional predictors, including prior Arabic competence, motivation, feedback intensity, frequency of sorogan sessions, teacher-student ratio, pesantren routines, and longitudinal achievement data.

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