Jurnal Review Pendidikan Dasar:
Jurnal Kajian Pendidikan dan Hasil Penelitian
Vol 12(3), October 2026

e-ISSN: 2460-8475
http://journal.unesa.ac.id/index.php/PD
https://doi.org/10.26740/jrpd.v12n3.p390-404

Understanding the Meaning of Prayer as a Predictor of Prayer Awareness among Junior High School Students

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Abstract: Prayer (*salat*) is an obligatory practice for Muslim adolescents, yet knowing how to pray does not always lead to self-directed performance. This study examined whether understanding of prayer meaning is associated with prayer awareness among seventh-grade students at Al Hikmah Junior High School Surabaya, Indonesia. A quantitative correlational design with purposive sampling was employed, involving one of the five seventh-grade classes. Of the 23 students enrolled in the selected class, 21 completed an expert-validated 10-item objective test of prayer meaning (0–100) and a 16-item four-point Likert questionnaire of prayer awareness (16–64). Data were analysed using descriptive statistics, Shapiro–Wilk and linearity tests, and simple linear regression. Understanding of prayer meaning (M = 75.24, SD = 15.37) and prayer awareness (M = 42.48, SD = 7.01; 66.37%) were both in the high category. Residuals were normally distributed (p = .214), and understanding of prayer meaning was a statistically significant positive predictor of prayer awareness (B = 0.263, t = 2.836, p = .010, R^2 = .298; approximate 95% CI of B [0.07, 0.46]). The model accounted for 29.8% of the variance in prayer awareness, while the remaining 70.2% was not explained by the model. In conclusion, meaning-oriented Islamic Religious Education may support prayer awareness. However, the findings are limited to one purposively selected class and require further examination involving larger and more varied samples.

Keywords: Prayer Awareness; Understanding Of Prayer Meaning; Islamic Religious Education; Junior High School; Simple Linear Regression.

How to Cite: Abdillah, M., Kuncoro, E., Mariana, N., Solihin, A., & Idrus, H. B. (2026). Understanding the Meaning of Prayer as a Predictor of Prayer Awareness among Junior High School Students. *Jurnal Review Pendidikan Dasar: Jurnal Kajian Pendidikan dan Hasil Penelitian, 12*(3), 390-404. https://doi.org/10.26740/jrpd.v12n3.p390-404

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Article Info:
Received: 30 September 2026; Accepted: 29 October 2026; Published Online: 30 October 2026

Published by:
Pendidikan Dasar Universitas Negeri Surabaya

INTRODUCTION

Prayer (*salat*) is one of the five pillars of Islam and a daily point of contact between believers and their religious commitments, and it belongs to the commitments that become obligatory from puberty onwards (Spiegler et al., 2025). Research by Sobi and Köylü (2025), based on interviews with 20 university students, found that most participants evaluated prayer as a means of connecting with God, finding inner peace, and gaining a sense of responsibility. The same study reported that students attached importance to religious practices while describing various difficulties in fulfilling them, and that sensitivity in practice did not match their beliefs about worship. These observations indicate that valuing prayer and performing it consistently can diverge, and the moderate level of religiosity reported by Malaysian students aged 13 to 14 years (Mohammad et al., 2021) suggests that religious commitment at this age still leaves room for educational support, which makes the conditions behind consistent performance an important educational question.

Psychological research has increasingly described prayer as an experience that involves attention, awareness, and well-being. Albatnuni and Koszycki (2020) examined prayer and well-being among Canadian Muslims through the roles of spirituality, mindfulness, optimism, and social support, and Achour et al. (2021) reported that *salat* moderated the relation between job stress and life satisfaction among Muslim nursing staff in Malaysia. Ahmed and Yousaf (2025) surveyed 78 Muslims in the United Kingdom and Pakistan and reported that prayer frequency, the importance attached to undivided attention, and quest orientation together predicted 36% of the variance (adjusted R^2) in mindfulness during worship. Their qualitative themes further indicated that participants experienced prayer as a way of nurturing a relationship with God, and that understanding the meaning of recited verses strengthened the sense of divine presence. Yousaf et al. (2022) had earlier developed the Mindfulness during Worship Scale to measure this attentional quality; Chen et al. (2021) developed a measure of Muslim verbal and active prayer; and Callender et al. (2022) found that first-generation immigrant and refugee Muslim women in the United States perceived prayer as a coping strategy that encouraged intentional awareness. In a broader line of work, Saleem et al. (2021) found that prayer offering and belief salience positively predicted mental health among Muslim university students, and Upenieks (2023) reported that associations between prayer and anxiety varied across prayer types and expectations, which illustrates the prominence of health-related outcomes in this literature.

Developmental and educational research offers a way to connect understanding with sustained practice. Hardy et al. (2022) examined adolescent religious motivation from a self-determination perspective, in which motivations differ in the degree to which religious values have been internalised. Dyer et al. (2022) followed religiosity from age 12 to 20 and examined attendance, prayer, and salience as components that can change across adolescence. Abdullah et al. (2024), in interviews with 23 Muslim youths aged 17 to 20 years, reported that an incomplete learning process was associated with religious confusion, weak theological views, and pseudo-worship practices.

The setting of the present study reflects a similar concern in classroom practice. A preliminary joint evaluation of the 21 students in the target class showed that 52.38% (11 students) still omitted prayer irregularly and needed continuous reminders, 33.33% (7 students) needed routine warnings, and only 14.29% (3 students) performed prayer independently. This distribution suggests that learning about the form of prayer in school has not been matched by self-directed performance in most students. Existing studies reviewed above have primarily focused on university or adult samples, on well-being and mindfulness outcomes, or on qualitative accounts, and research with Indonesian Muslim adolescents has examined religiosity and religious coping in relation to externalizing behavior and loneliness (French et al., 2022). Limited quantitative research has examined whether understanding of prayer meaning is associated with self-directed prayer awareness among early adolescents in Junior High School.

The aim of this study is to examine whether and how understanding of prayer meaning is associated with prayer awareness among seventh-grade junior high school students. This study addresses an aspect of religious education research that has received limited quantitative attention by treating understanding of meaning as a cognitive-affective predictor of self-directed prayer awareness in early adolescence. The study extends previous research by examining prayer meaning with an objective test and prayer awareness with a Likert questionnaire, using simple linear regression within a single-class school context. The findings are intended to inform meaning-oriented instruction in *Pendidikan Agama Islam* (Islamic Religious Education) and to provide baseline estimates for larger studies.

This study addresses three research questions. 1) What is the level of understanding of prayer meaning among seventh-grade junior high school students? 2) What is the level of prayer awareness among the same students? 3) To what extent does understanding of prayer meaning predict prayer awareness?

METHODS

Research Design

This study used a quantitative approach with a correlational design to analyse the association between understanding of prayer meaning (X) and prayer awareness (Y). The design was chosen because the variables were measured as they naturally occur in the classroom, without any experimental treatment. The hypotheses were formulated as follows: the null hypothesis (H0) stated that understanding of prayer meaning does not significantly predict prayer awareness, and the alternative hypothesis (Ha) stated that it does. Data were collected during the first semester of the 2026/2027 academic year, and the regression results are interpreted as predictive associations because the design does not allow causal inference.

Participants and Sampling

The study involved seventh-grade students at Al Hikmah Junior High School, Surabaya, Indonesia, which comprised five seventh-grade classes. One class was purposively selected as the research sample. The selected class consisted of 23 registered students, of whom 21 attended and completed both the test and the questionnaire, resulting in an analytic sample of N = 21 and a completion rate of 91.30%. Thus, the study focused on one purposively selected class rather than the entire seventh-grade population. The findings describe the participating students, and generalisation to other classes or school contexts requires caution.

Instruments

Two instruments were used, and both were reviewed through expert judgment (expert validation). The two instruments operationalised distinct but related constructs. The objective test assessed students' knowledge of prayer recitations, purposes, values, and movements, whereas the questionnaire measured their internal motivation, understanding of prayer obligations, initiative, and consistency in performing prayer.

Table 1. Instruments, Indicators, and Scoring

Variable	Instrument	Format	Items	Score range	Indicators	Validation
Understanding of prayer meaning (X)	Objective test	Multiple choice	10	0–100	Meaning of recitations; purpose and position of prayer; values of prayer; essence of movements	Expert judgment
Prayer awareness (Y)	Questionnaire	Four-point Likert	16	16–64 (raw)	Internal drive; understanding of obligation; initiative without coercion; consistency of worship	Expert judgment

The table shows that X captures what students know about the meaning of prayer, whereas Y captures their inclination to pray without external pressure. Pairing a performance-based test with a self-report questionnaire places the two constructs on different measurement sources, which limits shared method variance and supports a more credible interpretation of any association. The different score ranges also explain why each variable was categorised on a percentage basis in the Results section.

The conceptual model specifies understanding of prayer meaning as the predictor variable (X) and prayer awareness as the outcome variable (Y). The analysis proceeds from descriptive statistics and assumption testing to simple linear regression to estimate

the direction and magnitude of their association. It also makes explicit that the study tests a predictive path in a naturally occurring classroom setting.

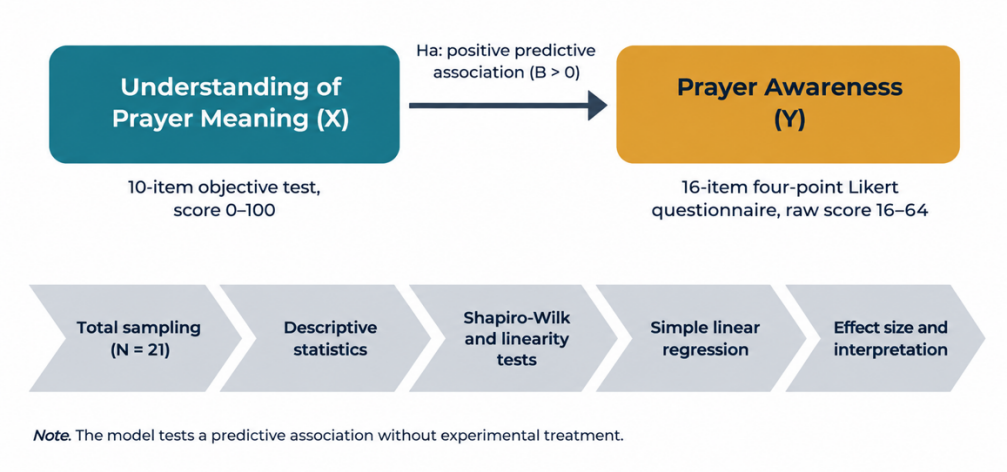


Figure 1. Conceptual Model and Analytical Sequence of the Study

Regression assumptions were examined before hypothesis testing to assess the suitability of the linear model. The analysis focused on the regression coefficient, statistical significance, and explained variance to evaluate the predictive association between the two variables.

Data Analysis

Data were processed using IBM SPSS Statistics. Descriptive statistics (mean, standard deviation, minimum, and maximum) and percentage-based categorisation were used to answer the first two research questions. The Shapiro-Wilk test of the unstandardised residuals and the deviation-from-linearity test were used to check the regression assumptions, and simple linear regression was used to compute the unstandardised coefficient (B), the t-test, and the coefficient of determination (R^2) at a significance level of .05. Guidance by Fritz et al. (2012) and Lakens (2013) emphasises reporting effect size estimates alongside significance tests, so approximate 95% confidence intervals, adjusted R^2, and Cohen's f^2 were derived from the reported coefficients and standard errors.

RESULTS

Descriptive Statistics

Descriptive analysis indicated that students demonstrated relatively high levels of understanding of prayer meaning and prayer awareness, although the degree of variation differed between the two variables.

Table 2. Descriptive Statistics of the Study Variables (N = 21)

Variable	Min	Max	M	SD	CV (%)	Category of the mean
Understanding of prayer meaning (X)	50.00	100.00	75.24	15.37	20.43	High
Prayer awareness (Y)	29.00	58.00	42.48	7.01	16.50	High (66.37% of maximum)

Note. CV = coefficient of variation (SD/M), computed by the authors from the reported values.

The two means fall in the high band of their respective scales, and the observed ranges cover a wide part of each scale. The slightly larger relative dispersion in understanding (CV = 20.43%) than in awareness (CV = 16.50%) indicates that students differ more in what they know about prayer meaning than in their inclination to pray. The lowest observed understanding score of 50.00 shows that no student fell in the lowest bands, which suggests that the class has a basic foundation of knowledge. The spread in both variables is sufficient for estimating a slope, so the data are suitable for the regression reported below.

Category Distributions

The categorical distributions revealed differences in the achievement patterns of understanding of prayer meaning and prayer awareness. Although most students demonstrated high levels of understanding, a smaller proportion reached the high or very high categories of prayer awareness.

Table 3. Frequency Distribution of Understanding of Prayer Meaning (X)

Score range	Percentage band	Category	f	%
81–100	81.00–100.00%	Very high	10	47.62
61–80	61.00–80.99%	High	6	28.57
41–60	41.00–60.99%	Moderate	5	23.81
21–40	21.00–40.99%	Low	0	0.00
0–20	0.00–20.99%	Very low	0	0.00
Total			21	100.00

Table 4. Frequency Distribution of Prayer Awareness (Y)

Raw score	Percentage band	Category	f	%
52–64	81.25–100.00%	Very high	2	9.52
40–51	62.50–81.24%	High	12	57.14
28–39	43.75–62.49%	Moderate	7	33.33
16–27	25.00–43.74%	Low	0	0.00
Total			21	100.00

Understanding is concentrated at the upper end, with 76.19% of students in the high or very high categories, whereas awareness is concentrated in the high category, with 66.67% in the upper two categories. The 9.52-percentage-point difference suggests that understanding of prayer meaning is attained more widely than a self-directed inclination

to pray. This pattern is consistent with the possibility that understanding is one contributor among several to awareness, and it indicates where instructional attention is still needed. The absence of students in the low categories shows that the concern lies in moving students from moderate to high awareness and not in remedying severe deficits.

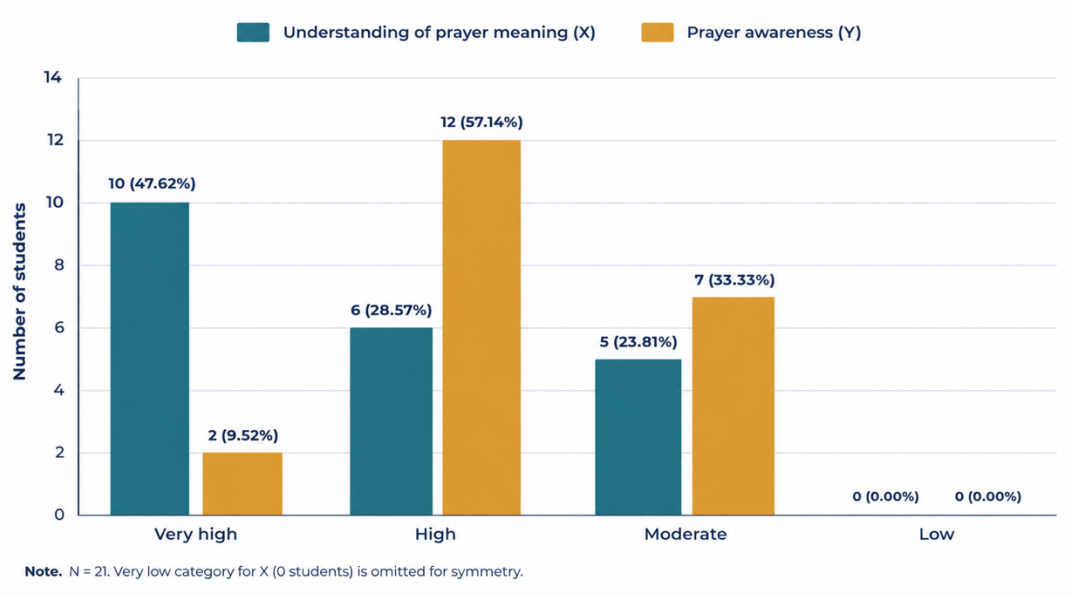


Figure 2. Distribution of Students across Categories of Understanding and Awareness

The difference in category distributions suggests that students' understanding of prayer meaning does not necessarily translate into an equivalent level of self-reported prayer awareness. This pattern indicates that other factors may also contribute to students' willingness to perform prayer independently.

Assumption Tests

Before conducting the regression analysis, the normality of the residuals and the linearity of the relationship between the predictor and outcome variables were examined. These tests were conducted to assess whether the data met the relevant assumptions for simple linear regression.

Table 5. Results of Normality and Linearity Tests

Test	Statistic	df	p	Conclusion
Shapiro-Wilk (unstandardised residuals)	W = 0.941	21	.214	Normally distributed
Deviation from linearity	F = 1.215	n/a	.342	Linear relationship

Note. Both p-values exceed .05, so neither assumption was rejected.

Both assumptions were retained, which means the linear model is an adequate description of the data. The non-significant deviation from linearity indicates that a straight line does not systematically miss the pattern in the scores. With only 21 cases, such tests have limited power, so the conclusion is that the assumptions were not violated and not that they are guaranteed. This reading supports proceeding with the regression while treating the estimates with appropriate caution.

Simple Linear Regression

Simple linear regression was conducted to examine the extent to which understanding of prayer meaning predicted prayer awareness. The analysis focused on the regression coefficient, significance level, coefficient of determination, and effect size.

Table 6. Simple Linear Regression Coefficients (Dependent Variable: Prayer Awareness)

Predictor	B	SE	t	p	Approx. 95% CI
Constant	22.661	7.121	3.182	.005	[7.76, 37.57]
Understanding of prayer meaning (X)	0.263	0.093	2.836	.010	[0.07, 0.46]

Note. Regression equation: Y = 22.661 + 0.263X. Confidence intervals were computed by the authors from B, SE, and df = 19 (t critical = 2.093).

Table 7. Model Summary

R	R^2	Adjusted R^2	F(1, 19)	p	Cohen's f^2
.546	.298	.261	8.04	.010	0.42

Note. R, adjusted R^2, F, and f^2 were derived by the authors from the reported R^2 and t. F equals t^2 for a single predictor.

The null hypothesis was rejected, so understanding of prayer meaning is a statistically significant positive predictor of prayer awareness. Each additional point of understanding corresponds to an average increase of 0.263 points in awareness, which equals 2.63 points for every 10-point difference in understanding. The model shares 29.8% of the variance in awareness (adjusted R^2 = .261), a substantial proportion for a single psychological predictor, and the remaining 70.2% is associated with factors outside the model. The confidence interval for the slope is wide and excludes zero, which indicates a reliable direction with limited precision in magnitude.

The regression equation indicates a positive association between understanding of prayer meaning and predicted prayer awareness across the observed score range. The predicted values also illustrate how changes in understanding correspond to changes in the expected awareness scores.

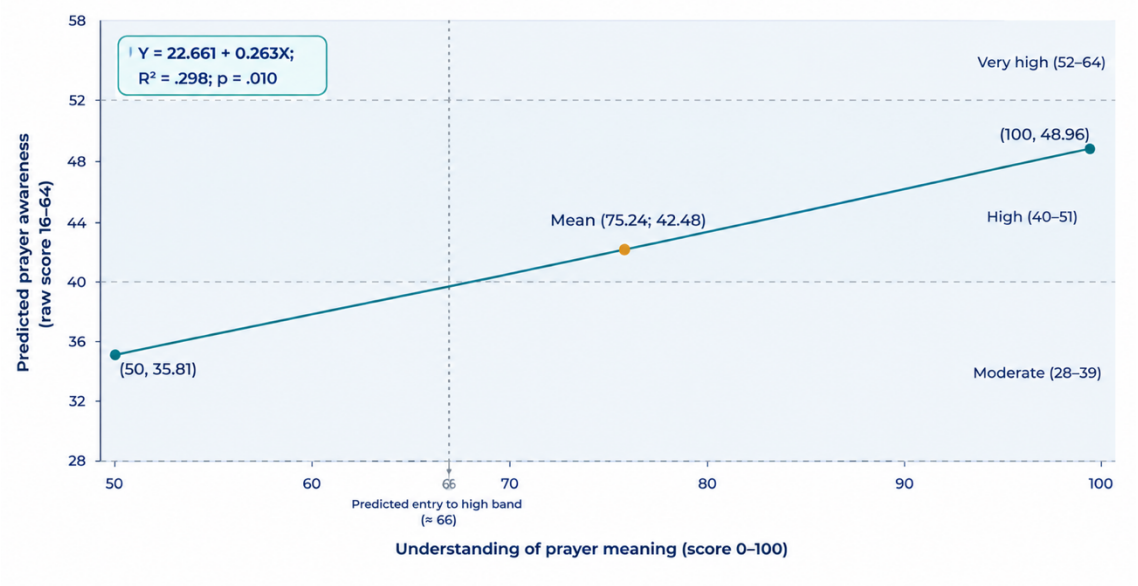


Figure 3. Fitted Regression Line of Prayer Awareness on Understanding of Prayer Meaning

Across the observed range, the predicted awareness rises from 35.81 at the lowest understanding score (50) to 48.96 at the highest (100). These predictions move across the boundary between the moderate band (28–39) and the high band (40–51), which translates the statistical slope into a change of practical category. According to the model, predicted awareness enters the high band at an understanding score of about 66, a value that teachers can treat as an approximate instructional target within the observed range. The intercept of 22.661 serves as a mathematical anchor, and it should not be interpreted as the awareness of students with no understanding because no student scored below 50.

DISCUSSION

Understanding of Prayer Meaning as a Predictor of Prayer Awareness

The findings indicate a positive and statistically significant association between students' understanding of prayer meaning and their awareness of performing prayer, with the regression model accounting for 29.8% of the variance in prayer awareness. A plausible explanation is that students who grasp the meaning of recitations, the purpose of prayer, and the values behind movements can experience prayer as purposeful, which makes self-initiated performance easier to sustain. This explanation is consistent with Sulalah et al. (2024), who reported among Muslim university students that religious practice and religious altruism were involved in the link between childhood religiosity and learning motivation, and with Afwadzi et al. (2024), who described religious texts as a source of both understanding and practice among Islamic university students in Indonesia. In this reading, understanding functions as a cognitive-affective resource that can be drawn on when the teacher is not present.

The result also connects with previous research on Muslim students and adolescents. Mulyana (2023) reported that junior high school students in Bandung

described Islamic religious education as largely focused on faith, piety (*taqwa*), and worship (63.47%), a school context that is close to the present setting and in which meaning-oriented teaching of prayer can be developed. Guleryuz et al. (2021) reported associations of religious affect with empathy and with self-esteem among 919 Muslim adolescents aged 11 to 14 years in England, which indicates that affective and cognitive aspects of religiosity are related in early adolescence. Different patterns have been reported in studies that measured other outcomes, such as the influence of friends on religiosity and religious coping among 825 Indonesian Muslim high school students (Shen et al., 2023), and this variation may be associated with differences in construct, age group, and measurement. The present finding should therefore be interpreted in relation to early adolescents and a knowledge-based predictor, and it adds to previous research.

Levels of Understanding and Awareness in Relation to Observed Prayer Behaviour

The category distributions showed that 76.19% of students had high or very high understanding and 66.67% had high or very high awareness. The preliminary evaluation, in contrast, showed that only 14.29% of students performed prayer independently. These figures represent different constructs and measurement sources: self-reported prayer awareness and teacher-observed independent prayer performance. Therefore, each figure should be interpreted on its own terms. A comparable distinction between affect, identification, and experience is visible in research on Muslim samples, where attitudes toward religion, experiential religiousness, religious affect, and religious identification are measured with separate instruments (Chen et al., 2020; Guleryuz et al., 2023; Wenzing et al., 2024).

Several explanations may account for the gap, and the data cannot separate them. A four-point self-report format may capture intention and attitude more readily than behaviour, and responses may be shaped by what students consider appropriate to report. The findings should be interpreted in relation to differences in measurement source, because teacher-observed independence is a stricter criterion than self-reported awareness. For practice, this interpretation suggests that schools combine questionnaires with observational records when evaluating whether awareness translates into independent prayer.

Factors Beyond Understanding

The proportion of unexplained variance suggests that prayer awareness may also be associated with factors beyond students' understanding of prayer meaning, including habitual engagement, attentional orientation, and environmental influences. Babula (2023) examined prayer frequency in relation to Maslow's hierarchy of needs across the United States, India, and Turkey, which supports treating habitual engagement as a distinct candidate variable. Upenieks (2022) reported that dimensions of religiosity were related to life meaning and purpose during emerging adulthood, which points to existential and emotional functions of religious practice that a knowledge test does not capture. Family routines, peer influence, and school routines may also be related to awareness; Goodman and Dyer (2020) described variation in religious transmission and

parent-adolescent relationships across adolescents' religious trajectories, and Shen et al. (2023) found that friends influenced adolescents' religiosity and religious coping, although these variables were not measured here and are offered as hypotheses for later testing.

Sulalah et al. (2024) found that religious practice formed part of the pathway from childhood religiosity to self-efficacy and active learning strategies among Muslim university students, and Wenzing et al. (2024) reported that religious identification was associated with fewer depressive symptoms among Muslim adolescents in Germany. Read together, these sources indicate that regular religious practice and religious identification may complement understanding as pathways to awareness. The practical implication is that meaning-oriented teaching may be more effective when it is combined with opportunities for attentive and regular practice. Multi-predictor models would be needed to estimate the independent contribution of understanding after accounting for these additional variables.

Implications for Islamic Religious Education

The results suggest that instruction on prayer can include explicit attention to meaning, such as the significance of specific recitations, the purpose and position of prayer, and the values reflected in its movements. Teachers can use brief reflective activities after practice sessions so that students connect each element of prayer to its meaning and to their daily conduct. Mukhibat et al. (2024) evaluated a semester-long religious education course for 97 students using examinations and portfolios, which shows that structured reflective products can be built into religious instruction, and this approach is useful for designing tasks in which students plan and review their own prayer routines.

The implications should remain proportionate to the evidence. A single predictor sharing 29.8% of the variance indicates that meaning-oriented instruction is a useful component of a broader strategy. Marpaung et al. (2024), in a cross-sectional study of 1,125 Muslim students at state Islamic universities in North Sumatra, analysed Islamic education together with religiosity and depression, which shows that religious learning is examined alongside other student characteristics, and this breadth supports integrating meaning-oriented teaching with other supports for students. Schools may therefore treat the approximate understanding target of 66 points as a planning reference while continuing to monitor awareness and observed behaviour.

Limitations

The sample consisted of one class with 21 students, which limits statistical power and the precision of the estimates, as reflected in the wide confidence interval for the slope. Guan et al. (2023) addressed sample size determination for a given level and power in simple linear regression, and their work indicates that small samples constrain the ability to detect and estimate slopes reliably. The cross-sectional correlational design does not permit causal conclusions, and reverse or reciprocal relations between awareness and understanding cannot be excluded, as longitudinal designs such as the two-year design used by Shen et al. (2023) are needed to separate influence from selection effects. Because

the participants came from a single institution, the findings may not generalise to other classes, grade levels, or school contexts.

Measurement also carries limitations. Both instruments were validated by expert judgment, but reliability coefficients were not available for this report, and the 10-item test provides a coarse measure of understanding, whereas scales of Muslim religiosity have been examined for measurement invariance across countries (Chen et al., 2020). The awareness questionnaire relies on self-report, which may be influenced by social desirability, and the preliminary evaluation used a different criterion that cannot be linked to individual scores here. The analysis included only one predictor, so omitted variables such as prayer frequency, attention during prayer, and family and school context may account for part of the shared variance. Future studies should use larger multi-class samples, report reliability evidence (for example, through Rasch-based scale evaluation as applied to Indonesian Muslim students by Jamin & Damni, 2024), combine self-report with observation, and apply multiple regression or structural equation modelling.

CONCLUSION

The findings demonstrate a positive and statistically significant association between understanding of prayer meaning and prayer awareness among the participating seventh-grade students. For teachers of Islamic Religious Education, this supports giving explicit and regular attention to the meanings behind recitations, movements, and the purpose of prayer, alongside attentive and consistent practice. The evidence is best treated as a baseline from a single class and should inform instructional design without being treated as proof of causal impact. Schools can use the approximate understanding level associated with entry into the high awareness band as a planning reference while tracking observed prayer behaviour.

Future research should test the association in larger and more varied samples across classes and institutions, using designs that can separate the contributions of understanding, attention, habit, and environment. Longitudinal or intervention designs would clarify whether strengthening understanding leads to gains in awareness over time. Multiple regression or structural equation modelling would allow the unique contribution of understanding to be estimated alongside other predictors. Combining questionnaires with observational or teacher-recorded measures would also clarify how self-reported awareness relates to independent prayer performance.

AI Use Statement

The authors used AI tools, if applicable, solely for language editing and proofreading. All authors take full responsibility for the content of this manuscript.

Author Contributions

MA: contributed to conceptualization, research design, data collection, data analysis, and manuscript drafting. EK: contributed to research supervision, methodological guidance, and manuscript review. NM: contributed to conceptualization, theoretical framework, and

manuscript revision. AS: contributed to data interpretation, critical review, and manuscript editing. HBI: contributed to theoretical review, interpretation of findings, and manuscript revision. All authors reviewed and approved the final manuscript.

Funding Statement

This research was funded by the Al Hikmah Islamic Education Foundation (YLPI Al Hikmah Surabaya), Indonesia.

Conflict of Interest

The authors declare no conflict of interest.

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