LMS Leadership in Muslim Societies

Vol.1, No.1 (May 2026), 75-92
P-ISSN: xxxx-xxxx | E-ISSN: xxxx-xxxx
DOI: https://doi.org/10.xxxxx/lms.vxxx.xx
https://ejournal.tuah.or.id/index.php/LMS

Islamic Educational Leadership and Its Impact on Arabic Oral Proficiency

| Research Article |

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Abdul Aziz[1]*, Alawy Tsaqof Alawy Al Aydrus[2], Nani Vidia Astuti[3]

[1] Universitas Islam Negeri Mataram, West Nusa Tenggara, Indonesia
[2] University of Science and Technology, Aden, Yemen
[3] Institut Agama Islam Nurul Hakim, West Tenggara Barat, Indonesia

*Correspondence: abdulaziz@uinmataram.ac.id

Received: 10-03-2026	Accepted: 12-04-2026	Published: 10-05-2026

Abstract. This study examines how Islamic educational leadership affects Arabic oral proficiency, with particular attention to how students acquire Arabic speech rhythm in Indonesian and Yemeni higher education. The study draws on the prophetic leadership perspective, which is grounded in the conduct of Prophet Muhammad, and on the transformational leadership framework developed by Burns and Bass. Together, these traditions allow leadership to be treated as a pedagogical force that influences oral language learning through role modeling, moral and spiritual guidance, intellectual engagement, and the building of supportive learning environments. The study uses a comparative quantitative design and draws on data from 183 undergraduate students in Indonesia and Yemen. It examines the relationships among leadership practices, the quality of the learning environment, and students' Arabic oral proficiency, with particular attention to fluency, pausing, timing, stress placement, and rhythmic accuracy. The results show that Islamic educational leadership has a significant influence on the quality of the learning environment, which in turn predicts students' oral proficiency. The contextual differences between Indonesia and Yemen also indicate that sociolinguistic and educational settings shape how speech rhythm is acquired. These results suggest that values-based Islamic leadership contributes to Arabic speaking development not only through direct instruction but also through pedagogical conditions that produce measurable gains in oral performance. The study extends Islamic educational leadership theory by clarifying how leadership practices translate into specific language learning outcomes across different Islamic higher education contexts.

Keywords: Islamic Educational Leadership, Prophetic Leadership, Transformational Leadership, Arabic Oral Proficiency, Arabic Speech Rhythm

INTRODUCTION

Educational leadership is one of the strongest institutional factors influencing student learning, second only to classroom teaching itself (Leithwood et al., 2020; Robinson, Lloyd, & Rowe, 2008; Robinson, 2011). Muslim higher education outside the Arab world, however, faces a persistent leadership paradox. Many Islamic universities articulate ambitious leadership visions grounded in prophetic exemplarity (uswah hasanah) and transformational ideals, yet the translation of those visions into measurable Arabic oral proficiency remains uneven (Bush, 2020; Bush & Ng, 2019). The question, then, is not whether Islamic higher education has leadership philosophies. The question is whether its leadership effectively

organises the pedagogical conditions through which value commitments become observable competence in students' spoken Arabic. The present study is framed on those terms.

Four decades of research show that leadership influences learning indirectly, by shaping the conditions under which teaching and learning take place (Hallinger & Murphy, 1985; Hallinger, 2011, 2018; Robinson et al., 2007). Marzano, Waters, and McNulty (2005), Louis et al. (2010), Day, Gu, and Sammons (2016), and Walker and Hallinger (2015) all converge on a single causal logic: leaders build organisational cultures, allocate resources, and frame instructional priorities, and these decisions in turn determine the quality of learning that students experience. Hattie (2009) integrates this evidence in his broader meta-synthesis on visible learning and locates leadership effects among the most reliable institutional influences on outcomes. While the relationship between leadership, institutional conditions, and student outcomes has been examined extensively in Anglo-American and East Asian school contexts, how this relationship works in Muslim higher education is still poorly understood, especially when outcomes are measured through specific student competencies.

Islamic higher education complicates the standard picture in productive ways. Leaders in this setting do administrative work, but they also curate the moral, scriptural, and pedagogical ecosystems in which Arabic functions as the language of revelation, classical canon, and academic instruction. Conceptual work on Islamic leadership has long emphasised this stewardship dimension. Ali and Weir (2005), Ahmad (2009), Salleh (2018), Beekun (2012), and Shah (2016) elaborate the ethical and managerial principles of Islamic leadership grounded in Qur'anic and prophetic sources. Beekun and Badawi (2005) extend the lens to balancing the ethical responsibilities of multiple stakeholders, and Shah (2016) shows how Islamic discourse and identity shape leadership practice. The literature is philosophically rich but empirically thin, particularly in connecting prophetic leadership values to measurable learning outcomes at the higher-education level. Empirical research that links Islamic educational leadership to specific student-level outcomes remains scarce, even as Islamic universities continue to expand across the non-Arab world.

Another major stream in leadership studies comes from the transformational tradition developed by Burns (1978), Bass (1985), and Bass and Riggio (2006). In education, this perspective has been advanced by Leithwood and Jantzi (2005), while Avolio and Bass (2004) provide instruments that make it easier to apply in empirical research. The tradition is methodologically strong, but it gives limited attention to theological foundations. Miller (2018) and Bush and Ng (2019) show that leadership effects vary across national contexts and ask whether Western models such as transformational, instructional, and distributed leadership need to be adapted when applied in societies with different cultural foundations. Hallinger and Kovačević (2019) also describe how the field has moved away from administrative control toward instructional and distributed approaches that position leaders as developers of professional capacity. Building on this development, the present study brings the discussion into Islamic higher education by combining prophetic exemplarity with transformational leadership. The study assumes that the two traditions can strengthen one another, and that their integration offers a leadership model better suited to Muslim higher education.

A more recent strand of leadership research adds an important refinement: leadership effects on learning outcomes operate through intermediate institutional and instructional mechanisms. Bellibaş, Polatcan, and Kılınç (2022) show that teacher agency mediates leadership effects on classroom practice, while Hallinger (2018) and Leithwood et al. (2020) report that direct leadership effects on learning are smaller than indirect effects routed

through instructional and organisational conditions. The implication is that any rigorous test of leadership-on-outcomes must also test the conditions through which leadership operates. So far, this multi-step empirical logic has been applied mainly to aggregate outcomes such as standardised examination performance, which leaves open the question of whether the same logic explains variation in specific student-level competencies. The present study addresses this question by selecting a competence outcome that is sensitive to institutional design and theoretically anchored in the educational-leadership tradition.

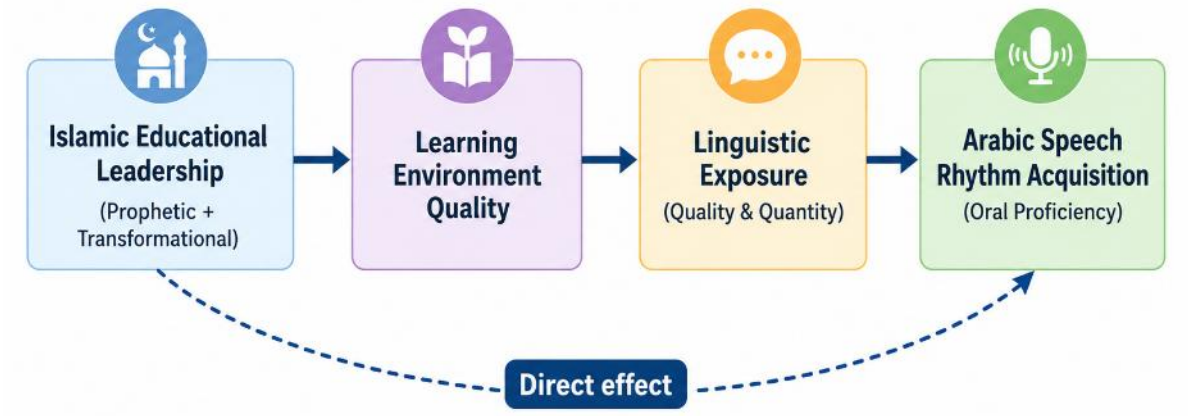
A rigorous test of the leadership-outcomes chain requires an outcome that is sensitive, measurable, and pedagogically meaningful. Arabic oral proficiency, particularly its prosodic dimensions of tempo, stress placement, syllable timing, pausing, and rhythmic accuracy, supplies precisely such an outcome in Islamic higher education (Isaacs & Trofimovich, 2017). Prosody is the dimension of oral competence most resistant to adult acquisition (Derwing & Munro, 2015; Munro & Derwing, 2020) and is highly sensitive to the quality and quantity of exposure that institutions arrange for their students (Saito, 2019; Saito & Plonsky, 2019; Thomson & Derwing, 2016). Arabic speech rhythm acquisition therefore serves here as the focal oral-proficiency outcome and as a stringent indicator of whether institutional leadership has succeeded in building the conditions of learning. If leadership shapes outcomes through environmental conditions, an exposure-dependent competence such as Arabic speech rhythm is exactly where empirical evidence of that influence should appear.

Research on second language acquisition helps explain the cognitive process through which institutional conditions influence individual language development. Ellis (2019) argues that acquisition depends on meaningful task-based interaction, while Ortega (2019) stresses the importance of the broader social environment in which learning takes place. Flege and Bohn's (2021) Revised Speech Learning Model explains how adult learners develop second-language phonetic categories through exposure to input. Cummins (2017) adds that multilingual learners draw on a shared underlying proficiency across languages. Uchihara, Webb, and Yanagisawa (2019) show that repeated exposure supports incidental phonological and prosodic learning, while Sung (2018) points to the value of communication beyond the classroom. These perspectives clarify how acquisition occurs at the learner level, but they do not explain who creates the institutional conditions that make such exposure available. As a result, educational leadership and second language acquisition have largely developed as separate bodies of literature, even though their causal assumptions are closely connected. Leaders shape learning environments, those environments determine the quality and frequency of exposure, and exposure supports acquisition. Connecting these two lines of scholarship is therefore a central conceptual task of the present study.

Empirical evidence from Muslim higher education shows that students master classical texts but struggle to produce native-like speech rhythms (Droua-Hamdani et al., 2016; Abu Guba et al., 2023; Azis & Nasikin, 2024). This pattern confirms that prosodic acquisition is not an automatic by-product of curriculum but a conditioned outcome of institutional design. The convergence of educational-leadership and SLA literatures therefore reveals what is fundamentally a leadership gap, not a linguistic one. Beekun (2012) and Shah (2016) advance Islamic-leadership theory but do not connect their frameworks to measurable learning outcomes. Hallinger (2018) and Leithwood et al. (2020) demonstrate leadership effects on aggregate outcomes but do not test those effects at the micro-skill level, where the construction of learning conditions matters most. The present study addresses this gap by building an integrative model in which Islamic educational leadership, conceptualised as a

prophetic-transformational synthesis, shapes the learning environment, which in turn shapes the prosodic dimension of Arabic acquisition.

Figure 1. Integrative Islamic Educational Leadership and Linguistic Acquisition Model



Three research questions guide this study. The first asks whether Islamic educational leadership that combines prophetic and transformational principles has a significant influence on Arabic oral proficiency, measured here through the acquisition of Arabic speech rhythm. The second asks whether the learning environment functions as a mediating factor in the relationship between leadership and Arabic speech rhythm acquisition. The third asks how the connection between leadership, learning environment, and learning outcomes differs across two Islamic higher education institutions with contrasting ecological settings. From these questions, the study aims to examine the causal pathway from Islamic educational leadership to Arabic oral proficiency, identify the mediating role of learning conditions, and develop an Integrative Islamic Educational Leadership and Linguistic Acquisition Model. The model brings together leadership practices, the quality of the learning environment, and speech rhythm acquisition in one empirical framework.

The study compares the Arabic Language Education programme at UIN Mataram, Indonesia, with the Bachelor's Programme in Arabic Language at the University of Science and Technology (UST) in Aden, Yemen. The two settings represent sharply contrasting language ecologies. UIN Mataram is a typical Indonesian State Islamic University (PTKIN) operating in a non-native Arabic environment in which exposure occurs mainly in classrooms and in places of worship. UST Aden uses Arabic as both the formal and informal medium of instruction within a saturated native ecology. The comparison provides a stringent test of leadership effects: if leadership were to operate only as a function of the surrounding environment, its measurable effect should diminish under saturated ecology and dominate only under impoverished ecology. The cross-ecological contrast also strengthens external validity (Ortega, 2019).

The study draws on four theoretical frameworks. First, Islamic educational leadership is positioned as the focal construct, integrating prophetic leadership rooted in the conduct of Prophet Muhammad with the transformational leadership of Burns (1978), Bass (1985), Bass and Riggio (2006), and Leithwood and Jantzi (2005). Beekun (2012) formulates prophetic character as ethical role modeling, in which integrity, exemplary conduct, and moral and spiritual nurturing (tarbiyah) operate as mechanisms of value transmission. The four transformational dimensions are read as modern operationalisations of prophetic practice:

exemplary conduct as idealised influence, spiritual inspiration as inspirational motivation, and intellectual and pastoral nurturing as intellectual stimulation and individualised consideration.

Second, the SLA framework (Ellis, 2019; Ortega, 2019) explains how exposure, interaction, and pushed output translate institutional conditions into individual acquisition. Third, prosodic acquisition theory, through the Revised Speech Learning Model (Flege & Bohn, 2021) and the Intelligibility Framework (Munro & Derwing, 2020), explains the cognitive mechanisms that support speech rhythm acquisition. Fourth, Social Capital Theory (Putnam, 2000) accounts for how the social capital mobilised by leadership channels learning resources across the institution and beyond. The three supporting frameworks operate downstream of the focal leadership construct: each specifies a layer through which leadership decisions translate into outcomes, with leadership remaining the upstream cause across the chain.

These frameworks combine into the Integrative Islamic Educational Leadership and Linguistic Acquisition Model through a four-step causal chain. Leadership shapes the learning environment; the environment structures linguistic exposure; exposure shapes prosodic acquisition. The chain incorporates direct and indirect effects through mediation. The model also accommodates a moderator, sociolinguistic ecology (native versus non-native), which is assumed to influence the relative strength of each pathway. Three contributions follow. The theoretical contribution is a bridge between educational-leadership and SLA traditions, with prophetic exemplarity serving not as an external add-on but as a constitutive source of leadership legitimacy. The empirical contribution is the first cross-country comparative evidence on how leadership effects materialise in Islamic higher education when measured against a sensitive learning outcome. The practical contribution is guidance for the design of leadership and curriculum policy in Islamic higher education, including a clearer specification of what leadership for learning looks like in non-Anglo, non-secular institutional settings.

METHOD

Research Design

This study sits within educational leadership research and uses Arabic speech rhythm acquisition as a measurable, theoretically grounded indicator of Arabic oral proficiency. Islamic educational leadership is the focal independent variable; learning environment exposure is the mediating variable; and Arabic speech rhythm acquisition is the dependent learning outcome. Arabic speech rhythm therefore functions as the focal oral-proficiency outcome through which the leadership-learning chain is empirically tested. The design is comparative quantitative with an explanatory survey orientation (Creswell & Creswell, 2018). Its aim is to test the causal pathways from Islamic educational leadership through learning conditions to Arabic oral-proficiency outcomes across two ecologically contrasting Islamic higher-education contexts. The comparison probes the stability of leadership effects across distinct language ecologies (Ortega, 2019).

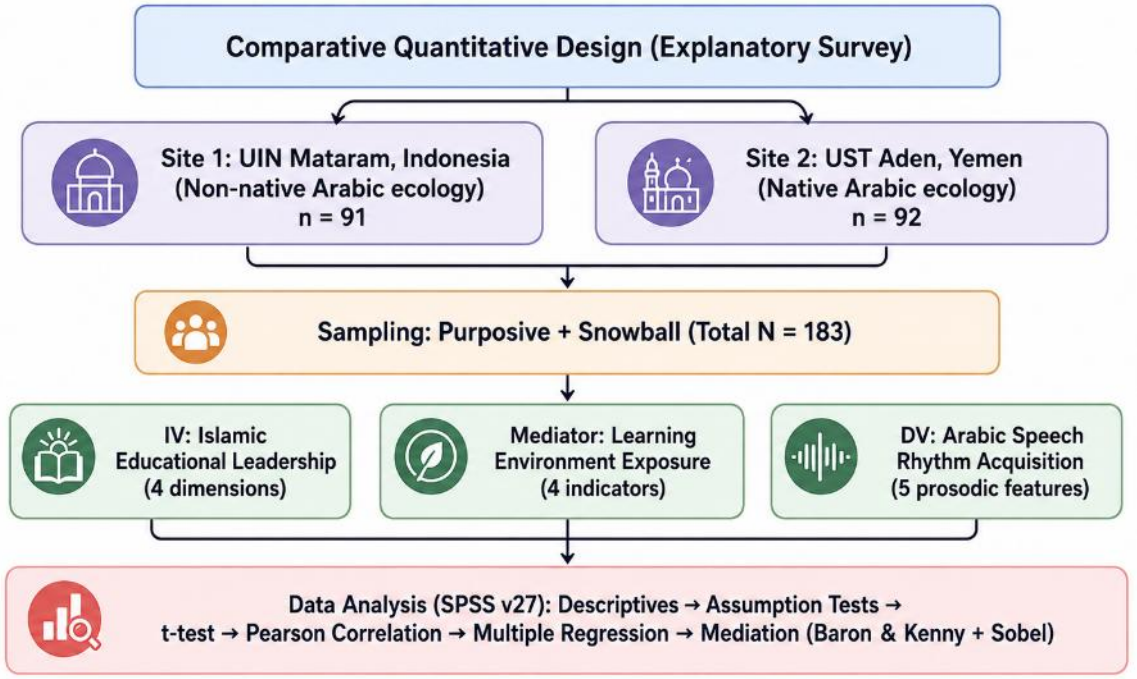


Figure 2. Research Design and Procedure Across the Five Analytical Stages.

Research Sites and Context

The first site was the Arabic Language Education Study Program in the Faculty of Tarbiyah and Teacher Training at UIN Mataram, Indonesia. This context represents a non-native Arabic learning environment in which exposure comes mainly from formal academic activities, religious activities at the campus mosque, and curricular enrichment programs. The second site was the Bachelor's Program in Arabic Language at the University of Science and Technology (UST), Aden, Yemen, which represents a native Arabic environment in which exposure unfolds throughout the day through family interactions, media, and social life.

Population, Sample, and Sampling Technique

The population consisted of all active students enrolled in the two programs. The sample comprised 183 students (91 at UIN Mataram; 92 at UST Aden). The near-equal group sizes were designed to satisfy the homogeneity-of-variance assumption for the independent-samples t-test. The gender composition was 61.2 percent female and 38.8 percent male, with students drawn from the third to the seventh semester. All respondents had completed at least two semesters of language coursework.

Two sampling techniques were combined. Purposive sampling was used to select respondents who met the following criteria: active Arabic-program students who had completed at least two semesters and who agreed to participate. Snowball sampling served as a complementary technique because reaching the target population in Yemen required social mediation through lecturers and class representatives. Snowball sampling can introduce bias because referrals tend to come from similar social networks. To reduce this risk, each respondent was limited to referring up to two peers from different cohorts, and the initial recruitment points were expanded to include three parallel classes at each site.

Instrument and Operationalization of Variables

A structured questionnaire with a five-point Likert scale (1 = strongly disagree; 5 = strongly agree) served as the research instrument. The instrument was constructed to capture leadership as a set of observable pedagogical practices that shape institutional conditions, not as a generic perceptual measure. Islamic educational leadership was operationalised through four dimensions that integrate prophetic and transformational leadership: (1) exemplary conduct (idealised influence / uswah hasanah), (2) inspirational motivation, (3) intellectual stimulation, and (4) individualised consideration. Items were adapted from the Multifactor Leadership Questionnaire (Avolio & Bass, 2004), Hallinger's (2018) instructional leadership framework, and the prophetic leadership frameworks of Beekun (2012) and Shah (2016), with each item phrased to capture a leadership practice that structures the learning environment. Learning environment exposure was operationalised as the institutional outcome of leadership action and comprised in-class exposure intensity, out-of-class exposure, the availability of Arabic-language media, and interaction with native speakers, drawing theoretically on Ellis (2019) and Flege and Bohn (2021). Arabic speech rhythm acquisition functioned as the dependent oral-proficiency outcome and was measured as self-perceived competence on five subdimensions: tempo, pausing, stress placement, syllable timing, and rhythmic accuracy. This measure is a preliminary proxy for prosodic acquisition and requires further validation through phonetic and acoustic measurement (Isaacs & Trofimovich, 2017).

Instrument validation proceeded in two stages. Content validity was assessed by four experts (two Arabic linguists, one Islamic educational management expert, and one psychometrician). Aiken's V values ranged from 0.83 to 0.92, confirming item validity. Construct validity was examined through Confirmatory Factor Analysis (CFA). All factor loadings exceeded 0.60, and the fit indices were acceptable (CFI > 0.90; RMSEA < 0.08). Reliability was assessed using Cronbach's alpha: Islamic educational leadership ($\alpha = 0.89$), learning environment exposure ($\alpha = 0.87$), and Arabic speech rhythm acquisition ($\alpha = 0.91$). All values exceeded the 0.70 threshold, which confirms that the instrument was reliable (Taber, 2018).

Data Collection Procedure

Data were collected over six months (January–June 2025). The questionnaire was distributed via Google Forms in Indonesian for UIN Mataram respondents and in Modern Standard Arabic for UST Aden respondents. Before completing the form, respondents received information on the study's purpose, confidentiality procedures, and the right to withdraw. Informed consent was obtained prior to completion. Class coordinators at each institution supported the distribution to ensure a high response rate and minimise missing data. Final screening showed no substantial missing values, so all 183 responses were retained for analysis.

Data Analysis

Analyses were conducted in IBM SPSS version 27 in five stages. First, descriptive statistics characterised the respondents and the baseline condition of speech rhythm acquisition. Second, classical assumption tests included normality (Kolmogorov–Smirnov), homogeneity of variance (Levene's test), and multicollinearity (Variance Inflation Factor). Third, an independent-samples t-test examined differences in speech rhythm acquisition between the Indonesian and Yemeni groups. Fourth, Pearson correlation mapped the relationships among the variables. Fifth, multiple linear regression tested the simultaneous

and partial effects of Islamic educational leadership and learning environment exposure on speech rhythm acquisition. Mediation was assessed using the Baron and Kenny (1986) procedure, with a Sobel test to assess the significance of the indirect effect. Effect sizes were computed using Cohen's d (Cohen, 1988; Lakens, 2013), with thresholds of 0.20 (small), 0.50 (medium), and 0.80 (large). All tests used a 5 percent significance level.

This sequencing reflects the study's position within educational-leadership research. Each statistical step tests a specific link in the leadership-environment-outcome chain. Descriptive and assumption tests establish data quality; the t-test establishes the contrast between contexts; correlation and regression establish predictive structure; and mediation establishes the indirect pathway through learning conditions. The country-specific regressions then examine how the chain operates under contrasting ecologies, providing a stringent comparative test of leadership effects.

The methodological contribution of the design is its joint operationalisation of leadership and learning environment as variables that can be empirically separated and recombined within the same student population, which allows the indirect pathway through learning conditions to be tested rather than assumed. The instrument is therefore a leadership-research instrument applied to a linguistic outcome, not a linguistic instrument augmented with leadership items. This positioning preserves the study's standing within the educational-leadership research tradition while permitting a sensitive empirical test on a competence outcome that is responsive to institutional design.

RESULT

The results are presented in five subsections that test the central proposition of this study, namely that Islamic educational leadership shapes Arabic oral proficiency through the formation of learning conditions. Findings are reported as evidence of a leadership effect on speech rhythm acquisition, not as an isolated linguistic comparison. Assumption tests confirm that the data are suitable for inferential analysis. The between-group comparison shows that the two leadership and environmental contexts produce measurably different oral-proficiency outcomes. The correlation, regression, and mediation analyses test the causal chain from leadership through learning conditions to speech rhythm acquisition. The country-specific analyses examine how the chain operates under contrasting ecologies.

Assumption Tests

The Kolmogorov–Smirnov test produced $p = 0.112$ (Indonesia) and $p = 0.134$ (Yemen), both above 0.05. The data were normally distributed. Levene's test yielded $F = 0.421$ ($p = 0.517$), which indicates homogeneity of variance across groups. The VIF values for both predictors were 1.42, well below the threshold of 10, which indicates no multicollinearity (Hair et al., 2019).

Between-Group Difference Test

The independent-samples t-test yielded $t = 4.87$ ($df = 181$; $p < .001$), which confirms a statistically significant difference between Indonesian and Yemeni students in Arabic speech rhythm acquisition. Cohen's $d = 1.13$ indicates a large effect.

Table 1. Independent-Samples t-test Results for Arabic Speech Rhythm Acquisition

Variable	Group	N	Mean	SD	t	df	Sig.	Cohen's d
Arabic Speech Rhythm Acquisition	Indonesia	91	3.21	0.62	4.87	181	0.000	1.13
	Yemen	92	3.89	0.58				

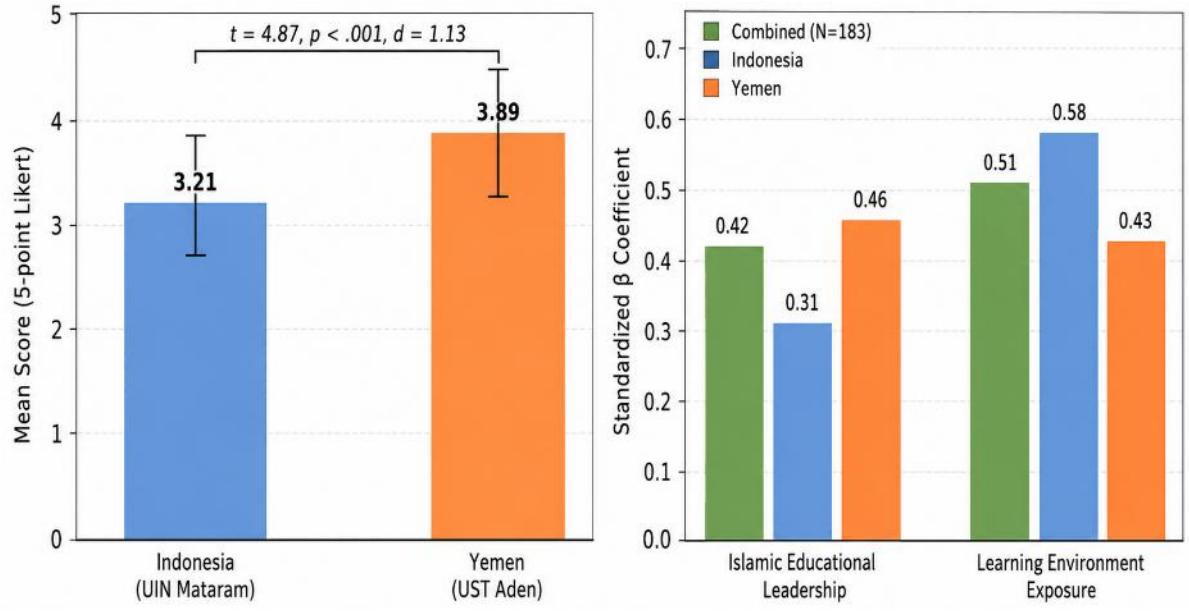


Figure 3. Mean Comparison of Arabic Speech Rhythm Acquisition by Country (left) and Standardised Regression Coefficients Across the Combined and Country-Specific Models (right)

Correlation Analysis

Pearson correlation showed that Islamic educational leadership correlated significantly with speech rhythm acquisition ($r = 0.62$; $p < .001$). Learning environment exposure showed a stronger correlation ($r = 0.70$; $p < .001$). The two predictor variables were moderately correlated ($r = 0.54$; $p < .001$).

Table 2. Pearson Correlation Matrix among Research Variables (N = 183)

Variable	1	2	3
Islamic Educational Leadership	1.00		
Learning Environment Exposure	0.54**	1.00	
Arabic Speech Rhythm Acquisition	0.62**	0.70**	1.00

Multiple Linear Regression

Multiple regression showed that Islamic educational leadership ($\beta = 0.42$; $t = 5.11$; $p < .001$) and learning environment exposure ($\beta = 0.51$; $t = 6.34$; $p < .001$) each exerted positive and significant effects on Arabic speech rhythm acquisition. The model explained 57.8 per cent of the variance (Adjusted $R^2 = 0.578$), with $F(2, 180) = 125.28$; $p < .001$.

Table 3. Multiple Linear Regression of Arabic Speech Rhythm Acquisition on the Two Predictors

Predictor	B	SE B	β	t	Sig.	VIF
Constant	0.412	0.186	n/a	2.215	0.028	n/a
Islamic Educational Leadership	0.387	0.076	0.42	5.11	0.000	1.42
Learning Environment Exposure	0.463	0.073	0.51	6.34	0.000	1.42

Mediation Analysis

The Baron and Kenny (1986) procedure indicated that Path a (from Islamic educational leadership to learning environment exposure) was significant (β = 0.54; p < .001), Path b (from learning environment exposure to speech rhythm acquisition, controlling for leadership) was significant (β = 0.51; p < .001), and Path c' (the direct effect of leadership on rhythm, controlling for environment) remained significant (β = 0.42; p < .001). The Sobel test for the indirect effect produced z = 4.03 (p < .001). This pattern indicates that leadership operates both directly and indirectly through the learning environment, confirming its central role in shaping learning outcomes.

Country-Specific Analyses

Country-specific regression analyses revealed different patterns. For the Indonesian group, learning environment exposure (β = 0.58) was more dominant than Islamic educational leadership (β = 0.31), with *Adjusted* R^2 = 0.539. For the Yemeni group, the two predictors contributed comparably: Islamic educational leadership (β = 0.46) and learning environment exposure (β = 0.43), with *Adjusted* R^2 = 0.488.

Table 4. Country-Specific Regression Results

Group	Predictor	β	t	Sig.	Adj. R^2
Indonesia	Islamic Educational Leadership	0.31	3.42	0.001	0.539
	Learning Environment Exposure	0.58	6.41	0.000	
Yemen	Islamic Educational Leadership	0.46	5.03	0.000	0.488
	Learning Environment Exposure	0.43	4.72	0.000	

DISCUSSION

Theory-Based Interpretation

The findings provide direct empirical support for the central claim of educational-leadership research: that learning outcomes are shaped by the conditions leaders construct within institutions (Leithwood et al., 2020; Hallinger, 2018; Robinson, 2007; Robinson, 2011). The 0.68-point mean difference between UIN Mataram and UST Aden, with a Cohen's d of 1.13, signals more than a difference in language exposure. It signals two contrasting institutional achievements in translating leadership practice into conditions for Arabic oral proficiency. The Yemeni ecology demonstrates leadership effects compounded with environmental saturation; the Indonesian ecology demonstrates the strain of constructing Arabic exposure where it does not exist by default. In both cases, leadership operates as the upstream condition that determines whether and how exposure translates into speech rhythm acquisition, consistent with Day, Gu, and Sammons (2016), Walker and Hallinger (2015), and the broader leadership-effects synthesis of Marzano, Waters, and McNulty (2005), Louis et al. (2010), Robinson, et al., (2008), and Hattie (2009).

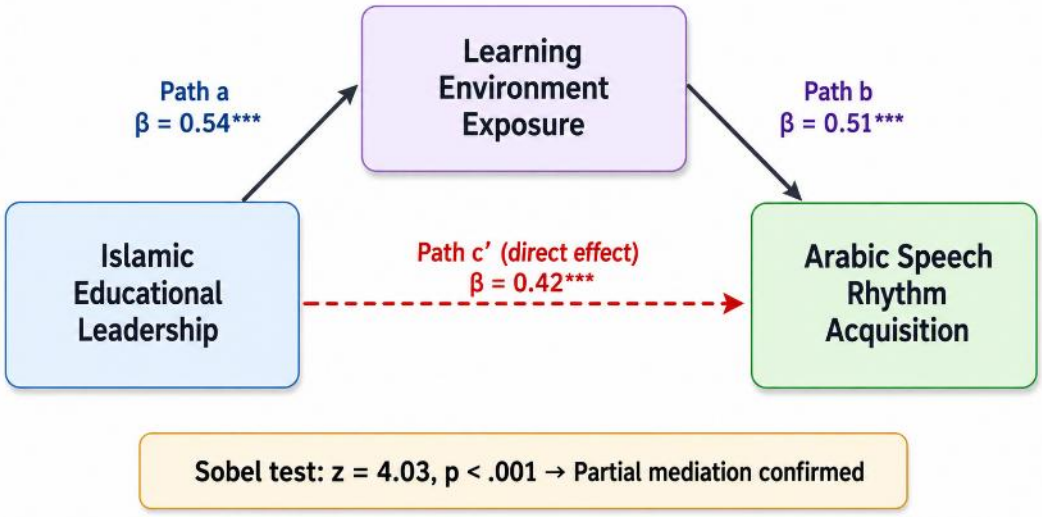


Figure 4. Mediation Pathway Showing the Direct and Indirect Effects of Islamic Educational Leadership on Arabic Speech Rhythm Acquisition through Learning Environment Exposure

The mean difference of 0.68 points on a five-point scale corresponds to a one-category shift from medium to high. The difference between the two ecologies is therefore not merely statistical but substantively meaningful, and its source lies in institutional design rather than in student capacity. Yemeni students inhabit a leadership and ecological context in which prosodic exposure accumulates from early life across multiple registers. Indonesian students must build this foundation through structured instruction, which makes the construction of exposure-rich conditions a leadership task of the first order. Read alongside Cummins (2017), the gap reflects what Cummins terms common underlying proficiency: a foundation that develops more robustly when learners encounter rich contexts of language use, but whose construction in non-native settings depends on deliberate institutional action. The difference between the two sites is therefore best read as evidence of how successfully institutional leadership has constructed the conditions of learning, not as evidence about students themselves.

The mediation analysis provides the most important theoretical contribution of this study to leadership scholarship. The results show that leadership has a significant effect on the learning environment, with Path showing a coefficient of β = 0.54. The learning environment also has a significant effect on the outcome after controlling for leadership, as shown in Path b with β = 0.51. At the same time, the direct effect of leadership on the outcome remains significant, with Path c' showing β = 0.42. The Sobel test further supports this result, with z = 4.03 and p < .001, which indicates partial mediation. Leadership therefore influences Arabic speech rhythm acquisition in two ways. It has a direct influence on student outcomes, but it also works indirectly by shaping the learning environment. In the combined model, the indirect pathway through the learning environment appears to be the stronger mechanism.

This finding is consistent with the work of Hallinger and Murphy (1985), Hallinger (2011), and Hallinger and Kovačević (2019), who argue that leaders influence student outcomes by shaping the conditions in which learning takes place. Bellibaş, Polatcan, and Kılınç (2022) make a similar argument through the mediating role of teacher agency, and the present study extends this logic to the domain of Arabic oral proficiency. The result also questions the view that language acquisition is only a cognitive process. Instead, it shows that institutional leadership functions as an earlier determinant of the opportunities that support cognitive development. While some studies in second language acquisition treat environmental input

as an independent factor, this study positions the learning environment as something shaped by leadership decisions. In this sense, input is not simply available or absent. It is partly produced by leadership. The arguments of Munro and Derwing (2020) and Saito (2019) about the importance of exposure quality remain relevant, but this study adds that the quality of exposure is itself influenced by leadership.

The prophetic dimension distinguishes Islamic educational leadership as a theoretical extension of, not merely an adaptation from, Western leadership frameworks. Exemplary conduct (idealised influence/uswah hasanah) and moral and spiritual nurturing (tarbiyah) operate as mechanisms of value congruence that derive their legitimacy from theological and moral authority, not solely from professional or charismatic authority. The prophetic-transformational synthesis tested here therefore enriches rather than mirrors the transformational framework of Burns (1978), Bass (1985), Bass and Riggio (2006), Leithwood and Jantzi (2005), and Avolio and Bass (2004), by anchoring leadership influence in moral exemplarity rather than charismatic projection alone. Conceptual work by Ali (2005), Ahmad (2009), Salleh (2018), Shah (2016), and Beekun and Badawi (2005), previously confined to the descriptive level, is empirically operationalised in the present study, which addresses a long-standing gap in Islamic-leadership theorisation noted by Beekun (2012) and Shah (2016). The model also responds directly to Miller (2018) and Bush and Ng (2019), who call for context-sensitive leadership theory that is not derived from Anglo-American models. The empirical consistency of the influence pattern across two sharply different contexts in Indonesia and Yemen suggests that the prophetic-transformational integration may travel well across Muslim higher-education ecologies and offers an extension of leadership theory rather than an adaptation of it.

Positioning Against the Literature: Agreement, Contradiction, and Extension

On the agreement side, the study supports the central claim of Leithwood et al. (2020) that leadership is one of the most influential institutional drivers of learning, and Hallinger's (2018) thesis on the necessity of contextualising instructional leadership. In the prosodic domain, the findings align with Uchihara, Webb, and Yanagisawa (2019) on repetition effects and Thomson and Derwing (2016) on meaningful input, but the institutional precondition for either of those mechanisms to operate is leadership that constructs the conditions of repeated meaningful exposure. On the contradiction side, the study challenges the assumption embedded in parts of the SLA literature that institutional variables are static background factors and that language acquisition is essentially a cognitive matter. The mediation results show that leadership is not background but an active variable that shapes exposure. The findings also correct a tendency in parts of the educational-management literature to link leadership with aggregate outcomes such as examination scores, without testing its effect on micro-skills such as Arabic speech rhythm acquisition, where the construction of learning conditions is most consequential. On the extension side, the study extends the frameworks of Bush and Ng (2019), Shah (2016), and Hallinger and Kovačević (2019) by operationalising Islamic educational leadership as a prophetic-transformational synthesis tested on a sensitive student-level oral-proficiency outcome. It also extends the Revised Speech Learning Model (Flege & Bohn, 2021) by incorporating institutional leadership as a determinant of exposure quality. The single-site case of Azis and Nasikin (2024) is extended into a cross-country comparative design with an explicit leadership dimension.

Indonesia Versus Yemen: Sociolinguistic Ecology and Exposure Intensity

The country-specific regressions show how leadership operates under different ecological constraints. In the non-native Indonesian context, environment is the dominant predictor (β = 0.58) because the baseline exposure is low; each marginal unit of environment-shaping action by leaders therefore yields a large pay-off. The varieties of Arabic available in Indonesia are largely confined to academic and liturgical fusha, so speech rhythm acquisition develops more slowly without deliberate institutional intervention (Droua-Hamdani et al., 2016; Abu Guba et al., 2023). In the native Yemeni context, leadership and environment exert comparable effects (β = 0.46 vs. 0.43). Under naturalistic exposure, marginal returns to additional exposure diminish, and the quality of leadership in directing competence toward higher academic standards becomes proportionally more important. The third pattern is interactional. Native-speaker interaction is freely available in Yemen but must be deliberately engineered in Indonesia through visiting Arabic lecturers, conversation programmes, and digital media. The contrast is consistent with the cross-contextual SLA framing of Ortega (2019) and the cognitive-acquisition account of Flege and Bohn (2021), Munro and Derwing (2020), and Saito (2019), but its institutional driver is leadership: in both ecologies, the question is which conditions leadership constructs and which conditions it neglects.

The pronunciation-learning literature outside Arabic adds practical texture under the leadership lens. Thomson and Derwing (2016) show that repeated phonemic training with meaningful words is more effective than training with non-words. In Indonesia, leaders can institutionalise this strategy through immersion programmes built on meaningful materials such as recorded sermons, Arabic-language film dialogue, and academic podcasts. Uchihara, Webb, and Yanagisawa (2019) document repetition effects on incidental phonological and prosodic acquisition, a pattern consistent with the dominance of the variable exposure in the present study. Sung (2018) highlights the importance of out-of-class communication for oral competence, a recommendation that translates into Arabic-speaking corners, language-partner programmes, and digital interaction platforms once leadership commits institutional resources to them. In Yemen, exposure is already saturated, but the academic register does not develop automatically; leadership functions as the catalyst for the transition from everyday conversational competence toward higher-level academic competence aligned with international standards.

The cross-contextual differences also read through Social Capital Theory (Putnam, 2000). Social capital accumulated through academic networks, collaborative norms, and stakeholder trust facilitates the exchange of linguistic knowledge and experience, but it does not accumulate spontaneously: educational leaders are the principal agents who mobilise it. In Indonesia, leaders build partnerships with Arab institutions to bring in visiting lecturers and exchange programmes. In Yemen, leaders steer the academic culture so that linguistic competence does not stagnate at the colloquial level but progresses toward academic and scientific registers aligned with international standards. In both contexts, the leadership task is the construction of pedagogical and social capital sufficient to sustain learning that the wider environment does not produce on its own.

CONCLUSION

This study positions Islamic educational leadership as a mechanism through which institutional values are translated into measurable Arabic oral-proficiency outcomes. Prophetic exemplarity and transformational practice, integrated within the same construct,

jointly with the learning environment account for 57.8 percent of the variance in Arabic speech rhythm acquisition, with partial mediation (Sobel z = 4.03) confirming that leadership operates both directly and indirectly through the construction of pedagogical conditions. The contribution to leadership theory is twofold. First, the study extends the transformational tradition of Burns (1978), Bass (1985), Bass and Riggio (2006), and Leithwood and Jantzi (2005) by showing that prophetic exemplarity is not external decoration on a Western model but a constitutive source of leadership legitimacy in Islamic higher education. Second, the study specifies the indirect pathway through which leadership effects materialise not as immediate impact on cognition, but as the construction of an environment within which cognition can develop. This positions the study within the Hallinger (2011, 2018), Robinson (2011), Leithwood et al. (2020), and Bush (2020) tradition while showing that tradition's explanatory reach into a domain where it has not previously been tested. The Arabic oral-proficiency context functions as the empirical proving ground for the model, and speech rhythm acquisition provides the measurable outcome through which the model is tested.

The principal practical implication concerns the role of educational leaders in Islamic higher education. The data argue against an administrative reading of leadership and in favour of an ecosystem-builder reading consistent with Day, Gu, and Sammons (2016), Walker and Hallinger (2015), Marzano, Waters, and McNulty (2005), and Louis et al. (2010). Leaders should be evaluated and supported on their capacity to build conditions that produce learning rather than on the discharge of administrative duties: building exposure-rich Arabic-speaking curricula, mobilising social capital across institutions (Putnam, 2000), developing teacher agency (Bellibaş, Polatcan, & Kılınç, 2022), and modelling the moral and intellectual practice that the institution wants its students to acquire. The study acknowledges three limitations: self-perceived prosodic measurement (Isaacs & Trofimovich, 2017), a cross-sectional design, and a two-site comparison. These point toward future research using Structural Equation Modelling, phonetic and acoustic measurement, the integration of psychological SLA variables such as motivation and self-efficacy, and a longitudinal frame that tracks competence change as institutional leadership evolves. The broader research agenda is clear: Islamic educational leadership is best understood as the principal upstream condition under which Muslim higher-education students develop measurable Arabic oral proficiency, and its proper study lies within educational-leadership research, with speech rhythm acquisition serving as the empirical evidence of how that leadership operates.

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