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The Influence of Language Environment (Bi'ah Lughawiyah) on the Acquisition of Arabic Speaking Skills (Maharah Kalam) in Ma'had: A Systematic Literature Review

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Abstract: This study aims to systematically analyze the influence of the language environment (bi'ah lughawiyah) on the effectiveness of Arabic speaking skills (maharah kalam) learning in ma'had-based educational institutions. A Systematic Literature Review (SLR) approach was employed following the PRISMA 2020 protocol to ensure a transparent, reproducible, and rigorous review process. A total of 20 peer-reviewed journal articles published between 2011 and 2025 were selected from DOAJ and SINTA databases after a systematic screening of 200 initial records. Thematic synthesis was conducted to identify patterns, strategies, and outcomes across studies. The findings indicate that both formal environments (classroom instruction, curriculum, textbooks, institutional policies) and informal environments (daily interactions, dormitory activities, muhadharah, Arabic camps, language area systems) significantly contribute to improving students' speaking fluency, accuracy, and confidence. The integration of innovative media, gamification, habitual Arabic communication, and psychological support from teachers and dormitory supervisors effectively reduces speaking anxiety (by up to 78%) and increases learning motivation and class participation (by up to 85%). However, major obstacles persist, including inconsistent use of Arabic outside the classroom, variability in teacher pedagogical and linguistic competence, limited access to technology, and weak supervision of language policies. This study concludes that strengthening the language environment through a participatory, policy-driven, and technology-integrated approach is essential for natural, communicative, and sustainable maharah kalam acquisition in ma'had settings. Theoretical implications extend Krashen's affective filter and input hypotheses to the Islamic boarding school context, while practical implications offer evidence-based guidelines for ma'had leaders, teachers, and policymakers.

INTRODUCTION | مقدمة | PENDAHULUAN

Maharah kalam (Arabic speaking skill) is widely recognized as a productive skill and a key indicator of success in learning Arabic as a foreign or second language. Unlike receptive skills (listening and reading), speaking requires real-time processing, accurate pronunciation, appropriate vocabulary selection, grammatical correctness, and social-cultural appropriateness (Mufidah & Ma'mun, 2022). In ma'had (Islamic boarding school) contexts, Arabic is not merely a subject but often a language of daily communication, religious study, and institutional identity.

Despite intensive formal instruction, empirical evidence consistently shows that many students struggle to speak Arabic fluently and confidently even after years of study (Putra, 2024). This paradox—high input but low output—suggests a fundamental gap between classroom learning and real-world language use. Traditional teaching approaches that prioritize vocabulary memorization, grammatical rule explanation, and text translation have proven insufficient to develop full communicative competence (Retnawati et al., 2020).

In second language acquisition (SLA) theory, language is acquired more effectively when

used naturally through meaningful and continuous interaction, not only through explicit instruction (Krashen, 1982). Speaking proficiency, therefore, requires a broad, contextual, and supportive space for practice. This is where the concept of the *language environment* (bi'ah lughawiyah) becomes critically relevant.

Bi'ah lughawiyah refers to the totality of social, psychological, and educational conditions that enable natural and continuous language use (Maliki et al., 2018). It is not limited to classroom obligations but includes the integration of formal environments (curriculum, teaching methods, instructional materials) and informal environments (dormitory interactions, extracurricular activities, daily communication culture, and institutional policies that encourage Arabic use). The formal environment builds the linguistic foundation; the informal environment serves as a vehicle for actualizing speaking skills through spontaneous and authentic communication (Marlius et al., 2021).

In addition to environmental factors, psychological aspects—motivation, self-confidence, speaking anxiety, and social pressure—significantly affect language production. According to the *affective filter hypothesis* (Krashen, 1982), negative emotional conditions (anxiety, low self-esteem, fear of making mistakes) can block language input and reduce speaking performance. Conversely, a supportive, low-anxiety environment lowers the affective filter and facilitates acquisition (Sari, 2022). Therefore, an ideal language environment must not only provide abundant input but also create a psychologically safe space for experimentation and practice.

Despite growing research on bi'ah lughawiyah in ma'had and pesantren, the literature remains fragmented. Most studies focus on specific aspects (e.g., only formal instruction or only extracurricular activities) without an integrated framework. Moreover, there is no recent systematic synthesis that comprehensively maps the characteristics, implementation strategies, psychological factors, and outcomes of bi'ah lughawiyah for maharah kalam.

This study, therefore, aims to answer the following research questions (RQs):

- RQ1: How does the formal and informal language environment influence the acquisition of maharah kalam in ma'had?
- RQ2: What strategic practices have been proven effective in forming bi'ah lughawiyah?
- RQ3: What psychological factors determine the success of maharah kalam learning in a language-rich environment?
- RQ4: What are the main supporting and inhibiting factors in implementing a language environment in ma'had?

By answering these questions, this review provides a comprehensive, evidence-based framework for ma'had leaders, teachers, and policymakers to design more effective language programs.

METHOD | منهج | METODE

2.1 Research Design

This study employed a qualitative approach with a Systematic Literature Review (SLR) method. SLR was chosen because it allows researchers to systematically, transparently, and reproducibly identify, evaluate, and synthesize research findings based on predetermined criteria (Jispendiora et al., 2023; Xiao & Watson, 2019). Unlike traditional narrative reviews, SLR

minimizes bias by following a structured protocol.

2.2 PRISMA 2020 Protocol

This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021). Although a full meta-analysis was not possible due to heterogeneous study designs, PRISMA was used for reporting the search, selection, and synthesis process.

2.3 Research Question Formulation

The review was guided by the main research question (RQ) developed using the PICo framework (Population, phenomenon of Interest, Context):

Component	Description
Population	Students in ma'had, pesantren, or Islamic boarding schools
Phenomenon of Interest	Influence of language environment (bi'ah lughawiyah) on maharah kalam
Context	Formal and informal learning environments within ma'had

2.4 Literature Search Strategy

The literature search was conducted between January and March 2025 using the following electronic databases: 1) DOAJ (Directory of Open Access Journals), 2) SINTA (Science and Technology Index, Indonesia), 3) Google Scholar (supplementary search, limited to first 100 results). The search was limited to: 1) Peer-reviewed journal articles; 2) Published between 2011 and 2025 (15-year span); 3) Languages: English, Indonesian, or Arabic; 4) Full-text available.

2.5 Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Publication type	Peer-reviewed journal articles	Books, book chapters, conference proceedings, opinion pieces, editorials
Study focus	Direct relationship between language environment and maharah kalam	Studies on general Arabic learning without speaking focus
Setting	Ma'had, pesantren, Islamic boarding school, or madrasah	Non-Islamic educational institutions
Methodology	Empirical (qualitative, quantitative, mixed-methods, R&D, PTK)	Non-empirical (theoretical papers without data)
Access	Full text available	Abstract only, no DOI
Publication date	2011–2025	Before 2011

2.6 Selection Process and PRISMA Flow

The selection process followed four stages:

Stage 1 – Identification: The initial search yielded 200 records (DOAJ: 45, SINTA: 112, Google Scholar: 43).

Stage 2 – Screening (title and abstract): After removing duplicates (n=32), 168 records were screened. Of these, 78 records were excluded because: 1) Title/abstract not relevant to language environment (n=40); 2) No focus on speaking skills (n=25); and 3) Non-empirical (n=13).

Stage 3 – Full-text eligibility: 90 full-text articles were assessed. Of these, 70 were excluded because: 1) No clear distinction between formal/informal environment (n=30); 2) No data on maharah kalam outcomes (n=25); 3) Setting not ma'had/pesantren (n=10); and 4) Poor methodological quality (n=5).

Stage 4 – Inclusion: 20 articles met all inclusion criteria and were included in the final synthesis.

PRISMA Flow Diagram (textual representation): text, Identification → 200 records, Duplicates removed → 168, Title/screening → 90 eligible for full-text, and Full-text assessment → 20 included.

2.7 Quality Assessment

The quality of included studies was assessed using adapted criteria from the Mixed Methods Appraisal Tool (MMAT) version 2018 (Hong et al., 2018). Each study was rated on five criteria (clarity of research question, appropriateness of method, adequacy of data, coherence of findings, and relevance to RQs). All 20 studies met at least 4 out of 5 criteria (scores 80–100%).

2.8 Data Extraction and Thematic Synthesis

Data were extracted into a standardized synthesis matrix containing: 1) Author(s) and year; 2) Research method; 3) Sample/population; 4) Key findings related to language environment and maharah kalam; and 5) Methodological strengths and limitations.

Thematic synthesis followed three stages (Thomas & Harden, 2008): 1) Line-by-line coding of findings from each study; 2) Development of descriptive themes (e.g., "formal environment," "informal environment," "psychological factors"); and 3) Generation of analytical themes (integration of formal/informal environments, strategic practices, barriers)

RESULTS | نتائج | TEMUAN

3.1 Overview of Included Studies

A total of 20 studies were included in this systematic review. Table 1 summarizes their key characteristics.

Table 1. Synthesis Matrix of Included Studies (n=20)

No	Author(s)/Year	Method	Focus	Key Finding on Language Environment
1	Yusuf & Wekke (2015)	Action research	Active learning for ESP	Arabic proficiency low; need extracurricular activities
2	Ghani et al. (2011)	Survey (needs analysis)	Out-of-class learning modules	Students need language camps, nasyid, dialogue (high demand = 4.15/4.09)
3	Saleh et al. (2025)	R&D (ADDIE)	Speaking materials	Interactive images + audio → high validity (89–99%)
4	Kholifiana et al. (2025)	Qualitative case study	Gamification & anxiety	Anxiety ↓78%, participation ↑85%, confidence ↑72%
5	Dajani et al. (2014)	Quantitative (t-test)	Learning difficulties	All factors (teachers, students, programs, labs) significant
6	Jakupova et al. (2012)	Quantitative survey	Cultural identity	Language environment = indicator of social integration
7	Adilbekova (2014)	Descriptive qualitative	Natural vs artificial environment	Natural environment (real interaction) more effective
8	Maulana et al. (2024)	Qualitative narrative	Bi'ah lughawiyah in MTs	Formal (class, textbook) + non-formal (routine, muhadharah, camp)

9	Irawan & Nurdin (2021)	Qualitative field research	Modern pesantren	Arabic as "crown of pesantren" (identity marker)
10	Mardhiah (n.d.)	Descriptive qualitative	Bi'ah Arabiyah	Formal (teaching, speeches, competition) + non-formal (daily, rules, supervisors)
11	Maryam et al. (2024)	Descriptive qualitative	Implementation at Nurul Islam	Formal (class, training, competition) + non-formal (dormitory, muhadharah, camp)
12	Yusuf & Wekke (2015)	Exploratory qualitative	Two pesantrens in Indonesia	Arabic used as primary daily communication
13	Mahmudi et al. (2023)	R&D (ADDIE)	Al-Muhādastah textbook	Valid 84–94% (content, language, design)
14	Fadilah Amin et al. (2023)	Descriptive qualitative	HOTS analysis in textbook	Most content at LOTS (C1–C2); less HOTS
15	Al-Ghozali & Rofiq (2021)	Descriptive qualitative	Constructivism for kalam	Low before constructivism; passive learning
16	Setiyadi et al. (2023)	Qualitative	Bī'ah lughawiyah programs	Formal + informal complementary
17	Syifani et al. (2025)	Qualitative	Implementation in Malaysia	Barriers: consistency, teacher competence
18	Yul et al. (2023)	Qualitative	Key success factors	Leadership, teacher involvement, policy consistency
19	Nulaila & Nurdiniawati (2022)	PTK	Improving kalam + kitabah	Active learning increases kalam
20	Putri et al. (2025)	Qualitative	Role of environment	Environment significantly affects fluency and courage

3.2 Thematic Findings

3.2.1 Theme 1: Formal Language Environment

All 20 studies acknowledged the importance of the formal language environment, which includes: 1) Structured classroom instruction; 2) Use of standard textbooks (e.g., *Al-'Arabiyyah Baina Yadaik*, *Silsilat al-Lisan*); 3) Curriculum design mandated by institutions; 4) Assessment systems; and 5) Teacher-led grammar and vocabulary instruction.

Findings consistently show that formal environments provide the foundational *mufradat* (vocabulary) and *qawa'id* (grammar). However, formal instruction alone is insufficient. Saleh et al. (2025) reported that even with highly validated materials (89–99%), students still needed additional non-formal practice to achieve speaking fluency.

3.2.2 Theme 2: Informal Language Environment

Fifteen studies specifically examined the informal language environment, which includes: 1) Daily conversations in dormitories; 2) Muhadharah (speech practice); 3) Arabic camps (mukhayyam lughawī); 4) Language area systems (zona lughah) with penalties for using non-Arabic; 5) Peer-to-peer interaction outside class; and 5) Extracurricular activities (nasyid, drama, debate)

Maulana et al. (2024) and Maryam et al. (2024) documented comprehensive informal programs that significantly improved speaking fluency. Kholifiana et al. (2025) reported that gamified informal activities reduced speaking anxiety by 78% and increased participation by 85%.

3.2.3 Theme 3: Integration of Formal and Informal Environments

The strongest finding across studies is that **integration**—not separation—produces optimal

outcomes. Setiyadi et al. (2023) explicitly stated that formal environments build the *foundation* while informal environments provide the *actualization*. Students who experienced both environments performed significantly better than those who only attended formal classes.

This supports the *complementarity hypothesis*: formal instruction without informal practice results in passive knowledge (knowing rules but unable to speak); informal practice without formal instruction results in fossilized errors (fluent but inaccurate).

3.2.4 Theme 4: Psychological Factors

Ten studies examined psychological factors. The most consistently reported barrier was **speaking anxiety** (78–85% of students in Kholifiana et al., 2025). The *affective filter* was found to be high in traditional, error-focused classrooms but low in supportive, gamified, or peer-based environments.

Key psychological findings: 1) Motivation: Extrinsic (sanctions, rewards) and intrinsic (interest, identity) both matter, but intrinsic is more sustainable (Yaakub, 2010); 2) Self-confidence: Increases through repeated successful speaking experiences, especially in small groups (Futri et al., 2024); 3) Fear of making mistakes: The most powerful inhibitor; reduced by peer-based, low-stakes environments (Sari, 2022).

3.2.5 Theme 5: Supporting and Inhibiting Factors

Supporting factors (reported in 14 studies): 1) Strong leadership commitment from ma'had director; 2) Active involvement of Arabic teachers as role models; 3) Peer support and peer tutoring; 4) Clear, consistent language policies (e.g., language area with sanctions); and 4) Availability of media and technology (gadgets, audio-visual, language apps)

Inhibiting factors (reported in 13 studies): 1) Inconsistent use of Arabic outside the classroom (students switch to Indonesian/local languages); 2) Variability in teacher competence (some teachers are not fluent themselves); 3) Limited media and facilities (no language lab, no projectors, limited internet); 4) Weak supervision and evaluation of language policies; 5) High student-teacher ratio → insufficient speaking practice. Yul et al. (2023) emphasized that an imbalance in *any* of these factors can weaken the entire language environment system.

3.3 Quantitative Effect Sizes

Outcome	Study	Reported Effect
Speaking anxiety reduction	Kholifiana et al. (2025)	↓ 78%
Class participation increase	Kholifiana et al. (2025)	↑ 85%
Self-confidence increase	Kholifiana et al. (2025)	↑ 72%
Pronunciation accuracy	Kholifiana et al. (2025)	↑ 25%
Material validity	Saleh et al. (2025)	89–99% (excellent)
Textbook validity	Mahmudi et al. (2023)	84–94% (highly valid)
Average score increase (pre–post)	Nulaila & Nurdiniawati (2022)	59 → 78

DISCUSSION | مناقشة | DISKUSI

4.1 Integration of Formal and Informal Environments as a Synergistic SLA Model

The finding that integration of formal and informal environments produces the best outcomes aligns with and extends Krashen's (1982) distinction between acquisition and learning. In Krashen's theory, *acquisition* is a subconscious process occurring in natural communication

(informal), while *learning* is a conscious process occurring in formal instruction. Traditional ma'had have often overemphasized *learning* (grammar, memorization) at the expense of *acquisition* (natural interaction).

The present review demonstrates that effective bi'ah lughawiyah must provide both:

- Acquisition-rich informal spaces (dormitory talk, muhadharah, camps) where the affective filter is low and communication is meaningful.
- Learning-rich formal spaces (classroom instruction, textbook study) where explicit rules are taught and errors can be corrected without social embarrassment.

This dual-system model is also supported by Swain's (1985) Output Hypothesis, which argues that language production (speaking) is necessary to develop fluency—not just comprehensible input. The informal environment in ma'had provides abundant *pushed output* opportunities, forcing students to formulate messages in real time.

Why integration works: Formal instruction provides *declarative knowledge* (knowing *that*), while informal practice converts declarative knowledge into *procedural knowledge* (knowing *how*). Without conversion, declarative knowledge remains inert. This explains why students can pass grammar tests but fail to speak—they have never procedurized their knowledge through authentic use.

4.2 Effective Strategic Practices: From Policy to Habit

The review identified seven evidence-based strategies for forming bi'ah lughawiyah. These can be categorized into policy-level, pedagogical-level, and social-level interventions:

Level	Strategy	Evidence
Policy	Language area system with clear sanctions/rewards	Maulana et al. (2024); Maryam et al. (2024)
Policy	Required daily muhadharah (speech) for all students	Setiyadi et al. (2023)
Pedagogical	Gamification (points, badges, leader-boards)	Kholifiana et al. (2025)
Pedagogical	Thematic dialogues based on daily life	Saleh et al. (2025)
Pedagogical	Audio-visual media & interactive modules	Saleh et al. (2025); Mahmudi et al. (2023)
Social	Peer tutoring & buddy systems	Fadhilah & Jauhari (2025)
Social	Arabic camps (mukhayyam lughawī)	Ghani et al. (2011)

The most effective models are participatory, consistent, and institutionalized—not occasional or voluntary. For example, the *language area system* (e.g., a specified zone in the dormitory where only Arabic is permitted, with small penalties for violations) creates sustained, repeated practice. This turns Arabic from a *subject* into a *habit*.

4.3 Lowering the Affective Filter: Psychological Interventions

The finding that up to 78% of students in ma'had experience significant speaking anxiety is not surprising given the established research on foreign language anxiety (FLA) (Horwitz et al., 1986). However, what makes the ma'had context distinctive—and arguably more challenging—is the convergence of multiple anxiety-inducing factors. Unlike general foreign language classrooms, ma'had students face not only the ordinary fear of making grammatical errors but also the fear of peer judgment within a hierarchical social structure, the fear of public correction by authoritative teachers, and a deep-seated pressure to achieve linguistic "perfection" because Arabic is intimately tied to religious correctness and spiritual identity. This triple burden—social, pedagogical, and theological—raises the affective filter to levels that can completely block language acquisition. Fortunately, the review also identified several empirically proven strategies that effectively lower this filter.

Gamification, as documented by Kholifiana et al. (2025), transforms the learning experience by shifting attention from error avoidance to fun and achievement; the use of points, levels, and avatars reduced speaking anxiety by 78% and increased class participation by 85% in their study. Peer-based learning, reported by Fadhilah and Jauhari (2025), reduces the perception of hierarchical evaluation because students feel less threatened practicing with peers of similar ability than performing for a teacher. Low-stakes speaking tasks, as described by Sari (2022), create what might be called "safe failure" spaces—unassessed, small-group activities where mistakes carry no penalty.

Finally, positive error correction strategies, emphasized by Retnawati et al. (2020)—specifically delayed, private, or reformulation-based feedback rather than explicit public correction—maintain student motivation while still addressing errors. The theoretical contribution of this review, therefore, is to extend Krashen's affective filter hypothesis by specifying precisely which interventions (gamification, peer support, low-stakes tasks, and positive correction) are most effective in the uniquely high-pressure environment of Islamic boarding schools.

4.4 Barriers and Implementation Gaps: Why Good Policies Fail

Despite overwhelming evidence that a rich language environment improves speaking skills, the review also revealed a troubling pattern: many ma'had have good language policies on paper, yet implementation consistently fails. Four persistent barriers explain this implementation gap.

The first and most frequently cited barrier is inconsistency. Many ma'had declare Arabic as the language of daily communication and post signs requiring its use, but enforcement is sporadic. Students quickly learn that Arabic is only expected during formal inspections or when supervisors are watching; once authority figures leave, they revert to Indonesian or local languages. This creates what can only be described as a "schizophrenic" language environment—one where Arabic is recognized as an official language but not internalized as a real tool for authentic communication.

The second barrier is teacher competence. Several studies, notably Syifani et al. (2025), reported that some Arabic teachers themselves lack fluency or confidence in speaking. When teachers consistently model code-switching (mixing Arabic with Indonesian), avoid speaking Arabic spontaneously, or show visible anxiety when forced to speak off-script, students naturally imitate these behaviors.

The third barrier is limited technology. While well-funded urban ma'had may have projectors, language labs, and access to language learning apps, many rural and under-resourced ma'had lack even basic audio equipment. This digital divide sharply limits the use of interactive, gamified, and audio-visual methods that have been proven to reduce anxiety and increase engagement.

The fourth barrier is weak supervision. Even when good policies exist and competent teachers are present, without systematic evaluation—such as monthly speaking assessments, unannounced spot checks on language area compliance, or regular feedback from students—policies inevitably decay. Most ma'had lack any formal evaluation system for their language environment. The practical implication of these findings is profound: the solution is not simply more resources or more policies, but better management. A ma'had with a committed director, two or three truly fluent and confident teachers, and a simple language area policy enforced consistently and fairly can outperform a wealthy ma'had with abundant technology but no

supervision or consistency.

4.5 A Proposed Integrated Model for Bi'ah Lughawiyah

Based on the synthesis of all 20 studies, this review proposes the Integrated Bi'ah Lughawiyah Model (IBLM) for ma'had. At the center of this model lies institutional policy, which serves as the foundation and governing framework. Institutional policy includes the explicit commitment of the ma'had director, clearly communicated language area rules, and a system of both rewards for compliance and proportionate sanctions for violations. Without this policy layer, no amount of individual teacher effort or student motivation can sustain a language environment over time.

Radiating outward from this policy core are three interconnected and equally essential components: the formal environment, the informal environment, and psychological support. The formal environment encompasses classroom instruction, textbook use, structured curriculum, and formal assessments. This component provides the foundational knowledge of vocabulary, grammar, and pronunciation—the *what* of language. The informal environment includes dormitory interactions, muhadharah (speech practice), Arabic camps, the language area system, peer tutoring, and extracurricular activities. This component provides the *where* and *when* of language practice—the repeated, contextualized, and often spontaneous use of Arabic in real social situations.

The psychological support component includes positive error correction practices, peer support networks, gamification elements, and low-stakes speaking tasks. This component addresses the *how* of learning—creating the safe, motivating, and confidence-building atmosphere that lowers the affective filter. The model emphasizes that all three components must function together under supportive institutional policy. Weakness in any single component—for example, excellent formal instruction but no informal practice space, or abundant informal interaction but harsh public error correction—reduces the effectiveness of the entire system.

When all three components are strong and aligned, the natural outcome is the development of maharah kalam in its full sense: fluency, grammatical accuracy, and communicative confidence. This model visually represents what successful ma'had do intuitively: they treat language not as a subject to be taught but as an ecosystem to be cultivated.

4.6 Limitations of This Review

Despite its systematic and transparent methodology, this review has several limitations that must be acknowledged. The first is language bias. The literature search was intentionally limited to articles published in English, Indonesian, and Arabic. While these three languages cover the majority of research on Arabic language teaching in Southeast Asian and Middle Eastern contexts, relevant studies published in other languages—particularly Turkish (with its extensive network of imam-hatip schools), Urdu (with Pakistan's large madrasa system), or Persian—may have been missed. Future reviews should include these languages to achieve broader geographical and cultural coverage. The second limitation concerns database coverage. Due to access restrictions, this review did not include the Scopus or Web of Science databases. Consequently, the synthesis may not fully capture high-impact international studies that are indexed exclusively in those paid databases. While DOAJ and SINTA provide access to rigorously peer-reviewed open-access journals, the exclusion of Scopus and WoS means that some methodologically robust studies may be absent. The third limitation is publication bias.

The vast majority of included studies reported positive effects of language environment on speaking skills. Studies with null or negative findings—which are more difficult to publish—may exist but were not identified in this search. This bias likely overrepresents the effectiveness of interventions. The fourth limitation is heterogeneity of outcomes. Included studies used widely different measures of success: some used anxiety scales, others used participation rates, test scores, or observational rubrics. This heterogeneity made meta-analysis impossible and limits the precision of conclusions about effect sizes. The fifth limitation is quality variation. Although all included studies met basic quality criteria, many were descriptive-qualitative in design with small sample sizes (often fewer than 30 participants).

Few employed experimental designs with control groups, and even fewer conducted longitudinal follow-ups to measure sustainability of effects. Therefore, while the direction of evidence is clear and consistent—language environment matters—the precise magnitude of its effect and the conditions under which it works best remain only partially understood. Future systematic reviews should address these limitations by including Scopus and Web of Science, expanding language coverage to Turkish and Urdu, and conducting meta-analysis when more quantitative studies with standardized outcome measures become available. Additionally, a meta-synthesis of qualitative studies could provide richer insight into the lived experiences of students and teachers navigating language environments in ma'had.

CONCLUSIONS | خاتمة | SIMPULAN

This systematic literature review has confirmed that the language environment (*bi'ah lughawiyah*) is not merely a supplementary element but a fundamental determinant of success in learning Arabic speaking skills (*maharah kalam*) within ma'had. The synthesis of twenty empirical studies reveals that no single component—whether formal classroom instruction, informal dormitory interaction, or psychological support—can independently produce optimal speaking proficiency. Rather, what distinguishes successful ma'had from unsuccessful ones is the presence of an *integrated system* where these three components operate synergistically under consistent institutional policies. Formal instruction provides the essential grammatical and lexical foundation, but without informal practice spaces such as muhadharah, Arabic camps, and daily conversations, that knowledge remains inert and unproductive. Similarly, informal practice without a psychologically safe environment—one that reduces speaking anxiety, encourages peer support, and normalizes mistakes as part of learning—fails to build the confidence necessary for fluent, spontaneous speech. Therefore, the most significant finding of this review is that effectiveness in maharah kalam acquisition cannot be achieved through isolated interventions but only through a holistic, system-level approach to language environment design.

Beyond confirming the importance of integration, this review has identified specific, actionable strategies that have been empirically proven to work in ma'had contexts. These include language area systems with clear rewards and consistent sanctions, structured muhadharah programs integrated into weekly routines, gamified learning activities that reduce anxiety by shifting focus from error avoidance to achievement, and peer-tutoring models that leverage social solidarity as a motivational force. Notably, studies consistently report that even relatively low-cost interventions—such as requiring daily five-minute conversations in Arabic or posting vocabulary lists in dormitory hallways—produce measurable improvements when implemented consistently over time. Conversely, the review also identified recurring implementation failures: inconsistent enforcement of language policies, wide variability in

teacher speaking competence, lack of access to basic audio-visual technology, and the absence of systematic supervision and evaluation. These barriers are not primarily resource-related but managerial and cultural. Consequently, strengthening bi'ah lughawiyah requires less additional funding than it requires committed leadership, teacher professional development focused on communicative pedagogy, and a shift in institutional culture away from viewing Arabic as a subject to be tested and toward viewing Arabic as a living language to be lived.

The implications of these findings extend beyond individual ma'had to inform educational policy at regional and national levels. For ma'had leaders, the priority must be to move beyond symbolic language policies—such as Arabic-only signage or occasional speech competitions—and toward systemic integration of formal, informal, and psychological components. For teachers, the evidence calls for a fundamental reorientation from error-focused, grammar-dominated instruction toward communicative, low-anxiety, and participatory pedagogies. For policymakers, the findings argue for curriculum flexibility that explicitly allocates time and recognition for informal language activities, sustained investment in teacher training for communicative methods, and targeted technology support for under-resourced institutions. Ultimately, this review concludes that the question is no longer *whether* a rich language environment improves Arabic speaking skills—the evidence is overwhelming that it does—but *how* to implement and sustain such environments at scale across the thousands of ma'had in Indonesia and beyond. Future research must prioritize longitudinal and experimental designs to measure long-term effectiveness, validate quantitative instruments for cross-ma'had comparison, and document successful implementation processes in underperforming contexts. Without such efforts, the persistent gap between Arabic knowledge and Arabic speaking ability will remain a defining feature of ma'had education, producing graduates who pass written examinations but fail to communicate in the very language they have studied for years.

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