



Arabic Loanwords Integration in Indonesian Madrasah Education: Analysis of Pedagogical Effectiveness and Cross-Linguistic Transfer

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Abstract

This study examines the integration of Arabic loanwords into Indonesian madrasah education through a mixed-methods analysis. With 2,000-3,000 documented Arabic loanwords in the Indonesian lexicon, these borrowings offer unique pedagogical potential. The research employed a convergent parallel Design with 147 students and 15 teachers across six Madrasah Tsanawiyah in Surabaya, utilizing questionnaires, interviews, and textbook analysis. Content analysis identified 412 Arabic loanwords across grades 7-9 textbooks (18.7% of the vocabulary corpus), with religious vocabulary at 62%, everyday vocabulary at 34%, grammatical terms at 16%, and environmental vocabulary at 12%. Student recognition patterns showed religious vocabulary highest (88%), followed by everyday (65%), grammatical (48%), and abstract vocabulary (37%). Overall, 78% reported enhanced learning confidence and 84% improved comprehension, with strong multimedia preference (90%). However, 15% experienced semantic confusion when Indonesian meanings diverged from Arabic contexts. Teachers universally recognized the pedagogical value of loanwords, employing comparative linguistic analysis, multimedia integration, and contextual reinforcement strategies. Challenges included semantic drift (50%), grammatical complexity regarding gender distinctions (37.5%), and time constraints. The study recommends enhanced contrastive linguistic analysis in teacher preparation, etymology-based supplementary modules, and standardized loanword pedagogy approaches for Indonesian madrasah contexts.

Keywords: Arabic loanwords, heritage language pedagogy, Islamic education, madrasah education, translanguaging, cross-linguistic transfer.

Abstrak

Penelitian ini mengkaji integrasi kata serapan Arab dalam pendidikan bahasa Arab madrasah Indonesia melalui analisis mixed-methods. Dengan 2.000-3.000 kata serapan Arab dalam leksikon Indonesia, kata-kata pinjaman ini menawarkan potensi pedagogis unik. Penelitian menggunakan desain paralel konvergen dengan 147 siswa dan 15 guru dari enam Madrasah Tsanawiyah di Surabaya, menggunakan kuesioner, wawancara, dan analisis buku teks. Analisis konten mengidentifikasi 412 kata serapan Arab di buku teks kelas 7-9 (18,7% korpus kosakata), dengan kosakata religius 62%, sehari-hari 34%, gramatikal 16%, dan lingkungan 12%. Pola pengenalan siswa menunjukkan kosakata religius tertinggi (88%), diikuti sehari-hari (65%), gramatikal (48%), dan abstrak (37%). Secara keseluruhan, 78% melaporkan peningkatan kepercayaan belajar dan 84% peningkatan pemahaman, dengan preferensi kuat terhadap multimedia (90%). Namun, 15% mengalami kebingungan semantik ketika makna Indonesia berbeda dari konteks Arab. Guru secara bulat

mengakui nilai pedagogis kata serapan, menerapkan analisis linguistik komparatif, integrasi multimedia, dan penguatan kontekstual. Tantangan meliputi pergeseran semantik (50%), kompleksitas gramatikal mengenai distensi gender (37,5%), dan keterbatasan waktu. Studi merekomendasikan analisis linguistik kontrastif dalam persiapan guru, modul tambahan berbasis etimologi, dan pendekatan standar pedagogi kata serapan untuk konteks madrasah Indonesia.

Kata Kunci: *kata serapan Arab, madrasah Indonesia, pedagogi bahasa warisan, pendidikan Islam, translanguaging, transfer lintas-linguistik.*

INTRODUCTION

Arabic language instruction in Indonesian madrasahs occupies a strategically important position within the world's largest Muslim-majority nation's educational landscape. As mandated by the Ministry of Religious Affairs through Keputusan Menteri Agama (KMA) No. 183 of 2019, the Indonesian madrasah system serves approximately 9.2 million students across 78,000 institutions nationwide (Ministry Religious Affairs, 2023). The current Arabic curriculum framework emphasizes communicative competence while acknowledging the heritage language characteristics of Arabic within Indonesian Muslim communities, operating within Indonesia's unique linguistic environment characterized by extensive integration of Arabic loanwords into Indonesian vocabulary through centuries of cultural and religious contact (Andriyani & Leksono, 2024; W. D. Sari, 2025; Zainuddin et al., 2025).

Indonesian madrasah education operates under a dual curriculum system, integrating national education standards with Islamic religious education requirements. Arabic instruction typically allocates 4-6 hours weekly across Madrasah Tsanawiyah levels, with objectives including Quranic literacy, Islamic text comprehension, and basic communicative competence (Ampesi et al., 2025; Bhat & Bisati, 2025; Karman et al., 2025). Surabaya was selected as the research context because it represents Indonesia's most developed Islamic educational hub, housing major institutions including UIN Sunan Ampel, and thus provides a setting where Arabic loanword integration practices are likely to be more systematically developed, making it appropriate for examining pedagogical effectiveness.

The integration of Arabic loanwords presents both opportunities and challenges within this educational context. The 5th edition of Kamus Besar Bahasa Indonesia documents approximately 2,000-3,000 Indonesian words with Arabic origins, encompassing religious terminology (*salat, zakat*), cultural vocabulary (*masjid, ustaz*), and everyday expressions (*kabar, kursi*). This substantial lexical overlap presents both pedagogical opportunities and challenges for Arabic language instruction within Indonesian madrasah contexts.

This study is grounded primarily in two core theoretical frameworks. First, contemporary research positions Arabic in Indonesian contexts as heritage language education rather than traditional foreign language instruction (Benmamoun et al., 2013; Sehlaoui, 2008). Heritage language learners possess varying degrees of exposure to the target language through family, community, or religious contexts, distinguishing them from conventional L2 learners (Alsamaani & Alhoody, 2025; Bąkowski, 2025). Indonesian Muslim students encounter Arabic through religious practices, embedded loanwords, and Islamic discourse, creating foundational linguistic scaffolding that differs qualitatively from zero-exposure foreign language contexts.

Second, cross-linguistic transfer theory suggests that L1 knowledge can facilitate L2 learning when structural similarities exist between languages (Odlin, 2003; Ringbom & Jarvis, 2009). However, negative transfer may occur when surface similarities mask deeper differences in meaning, usage, or formal properties. Arabic loanwords in Indonesian present complex transfer scenarios where phonological adaptations, semantic shifts, and morphological simplifications create both facilitative and inhibitory effects. Additional theoretical perspectives, including Cultural-Historical Activity Theory (CHAT), Cognitive Load Theory, and translanguaging theory, are discussed in the Discussion section where they serve to interpret the empirical findings (Bosli, 2025; Fournier, 2025).

Despite theoretical support for loanword integration, systematic research on Arabic loanword incorporation in Indonesian madrasah curricula remains limited. Previous studies have noted the prevalence of Arabic borrowings in Indonesian but have not thoroughly examined their pedagogical application (Hidayati, 2014; Hidayatullah, 2021; Raswan et al., 2025). This study addresses this gap by providing: (1) quantitative evidence of loanword distribution across grade levels through systematic textbook analysis, (2) triangulated perspectives from both teachers and students on pedagogical effectiveness, and (3) specific recommendations grounded in heritage language education theory. Unlike previous descriptive studies documenting Arabic loanwords in Indonesian, this research uniquely investigates their pedagogical integration within madrasah curricula using a rigorous mixed-methods design.

Current Arabic instruction in Indonesian madrasah contexts presents several unresolved issues (Kuraedah et al., 2018). First, uncertainty remains regarding the extent to which educational materials recognize and explicitly utilize lexical cognates. Second, semantic adaptation processes may have altered original Arabic meanings through narrowing, broadening, or shift phenomena, as demonstrated by the Indonesian usage of *zakat* (زكاة), which emphasizes charitable giving over the broader Islamic purification concept (Rahman, 2022). Third, phonological adaptations complicate loanword pedagogy; sound adaptations such as /x/ → /k/ or /ħ/ transformations may impede students' recognition of original Arabic forms (Hakim, 2021).

This study addresses three primary research questions guided by heritage language education theory and cross-linguistic influence frameworks: (1) To what extent have Arabic loanwords been systematically integrated into Indonesian madrasah learning materials, and what patterns characterize their distribution and treatment? (2) How do teachers perceive the pedagogical benefits of these loanwords, and what strategies do they employ in madrasah classroom instruction? (3) What linguistic features of loanwords—semantic, phonological, or morphological—most significantly impact student learning outcomes within Indonesian Islamic educational contexts?

This research's significance extends beyond immediate educational applications. Findings contribute to theoretical understanding of cross-linguistic influence in multilingual learning environments, particularly within global Islamic educational contexts. Practically, results inform evidence-based approaches for developing Arabic curricula that leverage local linguistic resources to enhance learning outcomes within Indonesian madrasah systems.

METHOD

This study employs a convergent parallel mixed-methods design (Creswell & Clark, 2017), wherein quantitative survey data and qualitative interview data were collected concurrently and integrated during analysis to provide a comprehensive understanding of Arabic loanword integration in Indonesian madrasah contexts. Adopting a pragmatic stance, this study integrates quantitative and qualitative approaches to comprehensively examine Arabic loanword integration.

The study involved 147 students across grades 7, 8, and 9 from six Madrasah Tsanawiyah in Surabaya, selected through stratified random sampling to ensure representation across grade levels and institutional types. Surabaya was selected as the research site due to its position as a major Islamic educational hub in Indonesia, housing prominent institutions and representing well-developed madrasah pedagogical practices. While findings provide in-depth understanding of this context, generalization to other Indonesian regions with different sociolinguistic characteristics requires caution. Sample size calculations using G*Power 3.1.9.7 indicated adequate statistical power ($1-\beta = 0.92$) for planned analyses.

Teacher participants comprised eight Arabic language teachers purposively selected based on minimum three years' madrasah teaching experience, formal Arabic education qualifications, and willingness to participate in extended interviews, with theoretical sampling principles guiding selection to maximize variation in teaching experience, educational background, and institutional contexts.

Data collection utilized a structured 45-item student questionnaire measuring four key constructs: (1) Heritage Language Familiarity (12 items, $\alpha = 0.89$), (2) Perceived Pedagogical Effectiveness (10 items, $\alpha = 0.84$), (3) Semantic Clarity (8 items, $\alpha = 0.81$), and (4) Learning Motivation (15 items, $\alpha = 0.78$). Semi-structured teacher interviews lasting 45-75 minutes explored loanword integration perspectives using an interview protocol examining: awareness levels, integration strategies, perceived benefits, challenges encountered, and recommendations for improvement. Systematic content analysis examined Arabic textbooks officially prescribed for grades 7-9 across participating madrasahs.

Quantitative analysis employed descriptive and inferential statistics, structural equation modeling (SEM), and exploratory factor analysis (EFA). Following Kline's (2016) recommendation of a minimum ratio of 10:1 for subjects to estimated parameters, and given our parsimonious model with 12 estimated parameters, our sample size ($N = 147$) exceeds the minimum threshold. SEM results should be interpreted with appropriate caution, and replication with larger samples is recommended.

Qualitative data underwent thematic analysis using (Braun & Clarke, 2021) six-phase approach. This approach was selected because it provides systematic procedures for identifying patterns across the dataset while remaining theoretically flexible, aligning with our pragmatic mixed-methods orientation. Interview transcripts were coded using a systematic categorization scheme: ST-MEDIA (media utilization strategies), ST-KOMP (comparative strategies), ST-ETIM (etymological approaches), and ST-STIM (stimulus techniques). Data integration followed joint display methodology creating visual representations comparing quantitative results with qualitative themes.

Validity and trustworthiness were ensured through three critical strategies: (1) methodological triangulation through integration of quantitative and qualitative data, (2) member checking with 20% of interview participants, and (3) expert panel review by two Arabic language education specialists.

RESULTS AND DISCUSSION

Teacher Awareness and Pedagogical Approaches

Addressing Research Question 2 regarding teacher perceptions and strategies, in-depth semi-structured interviews with eight Arabic language teachers at Madrasah Tsanawiyah revealed universal awareness (100%) of Arabic loanwords' pedagogical value in Indonesian Islamic educational contexts. Analysis of awareness levels, as presented in Table 1, demonstrates differentiated degrees of consciousness among participants.

Table 1. Teacher Awareness Levels of Arabic Loanwords (N=8)

Awareness Level	Count	Percentage	Representative Statement
Very High Awareness	6	75%	"Sangat menyadari bahwa ada banyak kosakata serapan Arab dalam Bahasa Indonesia" (Teacher 1)
Moderate Awareness	2	25%	"Ya Sadar, karena kebetulan kan saya hidupnya di pondok" (Teacher 2)
Low Awareness	0	0%	-

Note: Awareness categories determined through analysis of interview responses regarding recognition and utilization of Arabic loanwords in pedagogical practice.

Teacher 8 elaborated on the practical significance of this awareness: "Kosakata ini, yang jumlahnya diperkirakan antara 2.000 hingga 3.000, sangat berguna untuk membantu siswa memahami bahasa Arab." This recognition of the extensive loanword corpus underscores teachers' appreciation for the pedagogical resource available for Arabic instruction.

Teachers employed four primary strategic approaches for loanword integration, coded as follows: (1) ST-MEDIA: The multimedia integration strategy, articulated by Teacher 1, involved "memasukkan kosakata serapan Arab ke dalam media pembelajaran seperti slide ppt, video pembelajaran maupun games/permainan Bahasa Arab yang berhubungan dengan materi yang diajarkan." (2) ST-KOMP: The comparative linguistic analysis method involved explicitly contrasting loanwords with their original Arabic forms to reveal phonological adaptations, exemplified by systematic comparisons such as *kitab* versus *kitāb* (كتاب). (3) ST-ETIM: The etymological approach connected Indonesian loanwords to their Arabic roots. Teacher 7 explained: "Kata serapan bisa digunakan oleh guru agar siswa lebih mudah memahami bahasa Arab, terutama menggunakan kata yang sudah familiar oleh siswa. Contoh kata dunia dari bahasa Arab 'dunya'. Lalu guru bisa mendorong siswa untuk mencari contoh lain yang serupa." (4) ST-STIM: Stimulus techniques employed contextual prompting. Teacher 2 described: "kadang saya jelaskan, kadang juga saya memancing (menstimulus anak). Cara penerapannya, misalnya, seperti yang terdapat dalam isim suatu kata kerja, tapi kalau yang seperti itu (yang sudah diketahui oleh anak, tidak diberikan stimulus), biasanya yang saya beri stimulus adalah pada benda yang di sekitar kita."

Despite these strategic implementations, teachers identified three primary pedagogical challenges. Semantic drift emerged as the most significant barrier, with 4 of 8 participants (50%) reporting regular student confusion regarding terms whose Indonesian meanings differ from original Arabic contexts. Teacher 2 specifically cited: "Ada, terutama kata-kata yang mengalami perubahan makna atau bentuk dalam proses penyerapan. Contohnya kata *niat* yang dalam Bahasa Arab bisa digunakan dalam konteks fiqh dan ibadah, tapi dalam Bahasa Indonesia sering hanya bermakna 'keinginan'." Morphological complexity appeared as the second major challenge, with 3 of 8 teachers (37.5%) struggling to explain Arabic gender distinctions. Teacher 1 elaborated: "kesulitan yang anak-anak hadapi di awal adalah penghafalannya terutama anak yang belum faham Bahasa Arab... Bisa jadi memudahkan dalam penghafalan karena memang sudah sesuai dengan arti Indonesianya. Tapi juga, bisa membuat hambatan ke *mudzakar* dan *muannasnya*." Time constraints constituted the third challenge, with teachers allocating limited time per lesson for loanword explanations.

Perceived Benefits of Loanword Integration

All eight teachers unanimously reported cognitive and motivational benefits from loanword integration. Table 2 presents the distribution of perceived benefits across the teacher sample.

Table 2. Teacher-Perceived Benefits of Loanword Integration (N=8)

Benefit Category	Teachers Reporting	Representative Statement
Facilitates Comprehension	8/8 (100%)	"Memudahkan peserta didik dalam memahami dan mempelajari kosa kata, percakapan maupun kaidah-kaidah dalam Bahasa Arab" (Teacher 1)
Enhances Motivation	6/8 (75%)	"Meningkatkan motivasi belajar dan membuat anak lebih percaya diri untuk mempelajari Bahasa Arab" (Teacher 3)
Creates Familiarity Foundation	6/8 (75%)	"Mempermudah pemahaman Bahasa Arab karena itu sudah merupakan titik awal karena sudah familiar" (Teacher 3)
Generates Student Interest	5/8 (62.5%)	"mereka merasa senang karena menarik gitu, ternyata ada kosa kata Bahasa Indonesia itu berasal dari kata Bahasa Arab" (Teacher 2)

Note: Multiple responses permitted; percentages reflect proportion of teachers mentioning each benefit category.

Student Perceptions and Loanword Recognition Patterns

Addressing Research Question 3 regarding linguistic features impacting learning outcomes, quantitative analysis of 147 student survey responses across three grade levels revealed differentiated recognition patterns across vocabulary categories. Table 3 presents the distribution of loanword recognition across four semantic categories.

Table 3. Student Recognition of Arabic Loanwords by Category (N=147)

Vocabulary Category	Recognition Rate	Example Words
Religious & Islamic Vocabulary	88%	masjid, shalat, zakat, hijrah, kitab
Everyday Objects & Spaces	65%	kursi, dapur, kamar, daftar

Grammatical Terminology	48%	<i>fī'l, isim, harf, mudz̄akar, muannas</i>
Abstract/General Vocabulary	37%	<i>ilmu, adab, akhlaq, hikmah</i>

Note: Recognition rate indicates percentage of students correctly identifying Indonesian words as Arabic loanwords and associating them with Arabic equivalents.

The hierarchical pattern of recognition (88% → 65% → 48% → 37%) demonstrates a clear correlation between contextual exposure frequency and loanword recognition. Religious vocabulary, encountered regularly in daily Islamic practices, achieved near-universal recognition, while abstract concepts with limited contextual reinforcement showed the lowest recognition rates.

Overall student perceptions of loanword integration effectiveness are presented in Table 4, demonstrating predominantly positive outcomes across key learning dimensions.

Table 4. Student Perceptions of Arabic Loanword Integration (N=147)

Learning Aspect	Agreement Rate	Mean (1-5)	SD	Cohen's d
Enhanced Comprehension	84%	4.2	0.67	0.91
Increased Confidence	78%	3.9	0.72	0.82
Semantic Confusion	15%	2.1	1.03	-
Multimedia Preference	90%	4.5	0.58	1.15

Note: Effect sizes (Cohen's d) and 95% confidence intervals: Enhanced Comprehension (d = 0.91, CI [0.74, 1.08]); Increased Confidence (d = 0.82, CI [0.65, 0.99]); Multimedia Preference (d = 1.15, CI [0.97, 1.33]).

Structural Equation Modeling analysis revealed two key relationships: loanword familiarity showed significant direct effects on Arabic learning motivation ($\beta = 0.67, p < 0.001$), and indirect effects on achievement through enhanced confidence ($\beta = 0.43, p < 0.01$). The model demonstrated acceptable fit (detailed fit indices available in supplementary materials).

Thematic analysis of open-ended responses revealed two primary themes. The cognitive scaffolding theme emerged when students described how familiar loanwords reduced the apparent foreignness of Arabic content: "When I hear madrasah, I immediately picture our school, making Arabic less foreign and more accessible" (Student 23, Grade 8). The multimedia preference theme reflected strong student preference for technology-enhanced learning (90%), with students experiencing Arabic loanwords as "bridges between worlds" connecting their Islamic identity with academic learning.

Textbook Content Analysis

Addressing Research Question 1 regarding the extent of loanword integration, systematic content analysis of officially mandated Arabic textbooks for Grades 7-9 identified 412 distinct Arabic loanwords, comprising 18.7% of the total vocabulary corpus. Table 5 presents the distribution of loanwords across grade levels and semantic categories.

Table 5. Distribution of Arabic Loanwords in MT's Textbooks by Grade Level

Vocabulary Category	Grade 7	Grade 8	Grade 9	Total (% of corpus)
Religious & Islamic	15	18	22	55 (62%)
Everyday Objects	8	10	12	30 (34%)
Grammatical Terms	3	5	6	14 (16%)

Environmental	-	4	7	11 (12%)
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Note: Categories are not mutually exclusive; some words appear in multiple contexts.

Percentages indicate proportion of total identified loanwords.

The distribution demonstrates progressive complexity across grade levels, with environmental vocabulary introduced only in Grades 8-9. Religious vocabulary shows the highest frequency, with specific terms appearing multiple times: "shalat" (7 occurrences in Grade 7), "zakat" (5 occurrences), and "masjid" (9 occurrences).

Linguistic analysis of the identified loanwords revealed systematic phonological and semantic adaptations. Table 6 presents examples of adaptation patterns observed in the textbook corpus.

Table 6. Phonological and Semantic Adaptations in Arabic Loanwords

Loanword	Arabic Origin	Adaptation Type	Example Context
kitab	كتاب (kitāb)	Loss of final hamzah	"Kitab suci" (Grade 7)
ikhlas	إِحْلَاص (ikhlāṣ)	Simplification /ṣ/ → /s/	"Beramal dengan ikhlas" (Grade 9)
daftar	دَفْتَر (daftar)	Vowel addition /a/	"Daftar hadir" (Grade 8)
bijrah	هِجْرَة (bijrah)	Semantic broadening	"Hijrah dari malas ke rajin" (Grade 9)
musyawarah	مُشَارَّة (mushāwarah)	Semantic shift	"Musyawarah kelas" (Grade 9)

Note: Arabic transcription follows standard transliteration conventions. Adaptation types indicate primary phonological or semantic changes.

Critical analysis of textbook treatment revealed a significant instructional gap: only 12% of loanword entries provided explicit explanations of contrastive linguistic features, etymological connections, or semantic shifts. This absence of metalinguistic information places substantial responsibility on individual teachers to provide contextual explanations and address student misconceptions.

Data Integration: Convergence Analysis

Triangulation of quantitative student data, qualitative teacher interviews, and textbook content analysis reveals strong convergence across data sources. Table 7 presents an integrated analysis demonstrating alignment between textbook content, teacher strategies, and student outcomes.

Table 7. Convergence Analysis: Textbook Content, Teacher Practice, and Student Outcomes

Aspect	Textbook Finding	Teacher Report	Student Outcome
Religious vocabulary effectiveness	62% of corpus	"Entry point untuk pembelajaran" (T1)	88% recognition
Grammatical challenges	16% frequency	"Perlu repetisi khusus" (T3)	48% recognition
Phonological adaptation	73% words adapted	"Toleransi pelafalan" (T2)	65% accuracy
Abstract vocabulary	12% frequency	"Kurang media khusus" (T5)	37% recognition

Note: T1-T5 refer to Teacher participants 1-5. Convergence correlation coefficient $r = 0.82$ ($p < 0.001$).

The convergence analysis demonstrates a positive correlation ($r = 0.82$) between textbook frequency, teacher emphasis, and student recognition. Categories with higher textbook representation and explicit teacher strategies yielded higher student recognition rates, while underrepresented categories (grammatical terms, abstract vocabulary) showed correspondingly lower recognition.

Cross-Linguistic Transfer Effects

Exploratory Factor Analysis revealed a four-factor structure explaining 73.4% of total variance, with factors aligning with theoretical expectations: Heritage Language Familiarity ($\alpha = 0.89$), Pedagogical Effectiveness ($\alpha = 0.84$), Semantic Clarity ($\alpha = 0.81$), and Motivational Enhancement ($\alpha = 0.78$). Multiple regression analysis demonstrated that Heritage Language Familiarity significantly predicted Arabic learning achievement ($R^2 = 0.47$, $p < 0.001$), with loanword recognition serving as the strongest predictor ($\beta = 0.52$).

Heritage Language Education Framework

Within the heritage language education framework (Benmamoun et al., 2013), our findings strongly support positioning Arabic instruction in Indonesian madrasahs as heritage rather than foreign language education. Indonesian students' extensive exposure to Arabic through Islamic practices, embedded loanwords, and religious terminology creates foundational linguistic scaffolding consistent with Benmamoun et al.'s characterization of heritage learners as possessing "incomplete acquisition" rather than foreign language learning needs. The differentiated recognition patterns—88% for religious vocabulary versus 37% for abstract concepts—reflect the contextual nature of heritage language exposure, where daily religious practices provide consistent reinforcement for certain vocabulary categories.

The strong association between loanword familiarity and learning motivation supports identity-based language learning theories (Norton, 2013), suggesting that Arabic loanwords function as "identity markers" connecting students' Islamic identity with academic learning. Teacher 2's observation that students "merasa senang karena menarik gitu, ternyata ada kosa kata Bahasa Indonesia itu berasal dari kata Bahasa Arab" directly confirms this identity-language connection.

Cross-Linguistic Transfer and Cognitive Processing

Findings confirm positive transfer effects from Arabic loanwords to systematic Arabic learning, consistent with (Ringbom & Jarvis, 2009) cross-linguistic similarity research. The high proportion of students (84%) reporting enhanced comprehension through loanword integration provides empirical support for cognitive bridge mechanisms. However, the 15% experiencing semantic confusion highlights negative transfer challenges when surface similarities mask deeper linguistic differences, aligning with (Kellerman & Sharwood Smith, 1986) transfer constraints research. The semantic drift documented by 50% of teachers—particularly for terms like niat (intention) with divergent religious versus everyday meanings—demonstrates the complexity of cross-linguistic transfer when borrowed words undergo meaning adaptation.

Additionally, consistent with Cognitive Load Theory (Sweller et al., 2019), leveraging familiar Arabic loanwords appears to reduce extraneous cognitive load, allowing students to

channel processing resources toward pattern recognition. The 88% recognition rate for religious vocabulary—terms encountered in daily prayer and religious instruction—supports the principle that familiar anchors reduce cognitive burden in new learning contexts.

Translanguaging Pedagogy Applications

Teachers' strategic integration of loanwords across comparative analysis (ST-KOMP), multimedia enhancement (ST-MEDIA), etymological exploration (ST-ETIM), and stimulus techniques (ST-STIM) aligns with (García & Wei, 2014) translanguaging pedagogical principles. The strong student preference for multimedia integration (90%) supports digital translanguaging approaches advocated by (Cenoz et al., 2017). Teacher 1's integration of "slide ppt, video pembelajaran maupun games/*permainan Bahasa Arab*" exemplifies effective multimodal translanguaging.

However, teachers' challenges with semantic drift (50%) and morphological complexity (37.5%) indicate needs for enhanced linguistic preparation, suggesting that effective translanguaging pedagogy requires sophisticated metalinguistic awareness. The convergence between textbook limitations (12% providing explicit contrastive information) and teacher-reported challenges confirms a systemic gap in metalinguistic support.

Policy and Curriculum Implications

Three key policy recommendations emerge from these integrated findings: (1) Curriculum revision to include explicit cross-linguistic commentary in textbooks, addressing the current gap where only 12% of loanword entries provide metalinguistic information. Priority should be given to vocabulary categories showing lower recognition rates (grammatical terms at 48%, abstract vocabulary at 37%). (2) Teacher professional development focusing on contrastive linguistics and loanword pedagogy, with specific attention to semantic drift phenomena and morphological complexity. The universal teacher awareness (100%) provides a strong foundation, but the challenges reported (semantic drift 50%, grammatical complexity 37.5%) indicate targeted training needs. (3) Integration with Kurikulum Merdeka frameworks, whose student-centered learning emphasis aligns with heritage language education approaches.

Technology Integration

Empirically, student multimedia preferences (90%) and teachers' technology integration practices demonstrate readiness for innovative pedagogical approaches, aligning with emerging research on Arabic language technology integration (A. B. Sari et al., 2024). These findings suggest potential applications for developing sophisticated digital tools enabling dynamic loanword comparisons (Maunah, 2015; Mufliah et al., 2025; Ritonga et al., 2024; Sormin et al., 2025). Future developments may include AI applications to address semantic drift challenges, though quality concerns with AI-generated Arabic content (Chen & Liu, 2024) necessitate careful human oversight.

Limitations and Future Directions

This research acknowledges several limitations. The geographic scope focused exclusively on Madrasah Tsanawiyah institutions in Surabaya; findings may not be applicable to other Indonesian provinces with different sociolinguistic characteristics. The cross-sectional design limits ability to track long-term effects. Self-reported data from students may introduce

response bias, and reliance on teacher interviews rather than direct classroom observation limits accuracy of assessing instructional practices. The teacher sample (N=8) provides rich qualitative data but limits quantitative generalization. Future research should include longitudinal studies tracking vocabulary acquisition over academic years, regional expansion to rural and other urban contexts, cross-national comparisons with Arabic heritage language education in Malaysia and Brunei, and classroom-based intervention research with random assignment testing specific pedagogical approaches.

CONCLUSION

This study's primary contribution is demonstrating that Arabic loanwords embedded in Indonesian language function as effective cognitive bridges for systematic Arabic language acquisition in madrasah contexts, with differentiated effectiveness across vocabulary categories. The 88% recognition rate for religious vocabulary versus 37% for abstract concepts provides empirical guidance for curriculum prioritization and pedagogical strategy development.

This comprehensive mixed-methods investigation provides robust empirical evidence for the pedagogical potential of Arabic loanwords in Indonesian Islamic secondary education. Key findings include: extensive loanword presence in madrasah curricula (18.7% of vocabulary across Grades 7-9 textbooks), with concentration in religious (62%) and everyday (34%) domains; differentiated student recognition patterns with religious vocabulary achieving 88% recognition, everyday vocabulary 65%, grammatical terms 48%, and abstract concepts 37%; overwhelmingly positive student perceptions (84% enhanced comprehension, 78% improved confidence, 90% multimedia preference); universal teacher recognition (100%) of loanwords' instructional value with 75% demonstrating very high awareness; specific challenges including semantic drift (50% of teachers) and morphological complexity (37.5%); and fundamental deficiencies in explicit metalinguistic support in current textbooks (only 12% providing cross-linguistic commentary).

This research advances heritage language education theory by demonstrating how Arabic loanwords in Indonesian serve as linguistic resources that bridge students' existing cultural knowledge with systematic language acquisition, providing empirical support for translanguaging approaches within Islamic educational contexts. The convergence analysis ($r = 0.82$) between textbook content, teacher practice, and student outcomes confirms the validity of integrated pedagogical approaches.

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