

CODE-MIXING, BORROWING, AND LANGUAGE SHIFT AMONG HAUSA–ENGLISH BILINGUAL YOUTH IN URBAN KANO: SOCIOLINGUISTIC EVIDENCE AND IMPLICATIONS FOR HAUSA LANGUAGE MAINTENANCE

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Abstract

This study investigated code-mixing, lexical borrowing, and language shift among Hausa–English bilingual youth in urban Kano, Nigeria, and examined the implications for Hausa language maintenance. A mixed-methods design integrated questionnaires (n = 120 youth), semi-structured interviews (n = 40), participant observation (48 sessions; 1,248 episodes coded), audio recordings of natural speech (64 hours), and social media content analysis (1,840 items). Participants were drawn from five urban LGAs: Kano Municipal, Nassarawa, Gwale, Tarauni, and Fagge. Quantitative data were analysed in SPSS; qualitative data through reflexive thematic analysis. Findings reveal that 84% of youth participants engage in frequent or very frequent code-mixing. Insertion is the most common type (65% of 1,248 episodes); social media (78%) and peer group settings (73%) are the most mixing-saturated domains, whilst religious settings retain the highest Hausa use (88%). A corpus of 386 English borrowings was documented, dominated by technology and digital vocabulary (86 items; 22%). Intergenerational analysis reveals a 48 percentage point decline in overall Hausa-dominant use from elders and parents (84%) to teachers (62%) to youth (36%). Language attitude analysis shows youth rating English prestige (mean = 4.52) and necessity (4.56) higher than teachers (4.12 and 4.08), whilst teachers rate Hausa maintenance importance significantly higher (4.62 vs. 4.12). No group holds negative attitudes toward Hausa. The study proposes a Hausa Language Vitality and Maintenance Framework (HLVMF) comprising code-mixing, borrowing, and language shift diagnostics linked to four maintenance strategy pillars: educational, media and digital, community and family, and policy and institutional. The findings establish a measurable shift trajectory requiring coordinated intervention whilst confirming that community attitudes toward Hausa remain positive across all generations.

Keywords: Code-mixing; lexical borrowing; language shift; Hausa language maintenance; bilingual youth; urban Kano; Matrix Language Frame; intergenerational transmission; digital sociolinguistics; language attitudes

1. INTRODUCTION

Urban Kano presents one of northern Nigeria's most complex sociolinguistic environments: a city of over four million speakers where Hausa coexists with English in an increasingly unequal relationship shaped by digital culture, globalisation, and a formal education system that rewards English proficiency whilst providing inadequate structural support for Hausa literacy. Among young speakers aged 15 to 30, the most linguistically consequential generation in determining Hausa's long-term vitality, the daily reality is one of constant Hausa-English contact mediated by social media, peer culture, and educational institutions that systematically position English as the language of modernity and advancement. Code-mixing, lexical borrowing, and domain-level language shift have become normalised features of urban youth communication, raising urgent questions about the trajectory of Hausa language vitality in precisely the speaker cohort whose linguistic choices will shape the next generation's language environment.

This paper reports the principal findings of the first systematic, community-specific, mixed-methods investigation of these linguistic phenomena among Hausa-English bilingual youth in urban Kano. By combining questionnaire data, interviews, participant observation, audio corpus analysis, and social media content analysis across five LGAs, the study produces both an empirical account of the current linguistic situation and an evidence-based framework for maintenance intervention. Four research questions guide the analysis: the frequency, types, and domains of code-mixing and borrowing; the sociocultural, educational, and technological factors driving language shift; youth language attitudes and their relationship to language preferences; and the implications for Hausa language maintenance.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Code-Mixing: The Matrix Language Frame Model

Myers-Scotton's (1993) Matrix Language Frame (MLF) model provides the primary theoretical framework for the analysis of code-mixing in this study. The MLF posits that in mixed utterances, one language — the Matrix Language — provides the grammatical frame within which lexical items from the Embedded Language are inserted. The model predicts that in Hausa-English contact, where Hausa is the dominant community language, Hausa typically functions as the Matrix Language with English contributing embedded lexical items. This prediction is confirmed for most settings in this study's data, but the findings document an important modification: in academic and digital settings, the ML-EL relationship is partially reversed, with English providing grammatical structure and Hausa providing insertions — a reversal that constitutes a significant indicator of domain-level language shift. Gumperz (1982) and Romaine (1995) provide complementary analytical frameworks for the functional and typological analysis of code-mixing episodes.

2.2 Language Shift, Maintenance, and Youth

Fishman's (1991) Reversing Language Shift framework and his Graded Intergenerational Disruption Scale (GIDS) provide the theoretical lens for assessing the shift trajectory documented in this study. Fishman argues that language shift proceeds through progressive domain loss: endangered languages first lose formal institutional domains, then informal social domains, and finally the home and family domain where intergenerational transmission occurs. The domain-specific language use data in this study allow positioning of Hausa in urban Kano on the GIDS scale and identifying the intervention priorities most likely to

interrupt the shift. Blommaert's (2010) sociolinguistics of globalisation extends Fishman's framework to incorporate the role of digital media — absent from Fishman's original theory — as a new and particularly powerful driver of language shift through continuous, affectively positive exposure to English-language content. Bamgbose (1991), Batibo (2005), and Adegbija (1994) provide the specifically African context for understanding how colonial and post-colonial institutional structures shape language attitudes and use patterns in urban multilingual settings like Kano.

3. METHODOLOGY

A mixed-methods research design was adopted, integrating five data collection instruments. Structured questionnaires (YBLQ; Cronbach's $\alpha = .84$) were administered to 120 bilingual youth participants (ages 15-30) across five urban LGAs of Kano (Kano Municipal $n = 26$, Nassarawa $n = 24$, Gwale $n = 24$, Tarauni $n = 24$, Fagge $n = 22$). Semi-structured interviews were conducted with 40 participants representing four groups: youth ($n = 20$), teachers and lecturers ($n = 10$), language experts ($n = 5$), and parents and community elders ($n = 5$). Forty-eight participant observation sessions produced 1,248 coded code-mixing episodes across six setting types. Audio recordings (64 hours) of natural speech were transcribed using ELAN annotation software (inter-rater kappa = 0.88). A corpus of 1,840 social media items from WhatsApp, Facebook, TikTok, and Twitter/X was subjected to content analysis. Quantitative data were analysed in SPSS (descriptive statistics, cross-tabulations); qualitative data through reflexive thematic analysis (Braun and Clarke, 2006). Multistage sampling combined purposive, stratified, and random procedures. Ethics clearance was granted by the JSCELS Research Ethics Board, and written informed consent was obtained from all participants.

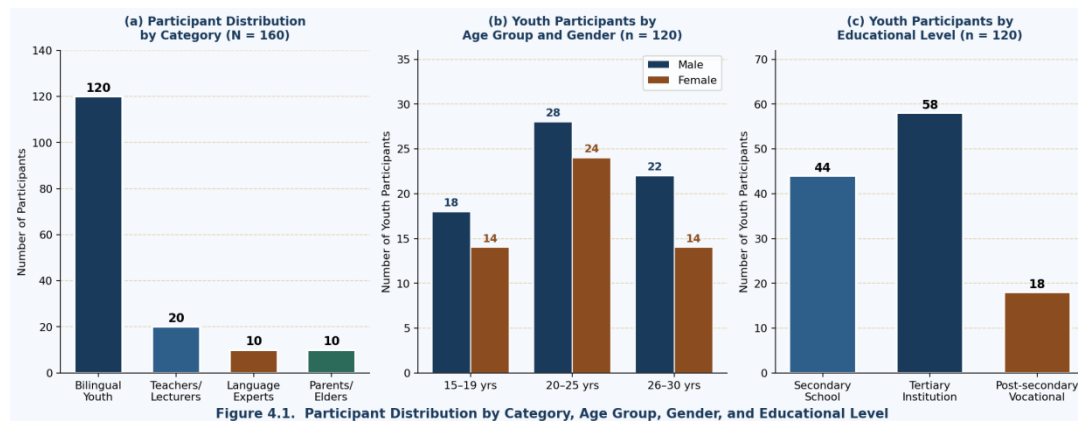


Figure 1. Participant distribution by category, age group, gender, and educational level ($N = 160$).

4. RESULTS AND DISCUSSION

4.1 Code-Mixing Patterns and Domains (RQ1)

Figures 2 and 3 and Tables 1 through 3 present the code-mixing findings.

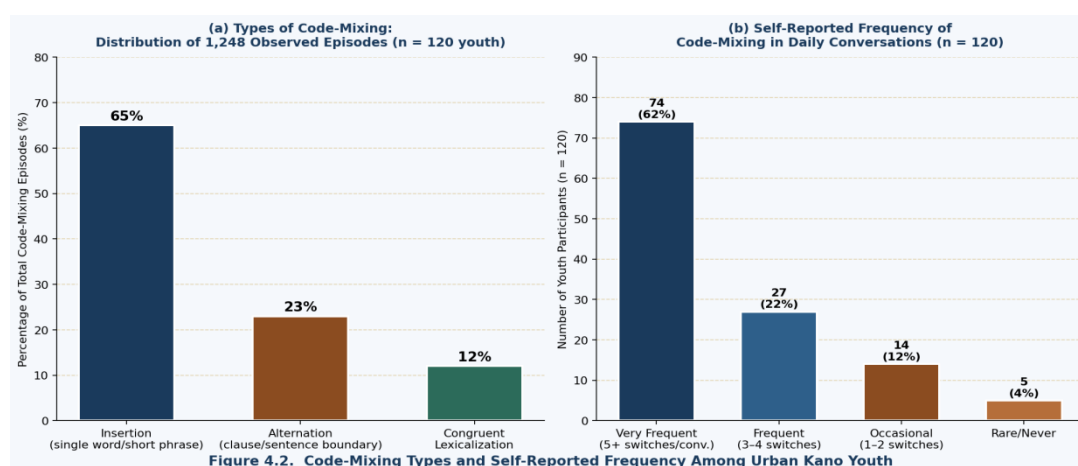


Figure 2. Code-mixing types across 1,248 observed episodes (left) and self-reported frequency (right).

Table 1 Code-Mixing Types and Borrowed Lexical Items by Domain

Category	n / %	Dominant setting	Key finding
Insertion (CM type)	811 (65%)	Peer, social media	Hausa ML with English EL; most common across all settings
Alternation (CM type)	287 (23%)	School, formal	Sentence-boundary switching; English increasingly assumes ML in academic settings
Congruent lex. (CM type)	150 (12%)	Nassarawa, digital	Highest in tertiary-education LGA; signals advanced structural shift
Technology borrowings	86 items (22%)	All settings	Largest borrowed domain; fon, intanit, dadaunlod, folowa most frequent
Education borrowings	72 items (19%)	School, tertiary	asainmant, tofik, prezanteshon; academic register most heavily borrowed
Fashion/lifestyle borrow.	68 items (18%)	Peer, social media	Identity-marking borrowings: stail, vaib, trendin, feshon

Note. CM = code-mixing; ML = Matrix Language; EL = Embedded Language. Source: Observation corpus and audio transcription, 2025-2026.

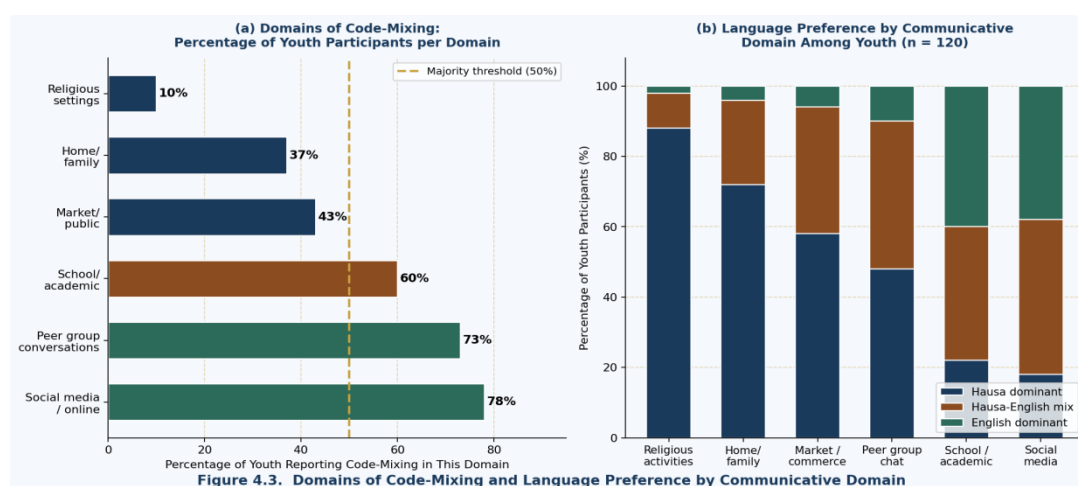


Figure 3. Domains of code-mixing (left) and language preference by communicative domain (right).

The code-mixing data establish that insertion (65%) is the dominant type across 1,248 observed episodes, consistent with Myers-Scotton's (1993) prediction that where Hausa functions as the Matrix Language, English contributes primarily as an embedded language through lexical insertion. However, the 23% alternation rate and 12% congruent lexicalization rate — concentrated in Nassarawa LGA and digital settings — signal that in these domains the ML-EL relationship is being restructured. Nassarawa LGA (the university-dominated area) shows the highest proportion of alternation and congruent lexicalization, reflecting the English-dominant academic environment. This structural reversal is a significant finding: it suggests that for tertiary students in Kano, English is no longer only a lexical contributor to Hausa discourse but increasingly the grammatical provider — a qualitatively different stage of language contact than simple insertion would imply.

The domain distribution data (Figure 3, right panel) confirm Fishman's (1972) domain theory with striking precision. Hausa-dominant use is strongest in religious settings (88%) and home/family (72%) and weakest in social media (18%) and school/academic (22%). The social media domain's position as the most English-dominant in youth speech — combined with the finding that 87% of youth identified social media and digital content as a factor in language shift — establishes the digital sphere as the most urgent intervention target. The 386-item borrowed English lexical corpus (Table 1), with technology and digital vocabulary (22%) as the largest category, further confirms that the English-Hausa contact is most intense and most transformative in the digital domain. The phonological adaptation patterns documented in the audio corpus (consonant cluster reduction, vowel insertion to satisfy Hausa CV syllable preferences, tonal assimilation) confirm that these borrowings are undergoing genuine lexical integration into Hausa youth speech, not merely episode-level mixing.

4.2 Language Shift Factors and Intergenerational Trajectory (RQ2)

English dominance in formal education (90% endorsement), social media and digital content (87%), and English economic necessity (82%) are the three most widely endorsed language shift factors. These factors constitute a mutually reinforcing ecology of English prestige — operating simultaneously in the classroom, on the screen, and in the aspirational imagination of urban youth — that no single intervention can adequately address. The social media content analysis reveals important platform-level variation: WhatsApp (used by 96% of social media users daily) shows the most balanced Hausa-English mixing pattern, whilst

Twitter/X (55% of users) and TikTok (77%) show the most English-dominant patterns, consistent with the global English-medium character of these platforms' dominant content flows.

Table 2 Intergenerational Hausa-Dominant Language Use (% by Domain and Generation)

Domain	Elders %	Teachers %	Youth %	Intergenerational shift
Overall daily use	84	62	36	48 percentage point decline across three generations
Peer / social interaction	82	72	48	34 pp. decline; peer domain most consequential for shift
Home and family	94	88	72	22 pp. decline; home most resistant; critical transmission bastion
Social media / digital	42	28	18	24 pp. decline; most English-dominant domain across all generations
Commercial / market	88	76	58	30 pp. decline; market Hausa shows relative resistance

Note. pp. = percentage points. Source: Interview data and questionnaire, 2025-2026.

The intergenerational data in Table 2 constitute the most urgent finding of this study. A 48 percentage point decline in overall Hausa-dominant daily use across three generations traces a shift trajectory that, if sustained, risks intergenerational transmission failure in the next generation. This is consistent with Fishman's (1991) GIDS analysis: language shift in urban Kano has progressed through the formal institutional domains (education is now English-dominant for youth), through formal social domains (school and academic settings), and is encroaching on informal social domains (peer group interaction shows a 34 pp. decline). Critically, the home and family domain remains the most resistant, with 72% of youth reporting Hausa-dominant home use. Protecting this domain is the single most important maintenance priority, because once home language transmission fails, recovery is rarely achieved without sustained and intensive community intervention.

4.3 Language Attitudes and Preferences (RQ3)

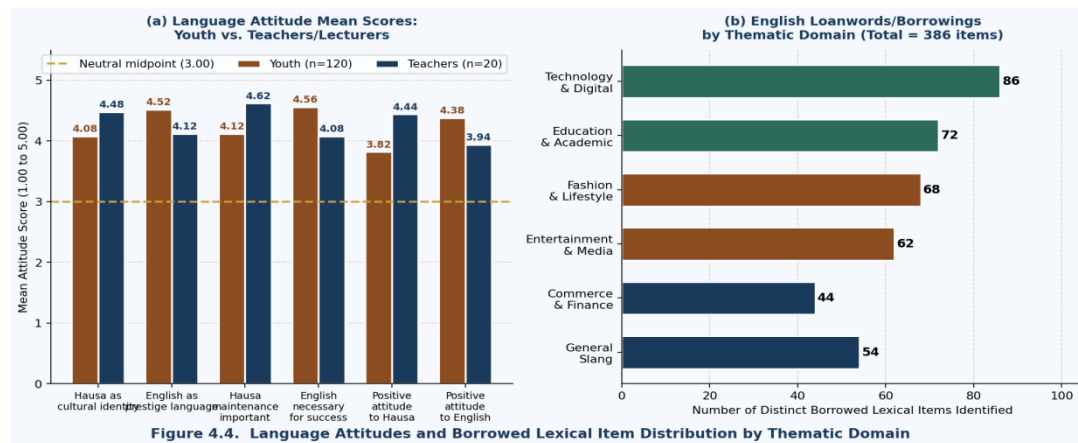


Figure 4. Language attitude mean scores by participant group (left) and borrowed lexical corpus by domain (right).

Table 3 Language Attitude Mean Scores by Participant Group (5-point scale, N = 160)

Attitude Dimension	Youth (n=120)	Teachers (n=20)	Experts (n=10)	Parents (n=10)	Key Pattern
Hausa as cultural identity	4.08	4.48	4.82	4.76	Inverse age gradient; youth still positive (>4.0)
English as prestige language	4.52	4.12	3.64	3.48	Youth strongest; clear inverse relationship with age
Hausa maintenance important	4.12	4.62	4.88	4.84	All groups positive; experts and parents most strongly
English necessary for success	4.56	4.08	3.72	3.60	Youth show strongest instrumental English orientation
Overall Hausa attitude	3.82	4.44	4.78	4.66	0.62 gap between youth and teachers; all above neutral

Note. All means above 3.00 neutral midpoint; no group holds negative attitude toward Hausa. Source: YBLQ Section D and interview data, 2025-2026.

The language attitude data reveal a theoretically important paradox. Youth endorse Hausa cultural identity (4.08) and maintenance importance (4.12) positively, but simultaneously rate English prestige (4.52) and economic necessity (4.56) significantly higher. No group holds negative attitudes toward Hausa: all means across all dimensions for all groups exceed 3.00. This finding directly challenges simplistic explanations of Hausa language shift as driven by anti-Hausa sentiment or cultural rejection. Instead, it reveals a structural prestige asymmetry in which the institutional architecture of formal education and the formal economy rewards English proficiency more immediately and visibly than Hausa proficiency, creating a consistent instrumentally-motivated preference for English that coexists with genuine cultural affection for Hausa. Bamgbose (1991) identified this pattern as characteristic of post-colonial language ecology, and Baker's (2011) distinction between instrumental and integrative language orientations provides the theoretical framework for understanding it: youth hold integrative orientations toward Hausa (cultural identity, solidarity) alongside strongly instrumental orientations toward English (career success, digital access). The key implication is that maintenance strategies must enhance Hausa's instrumental value — its digital presence, its economic relevance, its formal educational prestige — rather than relying exclusively on appeals to cultural identity that leave the instrumental asymmetry unaddressed.

4.4 The Hausa Language Vitality and Maintenance Framework (RQ4)

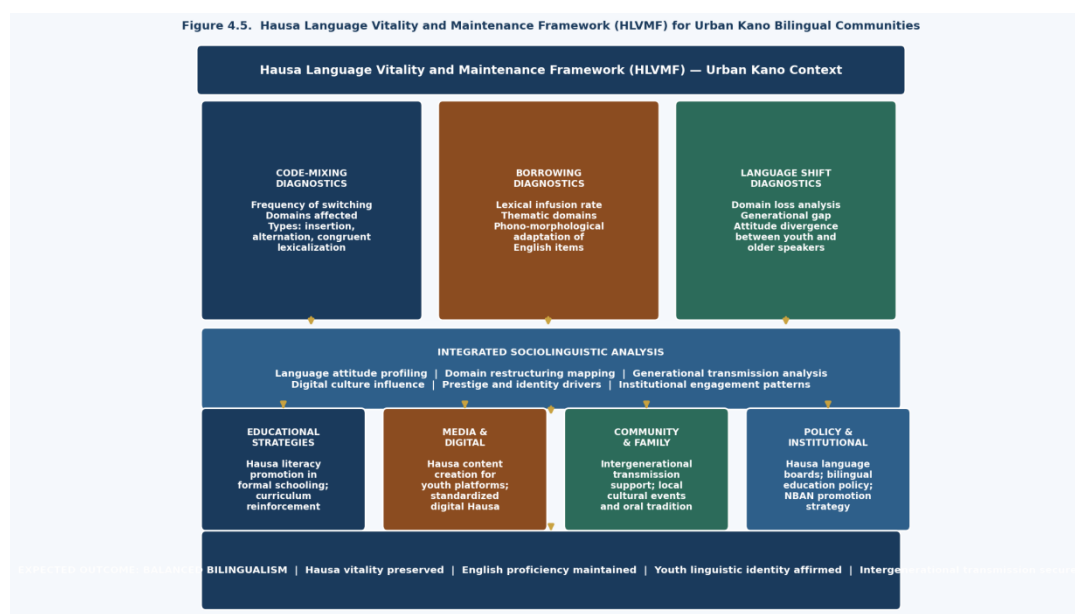


Figure 5. Hausa Language Vitality and Maintenance Framework (HLVMF).

Figure 5 presents the Hausa Language Vitality and Maintenance Framework (HLVMF) proposed on the basis of this study's findings. The HLVMF organises the empirical evidence into a three-level diagnostic and intervention model. The Diagnostic Level identifies three interconnected processes through which Hausa vitality is being challenged: code-mixing (assessed through frequency, type, and domain distribution), borrowing (assessed through lexical infusion rate and thematic domain analysis), and language shift (assessed through domain loss, generational gaps, and attitude divergence). The Integrated Analysis Level synthesises the diagnostic findings through language attitude profiling, domain restructuring mapping, generational transmission analysis, digital culture influence, and prestige and identity driver assessment — ensuring that maintenance interventions address the full complexity of the sociolinguistic situation rather than responding to isolated symptoms. The Maintenance Strategy Level organises four evidence-based pillars: Educational Strategies (Hausa literacy promotion, curriculum reinforcement); Media and Digital Strategies (Hausa content creation for youth platforms, standardised digital Hausa); Community and Family Strategies (intergenerational transmission support, cultural events, oral tradition); and Policy and Institutional Strategies (language board coordination, bilingual education policy, NBAN strategy). The framework's target outcome — balanced bilingualism — positions Hausa and English as complementary resources rather than competitors, aiming to maintain full Hausa vitality whilst supporting English proficiency development.

5. CONCLUSION AND RECOMMENDATIONS

This study provides the first comprehensive mixed-methods investigation of Hausa-English code-mixing, borrowing, and language shift among bilingual youth in urban Kano, generating five principal findings. First, code-mixing is pervasive (84% frequent or very frequent), structurally organised, and domain-specific: insertion dominates (65% of 1,248 episodes), but the significant proportion of alternation (23%) and congruent lexicalization (12%) in tertiary and digital settings signals that English is beginning to assume Matrix Language functions in these domains. Second, a measurable 48 percentage point intergenerational decline in Hausa-

dominant daily use across three generations traces a shift trajectory that, if unchecked, risks intergenerational transmission failure. Third, social media and digital culture — endorsed by 87% of youth as a shift factor — constitute the most rapidly evolving and least-addressed driver of language shift, demanding urgent investment in Hausa-language digital content. Fourth, no participant group holds negative attitudes toward Hausa, but youth consistently show higher instrumental orientations toward English, confirming that maintenance strategies must enhance Hausa's instrumental value alongside its cultural identity associations. Fifth, the home and family domain remains the most critical and most resistant site for Hausa maintenance, with 72% of youth reporting Hausa-dominant home use.

Four recommendations follow directly from these findings. First, the Kano State Government and Ministry of Education should implement a Hausa Language Vitality Policy mandating Hausa language instruction as a compulsory, well-resourced subject from primary through tertiary level, with the HLVMF as its diagnostic and intervention framework. Second, the National Broadcasting Authority of Nigeria should invest in Hausa-language digital content development specifically targeting youth-oriented platforms — TikTok, Twitter/X, and Instagram — where Hausa-dominant use is lowest. Third, community and religious leaders should maintain and expand Hausa's presence in religious, ceremonial, and community settings, the domains where Hausa retention is strongest and where positive cultural identity attitudes are most effectively reinforced. Fourth, JSCELS Ringim should establish a permanent Language Contact and Maintenance Research Unit applying the HLVMF to longitudinal monitoring of Hausa vitality in Jigawa State and producing annual evidence-based policy recommendations.

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