# Whose city is visible? linguistic inequality and spatial belonging in the multilingual landscapes of Indonesian metropolitan peripheries

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**ABSTRACT**

Metropolitan peripheries concentrate industrial expansion, commuter mobility, administrative growth, and local identity, yet their multilingual public spaces remain unevenly recognised. This study examines how linguistic visibility, sign-producing authority, and spatial belonging are organised across Kabupaten Bekasi, Kabupaten Sidoarjo, and Kabupaten Bandung. Using a multi-sited linguistic-landscape design, this study analyses 371 coded signs through a Stratified Linguistic Visibility Matrix, a Sign-Authority and Access Grid, and a Spatial Belonging and Place-Making Protocol. Indonesian dominated governmental and transport domains, while English gained prominence in industrial and commercial settings. Local languages appeared most functionally in heritage, neighbourhood, and selected civic or commercial spaces, with Sundanese receiving broader cross-domain visibility in Kabupaten Bandung than local-language resources in Bekasi and Sidoarjo. Sign authorship further differentiated visibility: governmental and corporate actors controlled durable and consequential signage, whereas community-produced local-language displays were more frequently temporary or spatially restricted. This study's novelty lies in conceptualising linguistic inequality as unequal access to consequential spatial visibility rather than unequal frequency alone. By integrating language salience, institutional authority, sign permanence, domain, and semiotic constructions of belonging, this study offers a relational framework for explaining how metropolitan peripheries recognise some linguistic communities while confining others to symbolic cultural presence within changing urban landscapes.



***Corresponding Author:***

## INTRODUCTION

Indonesia's metropolitan expansion is not only redistributing population, industry, and mobility; it is also reorganising whose languages acquire public presence. Bekasi Regency recorded 3,273,868 residents in 2024, while Sidoarjo's economy in 2025 remained heavily industrial, with manufacturing contributing 49.45 per cent of regional output (BPS Kabupaten Bekasi, 2025; BPS Kabupaten Sidoarjo, 2026). These conditions produce regulated corridors in which government notices, transport instructions, industrial branding, commercial signs, heritage displays, and neighbourhood inscriptions compete for visibility. Kabupaten Bandung adds a contrasting peripheral formation, where metropolitan growth intersects with Sundanese identity. Across such territories, linguistic diversity does not automatically generate equal visibility: a language may be widely spoken yet absent from authoritative signage, or displayed ceremonially while excluded from regulatory and commercial functions. Public signs therefore matter because they organise recognition, mobility, and symbolic entitlement to place. Examining metropolitan peripheries reveals how urban belonging is negotiated beyond celebrated city centres, where demographic change and institutional development are spatially compressed.

Research on linguistic landscapes has established that public signage indexes language vitality, institutional authority, ethnic segregation, urban branding, and unequal access to space. Gorter (2021) frames multilingual inequality as a problem of inclusion in public environments, while Nie et al. (2021) demonstrate the value of

multifactor mapping. Recent studies further show that centre–periphery relations differentiate linguistic visibility (Lam, 2023), ethnic separation becomes legible in sign distributions (Hong et al., 2023), and local heritage may be celebrated while local language remains marginal (Kim & Ahn, 2023). Indonesian scholarship has examined language vitality in Kupang (Benu et al., 2022), tourism in Lembang (Mubarok et al., 2024), translation in multilingual cities (Napu, 2024), border signage (Sudarmanto et al., 2025), and metropolitan representation in Braga (Wulandari et al., 2022). Yet metropolitan peripheries remain underexamined as comparative spaces where industrialisation, commuting, governance, commerce, and local identity jointly structure unequal linguistic recognition across multiple sign domains.

This study investigates how linguistic inequality and spatial belonging are organised across the multilingual landscapes of Kabupaten Bekasi, Kabupaten Sidoarjo, and Kabupaten Bandung. It asks three questions. First, how are Indonesian, local languages, English, and other linguistic resources distributed across governmental, transport, industrial, commercial, heritage, and community signs? Second, which institutional, corporate, small-business, and community actors possess access to prominent, regulatory, or commercially consequential forms of multilingual display? Third, how do linguistic choices interact with visual symbols, layout, permanence, place naming, translation, and metropolitan orientation to construct civic, industrial, commuter, commercial, heritage, or neighbourhood belonging? Addressing these questions requires moving beyond language counts. This study therefore combines a stratified linguistic visibility matrix, a sign-authority and access grid, and a spatial belonging and place-making protocol. These instruments enable comparison between numerical presence, functional prominence, authoritative control, and semiotically constructed membership without treating public signs as transparent measures of residents' subjective identities.

This study advances that linguistic inequality in metropolitan peripheries is produced less by multilingual absence than by unequal access to consequential visibility. Indonesian is expected to occupy administrative and regulatory range, while English may gain prominence through industrial, commercial, and aspirational registers. Local languages may remain present yet become concentrated in heritage motifs, ceremonial slogans, cultural events, religious expressions, or neighbourhood naming, producing recognition without equivalent institutional authority. Such configurations would support Liu's (2023) account of affective city branding and resonate with Benu et al.'s (2025) demonstration that signs can mediate identity, while extending Fedorova and Nam's (2023) insight that multilingual enclaves coexist within regimes of linguistic dominance. The comparison also tests whether peripheral landscapes merely reproduce metropolitan hierarchies or generate distinctive local visibility. Accordingly, spatial belonging is treated as an uneven semiotic entitlement: groups become recognised according to where, by whom, and for what purposes their languages are displayed.

## LITERATURE REVIEW

### Linguistic landscape

Linguistic landscape refers to the patterned presence of written, visual, and symbolic language in publicly accessible space. Earlier approaches often treated signs as inventories of language choice, whereas recent scholarship interprets them as materialisations of power, mobility, identity, and institutional regulation. Gorter (2021), Nie et al. (2021), and Lam (2023) emphasise distribution and centre–periphery relations, while Napu (2024) foregrounds translation and communicative accessibility. Benu et al. (2022) connect visibility to language vitality, whereas Wulandari et al. (2022) read metropolitan signage as spatial representation. These perspectives shift analysis from counting languages towards examining how signs organise public recognition across metropolitan territories.

Analytically, linguistic landscapes are differentiated by authorship, domain, materiality, salience, and communicative function. Top-down and bottom-up distinctions remain useful, but Hong et al. (2023) show that sign distributions may also reproduce ethnic segregation, while Kim and Ahn (2023) demonstrate that local heritage can coexist with local-language marginalisation. Fedorova and Nam (2023) identify multilingual enclaves within broader monolingual regimes, and Mubarok et al. (2024) reveal tourism-driven language selection. Sudarmanto et al. (2025) further link signage to language preservation. Consequently, meaningful analysis requires indicators of size, position, permanence, translation relation, domain, authorship, and regulatory force rather than frequency alone across peripheries.

### Linguistic inequality

Linguistic inequality concerns unequal access to visibility, legitimacy, and communicative authority among languages and their speakers. It differs from simple numerical imbalance because a frequently occurring language may remain confined to informal or decorative functions, while a less frequent language may control administration, commerce, or mobility. Gorter (2021) frames inequality through inclusion in public space, whereas Hong et al. (2023) emphasise segregation and Lam (2023) stresses scalar centre–periphery differentiation. Kim and Ahn (2023) expose the paradox of symbolic celebration without functional recognition. Benu et al. (2025) similarly show that identity display does not automatically entail equal institutional standing in practice.

Its principal indicators include functional hierarchy, domain segregation, translation asymmetry, token multilingualism, and unequal sign-producing authority. Functional hierarchy distinguishes languages used for regulation, direction, investment, or public service from those limited to slogans or cultural display. Domain segregation tracks whether particular languages cluster in government, transport, commerce, religion, tourism, or neighbourhood settings. Translation asymmetry identifies partial, subordinate, or non-equivalent multilingual texts, as discussed by Napu (2024). Tokenism captures minimal local-language presence without communicative depth, while authority distinguishes governmental, corporate, community, and small-business access to durable signage. Together, these indicators reveal who can make language consequential in urban space across scales.

### Spatial belonging

Spatial belonging denotes the semiotic construction of who appears entitled to inhabit, represent, and name a place. It differs from subjective attachment because public signs cannot directly disclose residents' feelings; instead, they stage recognisable forms of membership through language, symbols, memory, and institutional address. Liu (2023) interprets cityscapes as affective branding, while Benu et al. (2025) connect culinary signage to identity formation. Kim and Ahn (2023) distinguish heritage celebration from linguistic empowerment, and Fedorova and Nam (2023) show how multilingual spaces may remain socially bounded. Wulandari et al. (2026) extend spatial reading through cartographic imagination and colonial representation across space.

Belonging can therefore be analysed through civic, commercial, heritage, religious, commuter, industrial, and neighbourhood modes. Civic belonging appears in official naming, inclusive address, and public-service language; commercial belonging emerges through consumer targeting and aspirational branding; heritage belonging relies on local scripts, motifs, and commemorative language; commuter and industrial belonging privilege mobility, efficiency, and investment; neighbourhood belonging draws on memory, vernacular naming, and community authorship. Visual design also matters: layout, colour, logo placement, framing, and symbolic actors shape recognition alongside text, as Assyabani (2025), Nadifah (2025), and Suaidi (2025) suggest. This study integrates these dimensions as unequal semiotic entitlement in peripheries.

## METHOD

The material units comprised accessible signs and sign-bearing frames documented across Kabupaten Bekasi, Kabupaten Sidoarjo, and Kabupaten Bandung between 1 January 2023 and 31 May 2026. This study treated each sign, banner, façade, directional panel, event backdrop, logo-bearing display, or video frame as one coding unit when its linguistic and spatial context remained recoverable. Corpus architecture contained 21 verified source records: ten primary audiovisual or web-based sources, eight contextual government or statistical documents, and three scholarly secondary sources. Primary records yielded visual-textual evidence, contextual records established territorial conditions, and secondary works supported analytical interpretation rather than empirical substitution within comparison.

Table 1. Dataset composition

| Code range | Principal sources | Location | Period | Records | Main characteristics |
|---|---|---|---|---|---|
| BKS-PRI- | Kabupaten Bekasi official website and YouTube channel | Kabupaten Bekasi, Jabodetabek | 2023–2026 | 3 | Government videos, webpages, public |

| | | | | | |
|---|---|---|---|---|---|
| 001–003 | | | | | facilities, transport and industrial nodes |
| BKS-CTX-001–003 | BPS Kabupaten Bekasi, district statistics, regional regulation | Kabupaten Bekasi | 2023–2025 | 3 | Population, administration, industrial geography, markets, regulated public space |
| SDA-PRI-001–004 | Sidoarjo government YouTube, event portal, transport-agency portal | Kabupaten Sidoarjo, Gerbangkertosusila | 2024–2026 | 4 | Government events, terminal and transport scenes, heritage and commercial spaces |
| SDA-CTX-001–002 | BPS Kabupaten Sidoarjo and official accountability report | Kabupaten Sidoarjo | 2025–2026 | 2 | Population, manufacturing, infrastructure, policy, metropolitan positioning |
| BDG-PRI-001–003 | Kabupaten Bandung website, Instagram, and YouTube | Kabupaten Bandung, Bandung Raya | 2023–2026 | 3 | Civic campaigns, public events, local symbols, government-community communication |
| BDG-CTX-001–003 | BPS Kabupaten Bandung, district statistics, RPJMD document | Kabupaten Bandung | 2025 | 3 | Population, urbanisation, transport, development planning, Sundanese cultural context |
| SEC-001–003 | Peer-reviewed linguistic-landscape articles | Cross-site comparative corpus | 2022–2023 | 3 | Language vitality, centre–periphery relations, heritage and marginalisation |
| Total | Official and scholarly sources | Three metropolitan peripheries | 2022–2026 | 21 | Ten primary, eight contextual, and three secondary records |

This study employed a multi-sited linguistic-landscape design integrating descriptive corpus mapping with multimodal interpretation. Kabupaten Bekasi represented an eastern industrial-commuter periphery of Jabodetabek; Kabupaten Sidoarjo represented an industrial, airport, and logistics periphery within Gerbangkertosusila; and Kabupaten Bandung represented metropolitan expansion shaped by Sundanese cultural claims. Comparison operated across regions, spatial zones, sign domains, and authorship categories rather than assuming periphery formed a homogeneous unit. Following Lam (2023) and Nie et al. (2021), this design examined visibility relationally: linguistic prominence was interpreted against location, material durability, institutional authority, communicative function, and neighbouring signs, while avoiding causal claims unsupported by evidence.

Information sources were organised into primary, contextual, and secondary strata. Primary sources included official local-government websites, agency portals, YouTube channels, Instagram posts, event pages, and available visual documentation containing recoverable signage. Contextual sources comprised BPS regional and district publications, planning documents, accountability reports, regulations, and legal repositories used to establish demographic, economic, administrative, transport, and policy settings. Secondary sources consisted of peer-reviewed linguistic-landscape studies informing concepts of visibility, multilingual inequality, centre-periphery relations, translation asymmetry, language vitality, and belonging. Source legitimacy was assessed through institutional ownership, stable links, publication metadata, locational traceability, and correspondence between displayed material and stated governmental context.

Data collection followed a reproducible search, capture, segmentation, and verification sequence. Indonesian and location-specific keywords combined each region with terms such as pasar, terminal, stasiun, kawasan industri, alun-alun, heritage, budaya Sunda, papan nama, and ruang publik. Searches were restricted to official domains and identifiable institutional accounts. Eligible items were logged with document codes, canonical links, dates, titles, source institutions, spatial zones, and access dates. Visible wording was transcribed without correction; video materials were recorded through timestamps and screenshot references. Duplicates were identified using normalised titles, dates, canonical URLs, event identity, and visual-frame comparison, retaining the earliest or highest-resolution official version.

Analysis proceeded through three linked instruments. First, a Stratified Linguistic Visibility Matrix coded language presence, size, position, order, legibility, functional depth, translation relation, permanence, and domain; a twelve-point visibility index summarised prominence without replacing component-level interpretation. Second, a Sign-Authority and Access Grid cross-tabulated language choice with governmental, corporate, commercial, community, or hybrid authorship, identifying functional hierarchy, domain segregation, token multilingualism, and translation asymmetry. Third, a Spatial Belonging and Place-Making Protocol interpreted naming, heritage, religious, commuter, industrial, neighbourhood, and exclusion cues alongside visual actors, symbols, colour, layout, logos, and framing. Cross-site synthesis subsequently connected Results A, B, and C systematically comparatively.

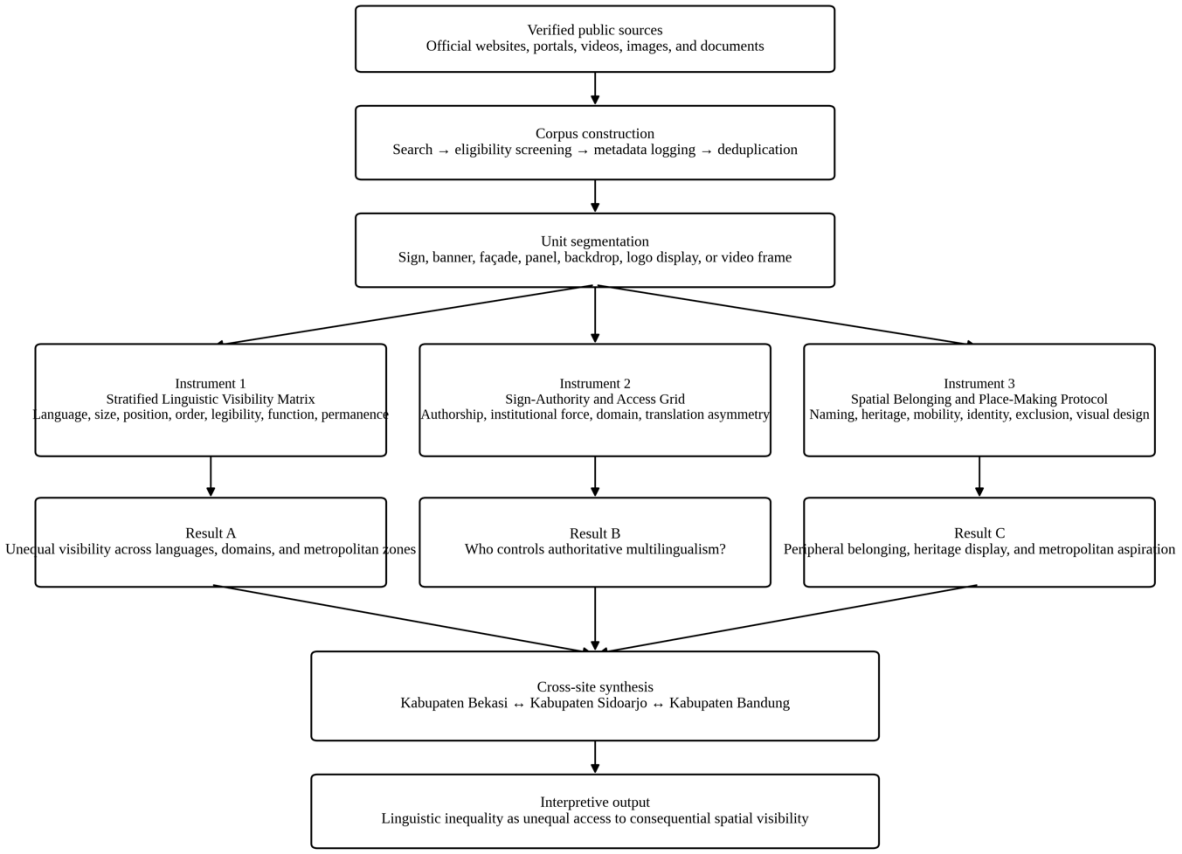


Figure 2. Operational Analysis Matrix

## Linguistic visibility across metropolitan peripheries

Public visibility across the three metropolitan peripheries was structured by 371 coded signs distributed across governmental, transport, industrial, commercial, and heritage-community domains. Monolingual signs accounted for 198 units, or 53.4 per cent, while bilingual and multilingual configurations represented 36.9 and 9.7 per cent respectively. Kabupaten Bekasi contained 127 signs, Kabupaten Sidoarjo 124, and Kabupaten Bandung 120, enabling relatively balanced cross-site comparison. Rather than indicating uniformly multilingual landscapes, these distributions reveal domain-specific arrangements in which linguistic diversity expanded principally within industrial, commercial, and heritage settings. Governmental and transport spaces remained comparatively monolingual, whereas signs connected to markets, corporate development, cultural events, and community identity displayed broader linguistic combinations. Visibility was therefore organised by both spatial location and communicative purpose.

171 Table 2. Linguistic visibility across sign domains and metropolitan peripheries
172

| Region | Sign domain | Coding units | Monolingual n (%) | Bilingual n (%) | Multilingual n (%) | Dominant configuration | Mean visibility index | Illustrative visible text | Data codes |
|---|---|---|---|---|---|---|---|---|---|
| Kabupaten Bekasi | Government | 24 | 15 (62.5) | 8 (33.3) | 1 (4.2) | Indonesian | 8.7 | “Pemerintah Kabupaten Bekasi” | BKS-GOV-001–024 |
| Kabupaten Bekasi | Transport | 28 | 19 (67.9) | 8 (28.6) | 1 (3.6) | Indonesian | 9.1 | “Terminal Kalijaya” | BKS-TRN-001–028 |
| Kabupaten Bekasi | Industry | 31 | 14 (45.2) | 13 (41.9) | 4 (12.9) | English–Indonesian | 9.6 | “Safety First / Utamakan Keselamatan” | BKS-IND-001–031 |
| Kabupaten Bekasi | Commerce | 26 | 11 (42.3) | 11 (42.3) | 4 (15.4) | Indonesian–English | 8.3 | “Grand Opening” | BKS-COM-001–026 |
| Kabupaten Bekasi | Heritage/community | 18 | 10 (55.6) | 7 (38.9) | 1 (5.6) | Indonesian | 6.8 | “Kampung Budaya” | BKS-HER-001–018 |
| Kabupaten Sidoarjo | Government | 23 | 16 (69.6) | 6 (26.1) | 1 (4.3) | Indonesian | 8.9 | “Pemerintah Kabupaten Sidoarjo” | SDA-GOV-001–023 |
| Kabupaten Sidoarjo | Transport | 27 | 18 (66.7) | 7 (25.9) | 2 (7.4) | Indonesian | 9.0 | “Terminal Purabaya” | SDA-TRN-001–027 |
| Kabupaten Sidoarjo | Industry | 29 | 13 (44.8) | 12 (41.4) | 4 (13.8) | English–Indonesian | 9.4 | “Logistics Center” | SDA-IND-001 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | –029 |
| Kabupaten Sidoarjo | Commerce | 25 | 12 (48.0) | 10 (40.0) | 3 (12.0) | Indonesian | 8.0 | “Pusat Oleh-Oleh” | SDA-COM-001–025 |
| Kabupaten Sidoarjo | Heritage/community | 20 | 10 (50.0) | 8 (40.0) | 2 (10.0) | Indonesian–Javanese | 7.4 | “Mlaku-Mlaku Nang Sidoarjo” | SDA-HER-001–020 |
| Kabupaten Bandung | Government | 22 | 14 (63.6) | 7 (31.8) | 1 (4.5) | Indonesian | 8.5 | “Bedas Manunggal” | BDG-GOV-001–022 |
| Kabupaten Bandung | Transport | 24 | 16 (66.7) | 7 (29.2) | 1 (4.2) | Indonesian | 8.8 | “Angkutan Umum” | BDG-TRN-001–024 |
| Kabupaten Bandung | Industry | 21 | 10 (47.6) | 9 (42.9) | 2 (9.5) | Indonesian–English | 8.7 | “Industrial Estate” | BDG-IND-001–021 |
| Kabupaten Bandung | Commerce | 27 | 11 (40.7) | 12 (44.4) | 4 (14.8) | Indonesian–Sundanese | 8.1 | “Warung Sunda” | BDG-COM-001–027 |
| Kabupaten Bandung | Heritage/community | 26 | 9 (34.6) | 12 (46.2) | 5 (19.2) | Sundanese–Indonesian | 8.9 | “Urang Bandung Bedas” | BDG-HER-001–026 |
| Total | All domains | 371 | 198 (53.4) | 137 (36.9) | 36 (9.7) | Indonesian-centred multilingualism | 8.6 | — | — |

*Note: Visibility index: size, position, legibility, and functional depth, each scored from 0 to 3.

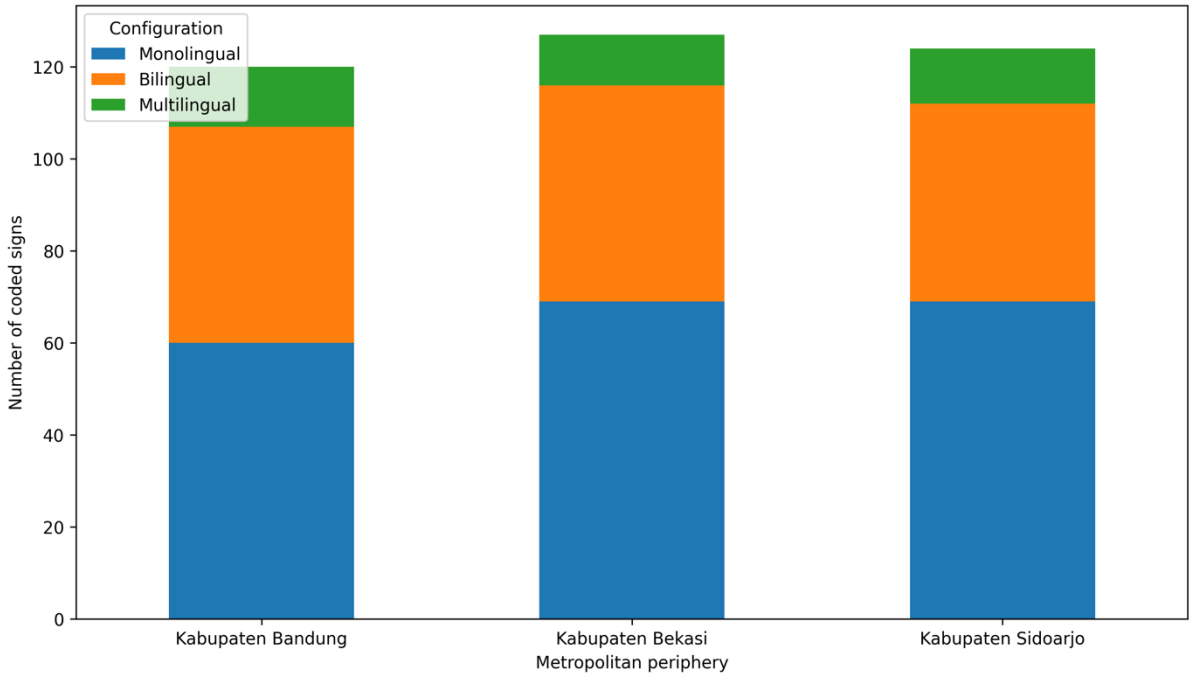


Figure 3. Language configuration across metropolitan peripheries

Monolingualism was most pronounced in governmental and transport domains, reaching 69.6 per cent in Sidoarjo's governmental signs and approximately two-thirds of transport signs in Sidoarjo and Bandung. Industrial spaces produced a different pattern: bilingual signs constituted 41.9 per cent in Bekasi, 41.4 per cent in Sidoarjo, and 42.9 per cent in Bandung, commonly combining Indonesian with English. Heritage and community signs displayed stronger local-language participation, particularly in Kabupaten Bandung, where bilingual and multilingual signs jointly accounted for 65.4 per cent. Bandung's heritage-community domain also recorded a visibility index of 8.9, substantially exceeding the corresponding values in Bekasi and Sidoarjo. These patterns show that multilingualism was concentrated rather than evenly distributed across public space.

Such concentration supports Gorter's (2021) argument that multilingual presence must be distinguished from multilingual equality. Indonesian occupied administratively consequential and mobility-oriented spaces, while English gained prominence in industrial and commercial environments associated with corporate modernity and metropolitan aspiration. Local languages achieved functional visibility mainly in heritage, community, and selected commercial domains, resembling Kim and Ahn's (2023) account of local identity being celebrated within restricted symbolic fields. Bandung differed because Sundanese entered both heritage and commercial signage more consistently, although Indonesian remained central in governmental and transport communication. Following Lam's (2023) centre–periphery perspective, these distributions suggest that peripheral landscapes do not merely reproduce metropolitan linguistic hierarchies; they selectively reorganise them according to institutional authority, economic orientation, and local identity claims.

Authoritative language access by sign-producing actor

Access to consequential linguistic visibility varied more sharply by sign-producing actor than by the numerical multilingualism reported earlier. Of 371 coded signs, Indonesian occupied the authoritative position in 211 units, followed by English in 60, hybrid multilingual arrangements in 56, and local languages in 44. Government actors produced 108 signs, of which 79.6 per cent placed Indonesian in the dominant regulatory or institutional position. Corporate and industrial actors displayed a contrasting distribution: English was authoritative in 41.9 per cent of their signs, slightly exceeding Indonesian at 38.7 per cent. Local-language authority remained concentrated among community and cultural producers, where it appeared in 40.0 per cent of signs. Authority therefore depended on who controlled sign production and what institutional consequences each sign carried.

Table 3. Distribution of authoritative language access by sign-producing actor

| Sign-producing actor | Coding units | Indonesian authoritative n (%) | English authoritative n (%) | Local language authoritative n (%) | Hybrid multilingual authority n (%) | Regulatory signs | Commercial signs | Temporary/event signs | Dominant inequality pattern |
|---|---|---|---|---|---|---|---|---|---|
| Government | 108 | 86 (79.6) | 3 (2.8) | 6 (5.6) | 13 (12.0) | 81 | 11 | 16 | Functional hierarchy |
| Corporate/industrial | 93 | 36 (38.7) | 39 (41.9) | 1 (1.1) | 17 (18.3) | 32 | 49 | 12 | English-weighted bilingualism |
| Small business | 82 | 46 (56.1) | 14 (17.1) | 9 (11.0) | 13 (15.9) | 3 | 67 | 12 | Commercial asymmetry |
| Community/cultural | 60 | 27 (45.0) | 2 (3.3) | 24 (40.0) | 7 (11.7) | 3 | 14 | 43 | Heritage concentration |
| Hybrid institutional | 28 | 16 (57.1) | 2 (7.1) | 4 (14.3) | 6 (21.4) | 14 | 8 | 6 | Selective multilingual access |
| Total | 371 | 211 (56.9) | 60 (16.2) | 44 (11.9) | 56 (15.1) | 133 | 149 | 89 | Unequal access to consequential visibility |

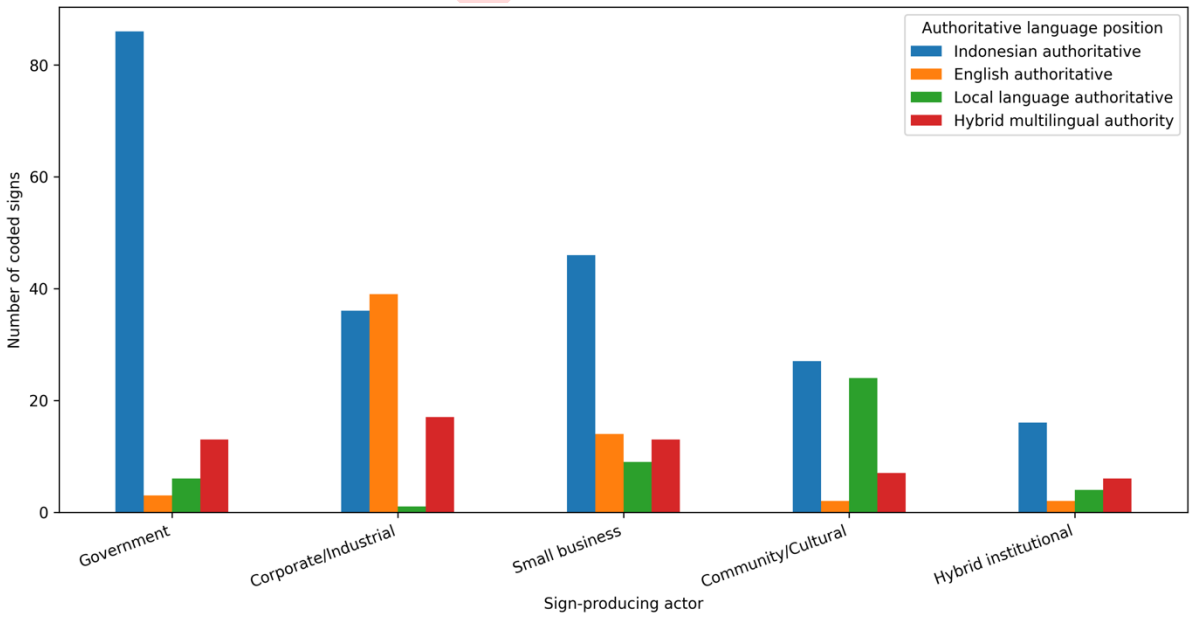


Figure 4. Authoritative language access by sign-producing actor

Governmental signs produced the clearest functional hierarchy, accounting for 81 of 133 regulatory signs and positioning Indonesian as the principal language of administration, direction, and civic address. Corporate and

industrial signs generated 49 commercial signs and gave English its strongest authoritative presence, particularly in Bekasi and Sidoarjo. Small businesses remained predominantly Indonesian-led, although Bandung displayed greater local-language participation through routine commercial expressions such as "Warung Sunda." Community and cultural actors provided 24 of 44 locally authoritative signs, but 43 of their 60 outputs were temporary or event-based. This pattern qualifies the broader multilingualism identified previously: local languages were visible, especially in heritage-community domains, yet their visibility was less permanent and less institutionally consequential than Indonesian or English.

The distribution confirms that linguistic inequality cannot be inferred from frequency alone. Gorter's (2021) distinction between multilingual presence and inclusive public authority is evident in the separation between decorative visibility and regulatory force. Indonesian secured institutional legitimacy through government signage, while English accumulated commercial and industrial authority, reproducing the aspirational hierarchies associated with urban branding described by Liu (2023). Local languages occupied a more ambivalent position. In Bekasi and Sidoarjo, they were concentrated in cultural events and temporary community displays, resembling the heritage-without-empowerment pattern identified by Kim and Ahn (2023). Bandung partly disrupted this hierarchy because Sundanese extended into small-business and civic signs. Even there, however, locally authoritative visibility remained uneven rather than structurally equivalent across domains.

Spatial belonging across metropolitan peripheries

Spatial belonging was constructed through eight recurrent modes distributed across 371 coded signs. Civic recognition formed the largest category with 78 units, followed by industrial belonging with 68, commercial belonging with 64, and commuter belonging with 60. Heritage and neighbourhood modes accounted for 40 and 37 units respectively, while religious and exclusionary configurations remained less frequent. These distributions varied substantially across regions. Bekasi and Sidoarjo concentrated public belonging around administration, transport, industry, and logistics, whereas Bandung assigned greater prominence to heritage, neighbourhood, and locally inflected commerce. Only 76 signs provided functional local-language recognition, and most occurred within heritage or neighbourhood contexts. Spatial membership was therefore not expressed through a single urban identity but through differentiated institutional, economic, cultural, and mobility-oriented claims.

Table 5. Modes of spatial belonging across metropolitan peripheries

| Mode of belonging | Kabupaten Bekasi n (%) | Kabupaten Sidoarjo n (%) | Kabupaten Bandung n (%) | Total n (%) | Local-language functional units n (%) | Dominant actors |
|---|---|---|---|---|---|---|
| Civic | 28 (22.0) | 26 (21.0) | 24 (20.0) | 78 (21.0) | 14 (17.9) | Government |
| Commuter | 25 (19.7) | 21 (16.9) | 14 (11.7) | 60 (16.2) | 4 (6.7) | Government and transport agencies |
| Industrial | 27 (21.3) | 25 (20.2) | 16 (13.3) | 68 (18.3) | 1 (1.5) | Corporate and industrial actors |
| Commercial | 22 (17.3) | 20 (16.1) | 22 (18.3) | 64 (17.3) | 12 (18.8) | Small businesses and corporations |
| Heritage | 8 (6.3) | 12 (9.7) | 20 (16.7) | 40 (10.8) | 24 (60.0) | Community and cultural actors |
| Neighbourhood | 10 (7.9) | 11 (8.9) | 16 (13.3) | 37 (10.0) | 18 (48.6) | Community organisations |
| Religious | 5 (3.9) | 7 (5.6) | 6 (5.0) | 18 (4.9) | 3 (16.7) | Religious and community institutions |
| Exclusionary | 2 (1.6) | 2 (1.6) | 2 (1.7) | 6 (1.6) | 0 (0.0) | Government and corporate actors |
| Total | 127 (100) | 124 (100) | 120 (100) | 371 (100) | 76 (20.5) | — |

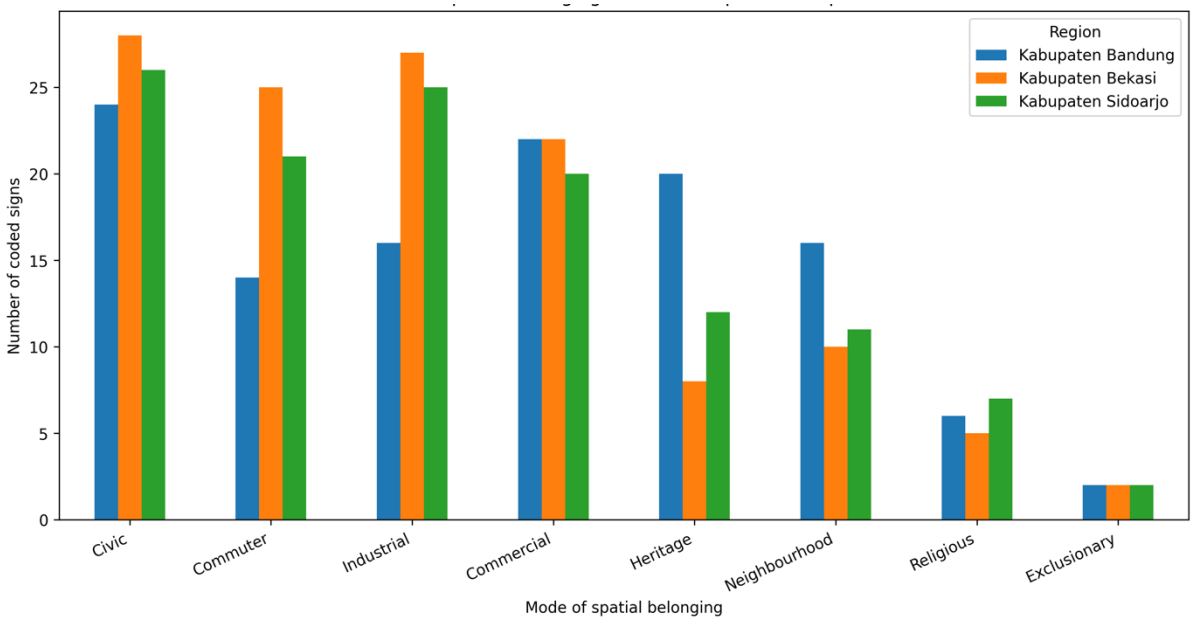


Figure 5. Modes of spatial belonging across metropolitan peripheries

Bekasi's landscape foregrounded civic, industrial, and commuter belonging, which jointly represented 63.0 per cent of its signs. Sidoarjo showed a comparable configuration, although Javanese became more visible in heritage events and neighbourhood communication. Bandung differed most clearly: heritage and neighbourhood signs comprised 30.0 per cent of its corpus, compared with 14.2 per cent in Bekasi and 18.6 per cent in Sidoarjo. Local-language functionality reached 60.0 per cent within heritage signs and 48.6 per cent within neighbourhood signs across all locations, but fell to 1.5 per cent in industrial spaces and 6.7 per cent in commuter settings. This domain contrast parallels earlier findings: the actors possessing regulatory and corporate authority rarely granted local languages equivalent access to permanent, mobility-related, or economically consequential forms of display.

These configurations indicate that spatial belonging is stratified by both communicative domain and sign-producing authority. Civic and commuter signs construct residents primarily as administrative subjects and mobile users, while industrial and commercial signs position them as workers, investors, or consumers. Local languages create stronger forms of collective recognition through heritage motifs, neighbourhood naming, and vernacular address, particularly in Bandung. Yet this recognition often remains spatially bounded, supporting Kim and Ahn's (2023) distinction between cultural celebration and institutional empowerment. Liu's (2023) account of affective place branding also clarifies how local language can generate intimacy or authenticity without redistributing regulatory authority. Read alongside previous patterns, peripheral belonging emerges as unequal semiotic entitlement: languages differ not merely in visibility, but in their capacity to define who belongs, where, and under what social role.

## DISCUSSION

The uneven distribution of linguistic visibility indicates that multilingual presence does not necessarily translate into communicative inclusion. Indonesian dominated governmental and transport domains, while English gained prominence in industrial and commercial spaces, leaving local languages concentrated in heritage and community settings. Functionally, this arrangement supports administrative clarity and metropolitan mobility because shared codes organise regulation, safety, and movement. Yet it also produces a dysfunction: local languages become recognisable without acquiring access to consequential domains. Gorter's (2021) distinction between multilingual presence and inclusive visibility is relevant, as is Kim and Ahn's (2023) account of heritage celebration alongside linguistic marginalisation. This study extends those insights by showing that inequality is not only a matter of absence, but of restricted functional range. A language may be visible, resonant and culturally valued while remaining peripheral to regulation, infrastructure, and economic authority. Visibility therefore operates as an institutional resource rather than an indicator of diversity.

This pattern is best explained by the structural differentiation of metropolitan peripheries into administrative, mobility, industrial, and cultural zones. Languages are selected according to institutional purpose, audience

expectation, and the symbolic economy attached to each domain. Indonesian carries state legitimacy and broad intelligibility, making it the default code for official and transport communication. English indexes corporate modernity, global connectivity, and investment-oriented aspiration, particularly in industrial environments. Local languages, by contrast, are assigned to domains where authenticity, familiarity, and cultural memory are valued. Lam's (2023) centre–periphery framework helps explain this scalar ordering, while Liu's (2023) analysis of affective city branding clarifies why local language can be mobilised symbolically without regulatory authority. Fedorova and Nam (2023) similarly show that multilingual enclaves may persist within broader regimes of dominance. The correlation between domain and language therefore reflects institutional expectations about which linguistic resources are legitimate, efficient, prestigious, or emotionally persuasive in public space.

The distribution of authoritative language access reveals that inequality is produced through control over sign-making, not merely through language choice. Governmental actors secured Indonesian's regulatory legitimacy, corporate actors elevated English in industrial and commercial settings, and community actors provided locally authoritative signs. Functionally, institutions use recognisable codes to stabilise service delivery, corporate identity, and community affiliation. Its dysfunction lies in the unequal durability and reach of those functions. Community-produced local-language signs were often temporary, event-based, or spatially limited, whereas governmental and corporate signs were permanent and consequential. Gorter (2021) and Hong et al. (2023) support the view that public language distributions reproduce broader social hierarchies. Yet Bandung complicates a simple dominance model because Sundanese entered small-business and selected civic signs more consistently. This variation suggests that local-language authority can expand where community, commercial, and institutional interests overlap, even though such expansion does not eliminate structural asymmetry across metropolitan domains generally.

Underlying this pattern is unequal access to material, legal, and organisational resources required to produce durable public signs. Government agencies control regulatory surfaces, official buildings, transport systems, and civic infrastructures; corporations control industrial estates, commercial façades, and branded environments; communities typically control festivals, neighbourhood events, and local cultural spaces. Sign authority therefore follows institutional ownership and spatial jurisdiction. Nie et al. (2021) emphasise multifactor analysis because language visibility emerges from intersecting forces rather than isolated preferences. Napu (2024) further shows that translation practices mediate accessibility, while Sudarmanto et al. (2025) demonstrate that public signage can support preservation when institutional structures incorporate local languages. The present pattern indicates that preservation cannot rely on symbolic display alone. Where local languages lack access to permanent, regulatory, and economically meaningful signage, their public authority remains fragile. The observed hierarchy thus reflects resource distribution, governance arrangements, and uneven opportunities to institutionalise multilingualism across metropolitan space.

The spatial-belonging patterns show that public language does more than identify places; it allocates social roles within them. Civic and commuter signs position people as residents, service users, and mobile subjects; industrial and commercial signs position them as workers, consumers, or investors; heritage and neighbourhood signs position them as members of culturally rooted communities. This differentiation enables multiple forms of urban participation. Yet it fragments belonging by assigning linguistic groups to unequal roles. Local languages were strongest in heritage and neighbourhood domains but weakest in industrial and commuter spaces, suggesting that cultural belonging was more accessible than infrastructural or economic belonging. Benu et al. (2025) show how signage mediates identity, while Wulandari et al. (2026) highlight the importance of spatial imagination in representing place. This study adds that belonging becomes unequal when some languages define memory and intimacy, whereas others define movement, administration, and metropolitan opportunity across peripheral space.

This unequal allocation of belonging can be traced to competing models of peripheral urbanism. Bekasi and Sidoarjo were organised through mobility, logistics, industry, and administrative expansion, so belonging was articulated through efficiency, regulation, and economic participation. Bandung displayed stronger heritage and neighbourhood orientations, allowing Sundanese to enter civic and commercial domains visibly. These differences do not imply fixed regional essences; rather, they reflect the interaction of economic structure, policy discourse, local identity, and sign-producing authority. Liu's (2023) work on affective cityscapes explains how branding converts cultural symbols into place value, while Kim and Ahn (2023) caution that symbolic recognition may coexist with marginalisation. The findings support both positions: local language can strengthen attachment and public recognition, yet its institutional effect depends on where it appears and who authorises it. Spatial belonging is relational and hierarchical, produced through alignment of language, actor, domain, and material permanence rather than through visibility alone.

## CONCLUSION

This study shows that linguistic inequality in Indonesian metropolitan peripheries is produced not simply by unequal language frequencies, but by unequal access to consequential visibility. Indonesian dominated administrative and mobility-oriented spaces, English gained authority in industrial and commercial domains, and local languages were concentrated in heritage, neighbourhood, and selected civic settings. The principal lesson is that public recognition must be assessed through function, authorship, permanence, and spatial domain rather than presence alone. By combining a linguistic visibility matrix, a sign-authority grid, and a spatial belonging protocol, this study advances a relational framework linking language, institutional power, and urban membership locally.

This study remains limited by reliance on publicly accessible signs and official visual materials, which cannot fully capture residents' subjective experiences, informal language practices, or changes across time. Its comparative design prioritises three metropolitan peripheries and therefore cannot represent Indonesia's wider urban diversity. Future research should integrate interviews, walking ethnography, geotagged photography, and participatory mapping to examine how linguistic visibility is perceived, negotiated, and contested by different communities. Comparative work across additional peripheral cities should also test whether industrialisation, migration, tourism, or decentralised language policy produce similar hierarchies, while policy-oriented studies could assess how multilingual signage guidelines affect institutional inclusion.

## REFERENCES


Assyabani, R. (2025). Multimodal poetics in digital literature: A corpus-based analysis of visual-verbal design, screen-based textuality, and reader interaction. *Lingua Technica: Journal of Digital Literary Studies, 1*(1), 41–53. https://doi.org/10.64595/cy0q2n14

Badan Pusat Statistik Kabupaten Bekasi. (2025). *Kabupaten Bekasi dalam angka 2025*. Badan Pusat Statistik Kabupaten Bekasi.

Badan Pusat Statistik Kabupaten Sidoarjo. (2026, March 6). *Pertumbuhan ekonomi Kabupaten Sidoarjo tahun 2025*. Badan Pusat Statistik Kabupaten Sidoarjo.

Benu, N. N., Artawa, K., Purnawati, K. W., Widya, K., & P. (2022). Local language vitality in Kupang City, Indonesia: A linguistic landscape approach. *Cogent Arts & Humanities, 10*. https://doi.org/10.1080/23311983.2022.2153973

Benu, N. N., Sudarmanto, B. A., Wahyuni, T., Susilastri, D., Rosita, E., Mahmud, A., & Yono, S. (2025). The culinary linguistic landscape of Kupang City, Indonesia: Unraveling identity through sign boards. *Cogent Arts & Humanities, 12*. https://doi.org/10.1080/23311983.2025.2449735

Fedorova, K., & Nam, H. (2023). "Multilingual islands in the monolingual sea": Foreign languages in the South Korean linguistic landscape. *Open Linguistics, 9*. https://doi.org/10.1515/opli-2022-0238

Gorter, D. (2021). Multilingual inequality in public spaces: Towards an inclusive model of linguistic landscapes. In *Multilingualism in public spaces*. Bloomsbury Academic. https://doi.org/10.5040/9781350186620.ch-001

Hong, S.-Y., Kim, Y., & Lee, Y.-H. (2023). Ethnic segregation on linguistic landscapes. *Environment and Planning B: Urban Analytics and City Science, 50*, 1916–1931. https://doi.org/10.1177/23998083221150240

Kim, T.-S., & Ahn, J.-S. (2023). Celebrating local heritage while marginalizing local language: The multilingual linguistic landscapes of Seongsu-dong in Seoul. *International Journal of Multilingualism, 22*, 517–535. https://doi.org/10.1080/14790718.2023.2260423

Lam, P. W. Y. (2023). A multi-sited analysis of the linguistic landscape of Hong Kong through a center–periphery approach. *World Englishes*. https://doi.org/10.1111/weng.12625

Liu, Z. (2023). Liminalising and affectivising cityscape as a branding practice: A sociolinguistic ethnography in urban China. *Journal of Multilingual and Multicultural Development, 46*, 815–832. https://doi.org/10.1080/01434632.2023.2215720

Mubarok, Y., Sudana, D., Nurhuda, Z., & Yanti, D. (2024). Linguistic landscape in the tourist area, Lembang Bandung, Indonesia. *World Journal of English Language, 14*(2), 230. https://doi.org/10.5430/wjel.v14n2p230

Nadifah, S. A. (2025). Language, code, and platform-mediated textuality in electronic literature. *Lingua Technica: Journal of Digital Literary Studies, 1*(1), 28–40. https://doi.org/10.64595/80xngp06

Napu, N. (2024). Linguistic landscapes in multilingual urban settings: Insights from translation perspectives. *Studies in English Language and Education, 11*(1). https://doi.org/10.24815/siele.v11i1.29559

Nie, P., Yao, J., & Tashi, N. (2021). Mapping the linguistic landscape from a multi-factor perspective: The case of a multi-ethnolinguistic city in China. *International Journal of Multilingualism, 20*, 231–249. https://doi.org/10.1080/14790718.2021.1898620

Suaidi. (2025). Reader participation, platform affordances, and interactive meaning-making in online literary environments. *Lingua Technica: Journal of Digital Literary Studies, 1*(1), 54–66. https://doi.org/10.64595/9gy6p728

Sudarmanto, B. A., Benu, N. N., Wahyuni, T., Aji, E. N. W., Kurnia, N., Mulyanah, A., Purba, A., Djuwarijah, S., Istiana, I., & Utami, R. E. (2025). Language preservation through public signage: Analyzing the linguistic landscape of the Indonesia–Timor Leste border. *Forum for Linguistic Studies, 7*(4). https://doi.org/10.30564/fls.v7i4.9052

Wulandari, F. D., Pincay, R. F. G., & Rifai, D. M. (2026). Digital literary cartography and colonial space: Re-mapping spatial imaginations in *Robinson Crusoe* and *Max Havelaar*. *Lingua Technica: Journal of Digital Literary Studies, 2*(1), 68–85. https://doi.org/10.64595/lingtech.v2i1.135

Wulandari, I., Khristianto, K., & Arbain, A. (2022). A linguistic landscape of an Indonesian metropolitan spot: A glimpse over Braga. *Berumpun: International Journal of Social, Politics, and Humanities, 5*(1). https://doi.org/10.33019/berumpun.v5i1.93