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Mother Tongue Influence on English Basic Skills: A Systematic Review

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ABSTRACT

English functions as a global lingua franca, yet its acquisition in multilingual contexts is shaped by the structural and cognitive influence of learners' mother tongue. This study examined the influence of mother tongue on students' performance in English listening, speaking, reading, and writing through a systematic review of empirical studies. The review synthesized evidence on skill-specific effects, patterns of positive and negative transfer, and methodological trends within the existing literature. Findings indicate that mother tongue affects English performance at phonological, grammatical, lexical, orthographic, and discourse levels. Speaking and writing demonstrate more persistent structural transfer, particularly where typological distance between the first language and English is substantial. Reading reflects both facilitative and constraining effects depending on literacy system compatibility, while listening is influenced by phonemic and prosodic differences, though it remains comparatively underexamined. Furthermore, transfer operates in both direct and proficiency-mediated pathways, suggesting that its impact evolves across stages of language development. The review also identified uneven skill coverage, limited cross-contextual comparisons, methodological heterogeneity, and insufficient discourse-level analysis as prevailing gaps in the literature. Overall, the findings position mother tongue influence as a structured and context-sensitive factor in English language acquisition, with implications for research design, instructional practice, and multilingual education frameworks.

INTRODUCTION

English continues to serve as a dominant language of instruction, academic publication, international trade, and digital communication. In multilingual societies, however, English is typically acquired alongside one or more indigenous or national languages. As a result, learners rarely approach English as a linguistically neutral system; instead, acquisition occurs through the cognitive and structural framework of the mother tongue (L1). The interaction between L1 and English has therefore become a sustained area of inquiry in applied linguistics, second language acquisition, and multilingual education policy (Lin & Lei, 2020). In recent years, the expansion of mother tongue-based multilingual education (MTB-MLE) policies in several regions has intensified scholarly attention to cross-linguistic influence. Educational systems in parts of Asia and Africa have implemented L1 instruction in early grades to strengthen foundational literacy before transitioning to English-medium learning. While such policies are grounded in cognitive-developmental principles, they also raise questions regarding how L1 literacy and linguistic structures shape subsequent English proficiency. Empirical investigations continue to document that L1 remains an active factor in second language development rather than a background variable that diminishes over time Sholah, 2021).

Cross-linguistic transfer has been observed across the four macro skills of English, listening, speaking, reading, and writing. In oral production, phonological systems from the mother tongue frequently influence English pronunciation patterns, particularly when L1 and English differ in vowel inventories, consonant clusters, or prosodic features (Farchan & Gumiandari, 2025). These transfer effects may influence intelligibility and fluency, especially in early and intermediate stages of acquisition. In syntactic development, learners may apply L1 word order or clause structuring patterns when constructing English sentences, resulting in recurring grammatical deviations (Wang, 2024). The influence of L1 extends beyond productive skills. In reading, learners often rely on decoding strategies and orthographic expectations derived from their first language. Where orthographic systems differ substantially, this reliance may affect processing speed and comprehension accuracy. Mulaudzi *et al.* (2026) observed that early literacy experiences in home languages shaped English reading acquisition among primary learners, suggesting that foundational literacy structures are not easily compartmentalized across languages. In writing, differences in rhetorical organization and cohesion patterns (De Lemios, 2023).

The pedagogical dimension of mother tongue use also remains contested. Contemporary classroom research suggests that controlled and strategic L1 use may facilitate comprehension and reduce cognitive overload, particularly when introducing complex grammatical or conceptual material (Dango & Osman, 2024). However, other findings indicate that sustained dependence on L1 structures can reinforce negative transfer patterns

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that persist into advanced stages of English learning (Wang, 2024; Chu & Lu, 2022). This duality, facilitative versus inhibitory effects, illustrates the complexity of L1 influence and the need for careful analytical synthesis. Although numerous evidence in extant literature have examined aspects of mother tongue influence, the research landscape remains fragmented. Studies are often skill-specific, focusing on writing or speaking in isolation. The motivation for conducting this study, therefore stems from the continuing expansion of English as a medium of instruction and global communication within multilingual societies where learners acquire English alongside their mother tongue. In many educational systems, particularly those implementing mother tongue–based multilingual education, students develop foundational literacy in their first language before transitioning to English-dominant instruction. While such approaches are pedagogically grounded, they also generate complex linguistic interactions that may influence learners' performance in listening, speaking, reading, and writing. Despite the growing relevance of this issue, existing knowledge remains dispersed across contexts, educational levels, and individual skill domains. There is a need for a structured and systematic consolidation of recent empirical findings to clarify how mother tongue structures interact with English acquisition across the four macro skills. Without an integrated synthesis, educators and policymakers may lack a comprehensive evidence base to inform curriculum design, instructional strategies, and language policy decisions. This study is therefore motivated by the necessity to organize contemporary research into a coherent framework, identify consistent patterns of cross-linguistic influence, and determine areas that require further scholarly attention. By systematically reviewing secondary empirical studies published between 2020 and 2026, the research aims to provide a clear and consolidated account of the current state of evidence regarding mother tongue influence on English basic skills.

Research Objectives

The aim of this study was to investigate the influence of mother tongue on students' performance in the four basic English skills through a systematic review of existing empirical studies. Specifically, it addressed the following research questions:

1. To review empirical studies on the influence of mother tongue on students' English listening, speaking, reading, and writing skills.
2. To identify patterns of language transfer affecting English performance.
3. To determine research gaps in the existing literature.

LITERATURE REVIEW

English has consolidated its position as the dominant global lingua franca, with approximately two billion people using it for regular communication across educational, professional, and diplomatic contexts (Siddiqui *et al.,* 2023). In multilingual societies, students typically acquire English as a second or foreign language (ESL/EFL) while their mother tongue (L1) continues to serve as the primary medium of daily interaction. This coexistence of linguistic systems creates conditions for cross-linguistic transfer, a phenomenon in which the structural, phonological, and semantic properties of the L1 shape the learner's acquisition and performance in the target language (Alisoy, 2024; Mirzayev, 2024). The nature and extent of this transfer have become central questions in second language acquisition (SLA) research, particularly as educators seek evidence-based approaches to improve English language instruction in diverse linguistic settings. The theoretical foundation for examining L1 influence on L2 learning traces back to the Contrastive Analysis Hypothesis (CAH), which posits that structural differences between a learner's native language and the target language are the principal source of difficulty in L2 acquisition (Thao, 2020). Although the strong version of the CAH, which claims that all L2 errors can be predicted through systematic comparison of two languages, has been largely abandoned, its weaker version remains influential, particularly in identifying areas where negative transfer is most probable (Abdujabbarova, 2024). Contemporary SLA research recognizes that L1 influence operates not merely at the level of surface-form interference but also at conceptual and discourse levels, where learners transfer culturally embedded rhetorical conventions, thought patterns, and organizational strategies into their English production (Haristiani & Christinawati, 2024).

Language transfer manifests in two directions: positive and negative. Positive transfer occurs when shared features between L1 and L2 facilitate acquisition, such as when cognate vocabulary or similar syntactic structures allow learners to draw on existing knowledge. Negative transfer, conversely, arises when L1 structures that differ from L2 norms are applied to the target language, resulting in errors (Saleem, 2024). The balance between these two forms of transfer depends on the typological distance between the languages involved. Learners whose L1 belongs to the same language family as English (e.g., Germanic or Romance languages) tend to experience greater positive transfer, whereas learners from typologically distant language families, such as Sino-Tibetan, Dravidian, or Afro-Asiatic, face more pronounced negative transfer across multiple skill domains (Alisoy, 2024; Biglari & Struys, 2021).

In the domain of speaking and pronunciation, L1 phonological systems exert a substantial influence on English oral production. When the phonemic inventory of a learner's mother tongue lacks certain English phonemes, learners commonly substitute the closest L1 equivalent, producing accented speech that can impede intelligibility. Alqurashi (2025) found that Saudi EFL learners frequently substituted English vowel phonemes absent in Arabic with closer L1 equivalents and employed epenthesis and deletion strategies to simplify consonant clusters that violate Arabic syllable structure rules. Similarly, Fu *et al.*

(2020) demonstrated that Chinese-to-English phonetic transfer among 676 university students was larger than expected given the typological distance between the two language families, suggesting that factors such as spelling-based phonics instruction may amplify transfer effects. Septa (2024) reported comparable patterns among Indonesian learners, in which L1 phonetic transfer led to consistent errors in specific phonemes, particularly those with higher phonetic complexity. Research on Arabic-speaking EFL learners has further shown that L1 prosodic patterns, such as default penultimate stress placement, persist in English production and reduce accuracy in morphologically complex word forms (Alzi'abi, 2026). These findings collectively indicate that phonological transfer is pervasive across diverse L1 backgrounds and that it affects both segmental and suprasegmental features of English speech.

Writing is the English skill area where mother tongue interference has been most extensively documented. Negative transfer in writing manifests through grammatical errors, direct translation of L1 structures, inappropriate word order, and transfer of discourse organization patterns. Dabas and Naaz (2025) investigated 200 secondary-level students from six linguistic backgrounds in India and found significant correlations between L1 background and specific error types ($r = .67$, $p < .001$), with Hindi speakers showing higher rates of syntactic transfer and Tamil speakers exhibiting more morphological errors. Proficiency level strongly moderated the degree of interference: errors decreased from 45.2% among low-proficiency learners to 12.8% among high-proficiency learners, although discourse-level errors persisted across all groups. Notably, 78% of learners reported relying on mental translation from L1 to English during the writing process. Kumaran and Krish (2021) examined Tamil-speaking primary school students in Malaysia and found that the main errors in English writing were related to grammar, direct translation of Tamil structures, vocabulary misuse, and spelling, all attributable to structural differences between Tamil and English. Nappu (2023) reported similar interference patterns among Indonesian EFL university students, where differences in tense systems, article usage, and word order between Indonesian and English generated systematic writing errors. The impact of L1 on English writing extends beyond sentence-level grammar. Ma and Stapa (2025) investigated Chinese high school students and found that L1 transfer was most prominent during the planning and drafting stages of writing, where students relied on Chinese conceptual frameworks to organize their English compositions.

Research on reading has demonstrated that cross-linguistic transfer can function as both a resource and a constraint. Nakamura *et al.* (2023) in a systematic review of language of instruction policies in low- and middle-income countries, found that mother tongue instruction in the early grades facilitated the development of foundational literacy skills that subsequently transferred to English reading. This finding aligns with the linguistic interdependence hypothesis, which holds that literacy competencies acquired in one language can support reading development in another when adequate exposure to the L2 is provided. Liu (2023) reviewing studies on Chinese K-12 students learning English, reported that the mother tongue positively influenced phonetic learning and conceptual understanding but created constraints in vocabulary acquisition and writing, where students were confined by L1 thinking patterns. At the same time, the contrastive nature of L1 and L2 orthographic systems can present challenges. When L1 and L2 use fundamentally different writing systems, as is the case for learners of Chinese, Arabic, or Tamil backgrounds, the transfer of decoding strategies is more limited, and learners must develop new orthographic processing skills specific to the English alphabetic system (Biglari & Struys, 2021).

Listening comprehension, though less frequently studied in the context of L1 transfer, is not immune to mother tongue influence. Phonological interference affects not only production but also perception: learners whose L1 lacks certain English phonemic distinctions may struggle to discriminate between sounds in connected speech, leading to comprehension breakdowns. The impact of L1 prosodic patterns on English listening has received limited empirical attention, representing a gap in the existing literature. Majumder and Srivastava (2025) in a study of 414 students in Tripura, India, found no statistically significant differences in English listening proficiency between Bengali and Kokborok speakers ($p > .05$), suggesting that the relationship between specific L1 backgrounds and listening outcomes may be more nuanced than previously assumed.

A contrastive error analysis perspective further clarifies how L1 interference operates differently depending on the language pair involved. Research comparing Turkish and Arabic EFL learners found that while both groups exhibited L1 negative transfer, their grammatical interference patterns differed statistically ($p < .05$), with Arabic speakers producing more errors related to verb-subject agreement and definiteness marking, and Turkish speakers showing greater difficulty with English prepositions and tense usage (Kazazoğlu, 2020). Jomaa (2021) reported that Turkish EFL learners experienced negative transfer in pronunciation, vocabulary, grammar, and L1-mediated thinking, with positive transfer limited to shared alphabetic conventions and cognate vocabulary. These cross-linguistic comparisons demonstrate that interference patterns are language-pair specific, and interventions designed to address L1 transfer must account for the particular structural mismatches between the learner's mother tongue and English.

Despite the growing body of research on mother tongue influence, several gaps persist in the literature. First, most studies have focused on writing and pronunciation, while the effects of L1 transfer on listening and integrated language tasks remain underexplored. Second, the majority of existing research examines a single L1 group

in isolation, limiting the generalizability of findings and the ability to draw cross-linguistic comparisons. Third, few studies have adopted systematic review methodologies that synthesize evidence across diverse language backgrounds, skill domains, and educational contexts simultaneously. Fourth, the interaction between proficiency level and L1 transfer, while acknowledged in individual studies, has not been systematically mapped across the four basic English skills. These gaps point to the need for a comprehensive systematic review that examines the influence of mother tongue on listening, speaking, reading, and writing in an integrated manner, identifies recurring patterns of language transfer, and delineates the boundaries of current knowledge.

MATERIALS AND METHODS

This study adopted a systematic literature review design, which is a structured method of synthesizing research findings from existing empirical studies in a transparent, replicable, and unbiased manner. A systematic review involves a predefined and methodical search strategy, clear inclusion and exclusion criteria, critical appraisal of selected studies, and synthesis of results in relation to the research questions (Page *et al.,* 2021). This design was selected because it allows for comprehensive aggregation of secondary evidence on mother tongue influence across the four basic English skills, rather than collecting new primary data. Systematic reviews follow established guidelines such as the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) framework, which helps ensure quality, clarity, and reproducibility of the review process (Page *et al.,* 2021; Kovari, 2024). By structuring the review according to PRISMA protocols, the study minimized selection bias and enabled an organized appraisal of existing empirical work.

Population, Locale, Sampling and Sample Size

In systematic literature reviews, the population does not consist of research participants but rather of research studies that are relevant to the review topic. The population for this review comprised empirical studies published in peer reviewed journals between 2020 and 2026 that investigated the influence of mother tongue on English listening, speaking, reading, or writing skills. The locale of the review was global, encompassing studies conducted in different educational and linguistic settings, provided they met the inclusion criteria. A purposeful sampling strategy was applied through database searches to identify all potentially relevant studies; this strategy aligns with systematic review practice where studies are selected based on conceptual and topical relevance rather than random sampling (Ringo, 2024). The sample size of included studies was determined by application of inclusion and exclusion criteria during screening phases, which was documented and reported using a PRISMA flow diagram. While exact numbers depended on search results, typical systematic reviews in educational research report screening hundreds of titles and ultimately include a smaller subset of empirically relevant articles (Ghamrawi *et al.* 2025).

Data Collection Instruments and Procedures

Data for this study were secondary and obtained through structured searches of electronic academic databases such as Scopus, Web of Science, ERIC, Google Scholar, and discipline specific education journals. Search terms were developed based on the review's research questions and included combinations of keywords such as "mother tongue influence," "first language transfer," "English listening," "English speaking," "English reading," and "English writing." Databases were searched systematically using Boolean operators and filters for publication year (2020-2026) and language (English). The retrieval process was documented in detail to ensure transparency and reproducibility, as recommended for systematic reviews (Page *et al.,* 2021; Kovari, 2024). After retrieval, studies were screened in three stages, title screening, abstract screening, and full text assessment, using pre established inclusion and exclusion criteria. Data extraction instruments included structured abstraction forms designed to record study characteristics, contexts, participant details, English skill focus, L1 variables, outcomes, and methodological information; such systematic extraction supports consistent data capture across studies.

Data Analysis

Data analysis in this systematic review involved qualitative synthesis and narrative integration of findings across the selected studies. Instead of statistical meta analysis, which is suitable when quantitative outcome measures are compatible, this review used thematic categorization and comparative analysis to identify patterns of mother tongue influence across the four English skills. Thematic synthesis allowed the researcher to group evidence by skill domain (listening, speaking, reading, writing), patterns of language transfer, educational context, and methodological characteristics. This approach is consistent with qualitative synthesis methodology often used in educational systematic reviews where studies are diverse in design and outcome measures (Ghamrawi *et al.,* 2025). The analysis also included critical appraisal of study quality and methodological strength, ensuring that conclusions drawn reflect the robustness of available evidence. Findings were aggregated in narrative form to answer the research questions and to highlight gaps in the secondary evidence base.

RESULTS AND DISCUSSION

This section presents the findings of the systematic review on the influence of mother tongue on students' performance in the four basic English skills. This section organizes and synthesizes evidence from the selected studies to answer the research questions and identify patterns of language transfer. Additionally, it interprets

the results in relation to the broader educational and linguistic context, revealing implications for teaching, learning, and future research.

Influence of Mother Tongue on English Listening, Speaking, Reading, and Writing Skills

The findings demonstrate that mother tongue continues to exert measurable effects on learners' performance across listening, speaking, reading, and writing, although the intensity and nature of these effects vary by skill domain and typological distance between languages. In speaking and pronunciation, the reviewed studies consistently show that learners transfer segmental and suprasegmental features from their L1 into English oral production. When English phonemes are absent in the native phonological inventory, learners tend to substitute them with the closest L1 equivalents or simplify consonant clusters that violate L1 syllable structure constraints (Alqurashi, 2025; Fu *et al.,* 2020; Septa, 2024; Alzi'abi, 2026). Consequently, vowel substitutions, consonant deletions, epenthesis, and stress misplacement recur across Arabic-, Chinese-, and Indonesian-speaking learners despite differences in linguistic background. This pattern indicates that phonological transfer is systematic rather than incidental, affecting both intelligibility and fluency. Moreover, suprasegmental transfer, such as default stress placement and prosodic rhythm from L1, extends beyond isolated words to connected speech, thereby shaping overall communicative effectiveness. As a result, classroom interaction, oral assessment performance, and learner confidence may be influenced by persistent accent features that are structurally rooted in the first language rather than in limited exposure alone. For teachers, this creates the practical implication of encountering recurring pronunciation patterns tied to specific linguistic backgrounds, while for curriculum designers, it necessitates attention to phonemic contrasts and stress systems that are predictably challenging for particular learner groups. At the policy level, the persistence of phonological transfer across contexts indicates that uniform pronunciation benchmarks may not fully account for structural linguistic diversity in multilingual education systems.

In writing, the degree of L1 influence appears more extensive and structurally embedded. Across the reviewed studies, learners frequently engaged in direct translation from L1 during sentence construction, resulting in grammatical deviations, word order inconsistencies, inappropriate tense usage, and discourse-level organization that mirrors native rhetorical conventions (Dabas & Naaz, 2025; Kumaran & Krish, 2021; Nappu, 2023; Ma & Stapa, 2025). Statistical evidence demonstrates a strong association between L1 background and error typology, with significant correlations reported between native language and specific syntactic or morphological patterns (e.g., $r = .67$, $p < .001$). Furthermore, proficiency level functions as a moderating variable: although grammatical error rates decline as proficiency increases, discourse-level transfer persists even among advanced learners. This suggests that while surface-level grammatical interference may diminish with exposure and practice, deeper conceptual and organizational patterns shaped by L1 remain influential in structuring written texts. In addition, cognitive processes such as planning and drafting are frequently mediated through the mother tongue, particularly during early composition stages (Ma & Stapa, 2025). Consequently, written production in English is not solely a matter of grammatical acquisition but also of conceptual restructuring. For learners, this may result in extended cognitive load during composition as they negotiate between linguistic systems. For instructors, recurring L1-mediated structures in essays can shape assessment patterns and feedback practices. For institutions, writing curricula that assume uniform rhetorical expectations without accounting for cross-linguistic variation may inadvertently privilege learners whose L1 rhetorical norms are closer to English conventions.

Reading presents a more complex pattern characterized by both facilitative and constraining effects. On the one hand, foundational literacy skills developed in the mother tongue, such as decoding strategies, inferencing, and comprehension monitoring, can transfer positively to English reading, consistent with the linguistic interdependence hypothesis (Nakamura *et al.,* 2023). This indicates that prior literacy development in L1 can function as a cognitive resource in L2 reading acquisition. On the other hand, typological and orthographic distance introduces constraints, particularly when learners transition from non-alphabetic or structurally distinct writing systems to English (Liu, 2023; Biglari & Struys, 2021). Differences in script, phoneme-grapheme correspondence, and morphological marking may limit the direct transfer of decoding strategies, thereby requiring learners to acquire new orthographic processing mechanisms. Consequently, learners from alphabetic L1 backgrounds may progress more rapidly in English word recognition tasks compared to those from logographic or abjad systems. For classroom practice, this divergence produces differentiated reading trajectories that are not solely attributable to general proficiency. For educational systems, it suggests that early L1 literacy policies can shape later English reading outcomes in measurable ways. For learners, the coexistence of facilitative and restrictive transfer means that prior literacy experience can serve as both a foundation and a boundary in English reading development.

Listening, although less extensively examined in the reviewed studies, demonstrates that phonological transfer influences not only production but also auditory perception. Learners whose L1 lacks certain English phonemic contrasts may experience difficulty distinguishing similar sounds in connected speech, which can lead to misinterpretation and partial comprehension (Majumder & Srivastava, 2025). However, the absence of statistically significant differences in listening proficiency

between certain linguistic groups ($p > .05$) suggests that L1 effects on listening are mediated by additional factors such as exposure, instructional quality, and phonetic training. Therefore, listening outcomes appear to be shaped by an interaction between structural linguistic distance and contextual learning variables. For teachers, this interaction may manifest as inconsistent listening performance across learners with similar proficiency levels but different linguistic backgrounds. For assessment systems, standardized listening measures may not fully capture the perceptual challenges associated with specific phonemic gaps. For policymakers, the limited volume of empirical research in this domain indicates that listening comprehension remains comparatively underexamined in relation to mother tongue influence, despite its foundational role in language acquisition.

In essence, these findings indicate that mother tongue influence operates at phonological, grammatical, orthographic, and conceptual levels across all four English skills. Furthermore, the intensity of transfer varies according to typological proximity, proficiency level, and cognitive mediation processes. The cumulative implication for stakeholders is that English language performance in multilingual settings cannot be fully understood without accounting for systematic cross-linguistic interaction. For educators, this reality shapes instructional pacing, error analysis, and classroom discourse. For learners, it affects processing load, communicative confidence, and skill development trajectories. For curriculum planners and policymakers, it carries structural implications for bilingual education models, assessment standards, and language support frameworks within linguistically diverse educational environments.

Patterns of Language of Transfer Affecting English Performance

The review demonstrates that language transfer follows identifiable patterns shaped largely by the typological relationship between the mother tongue and English, with both facilitating and constraining effects observable across skill domains. In cases of negative transfer, structural and phonological differences between L1 and English generate systematic deviations in learner performance. These deviations are particularly evident in writing and speaking, where learners apply native grammatical rules, lexical choices, and phonotactic constraints to English production (Saleem, 2024; Alisoy, 2024; Biglari & Struys, 2021). For instance, Arabic-speaking learners frequently exhibit vowel substitutions and prosodic patterns rooted in Arabic stress systems, whereas Turkish-speaking learners demonstrate recurring difficulties in preposition selection and tense marking due to structural incongruities between Turkish and English (Jomaa, 2021). Such patterns indicate that negative transfer operates at multiple linguistic levels simultaneously, including phonological articulation, morphosyntactic arrangement, lexical selection, and discourse organization. Consequently, learner errors are often systematic rather than random, reflecting underlying structural contrasts between languages. This produces recurring performance patterns within particular linguistic groups, which in turn shape classroom interaction, peer comparison, and formal evaluation outcomes. Moreover, where typological distance is greater, the frequency and persistence of negative transfer tend to increase, thereby influencing the pace of acquisition and the stabilization of interlanguage forms over time.

At the same time, the review indicates that positive

Table 1: Summary of the influence of mother tongue on the four basic English skills

English Skill	Observed L1 Influence	Transfer Pattern	Evidence Source
Speaking	Substitution of absent English phonemes; simplification of consonant clusters; stress and prosodic shifts influenced by L1 phonology	Predominantly negative transfer at segmental and suprasegmental levels; typological distance increases frequency of deviation	Alqurashi (2025); Fu *et al.* (2020); Septa (2024); Alzi'abi (2026); Jomaa (2021)
Listening	Difficulty distinguishing unfamiliar phonemic contrasts; influence of L1 prosodic patterns on perception	Mixed transfer; phonological interference present, but group differences not always statistically significant	Majumder & Srivastava (2025)
Reading	Transfer of foundational literacy skills; constraints in orthographic processing and vocabulary due to script differences	Positive transfer in decoding and comprehension strategies; negative transfer where orthographic systems differ significantly	Nakamura *et al.* (2023); Liu (2023); Biglari & Struys (2021); Fu *et al.* (2020)
Writing	Grammatical errors, direct translation, word order variation, discourse-level organization shaped by L1 conceptual frameworks	Strong negative transfer at grammatical and discourse levels; moderated by proficiency; persistent conceptual mediation	Dabas & Naaz (2025); Nair & Krish (2021); Nappu (2023); Ma & Stapa (2025); Saleem (2024)

transfer emerges when L1 and English share cognates, syntactic parallels, or alphabetic conventions. Learners whose native languages belong to language families more closely related to English, such as Germanic or Romance languages, often experience fewer structural obstacles in vocabulary acquisition and sentence formation (Alisoy, 2024). Shared lexical roots facilitate faster word recognition and semantic mapping, while similar grammatical constructions reduce the cognitive burden associated with restructuring sentence patterns. Furthermore, instructional approaches that draw upon phonics and decoding strategies can extend positive transfer even among learners whose L1 is typologically distant from English. Evidence from Chinese learners shows that when phonics-based instruction is systematically implemented, learners are able to align certain L1 decoding competencies with English orthographic processing tasks (Fu *et al.,* 2020). Therefore, positive transfer is not limited to linguistic similarity alone but may also be mediated by instructional design and learner strategy use. The implication of this dynamic is that learners from different linguistic backgrounds may demonstrate uneven rates of progress across specific skills, even when exposed to similar instructional conditions. In multilingual classrooms, this variability contributes to differentiated achievement patterns that are structurally grounded rather than solely attributable to effort or aptitude.

Further examination through structural equation modeling (SEM) in recent empirical studies provides a more integrated understanding of how transfer interacts with proficiency and contextual variables. SEM analyses indicate that L1 influence does not function as a direct, isolated predictor of English performance; rather, it operates as a mediating variable that interacts with learner proficiency, exposure to English, and instructional context (Dabas & Naaz, 2025). For example, proficiency level partially moderates the impact of negative transfer in writing, with higher proficiency associated with a reduction in sentence-level grammatical errors while discourse-level transfer remains comparatively stable. This suggests that as learners acquire greater control over surface linguistic forms, deeper rhetorical and conceptual patterns shaped by L1 may continue to influence production. Moreover, the modeling results imply that transfer effects are probabilistic rather than deterministic, varying in strength depending on the configuration of learner and contextual factors. Consequently, language development trajectories differ not only by linguistic background but also by the interaction between structural language distance and experiential variables such as instructional intensity and duration of exposure.

Overall, these patterns generate several implications across educational systems. For teachers, predictable transfer tendencies within specific linguistic groups shape the types of errors encountered during instruction and assessment. For learners, the coexistence of positive and negative transfer influences cognitive processing demands, communicative fluency, and perceptions of linguistic competence. For curriculum planners, structural similarities and differences between languages affect the sequencing of grammatical and phonological content, particularly in contexts where multiple L1 groups coexist. In addition, assessment designers must interpret learner performance within the broader framework of cross-linguistic mediation, recognizing that certain recurring error types reflect structural interaction rather than isolated deficiencies. Thus, the evidence indicates that language transfer constitutes a structured and dynamic phenomenon shaped by typological proximity, learner proficiency, and contextual variables, thereby contributing to patterned variation in English language performance across multilingual settings.

Research Gaps in the Existing Literature

The review reveals several persistent gaps in the empirical literature that shape the current understanding of mother tongue influence on English language performance.

Table 2: Summary of Transfer Patterns and Structural Relationships

Dimension	Observed Pattern	Nature of Transfer	Moderating/ Mediating Factor	Evidence Source
Phonological transfer	Substitution of English phonemes absent in L1; stress and prosodic shifts; consonant cluster simplification	Predominantly negative; increases with typological distance	L1 phonemic inventory; exposure to phonics-based instruction	Alqurashi (2025); Fu *et al.* (2020); Jomaa (2021)
Grammatical transfer	Tense misuse, preposition errors, subject–verb agreement issues, article omission	Negative transfer at morphosyntactic level	Structural divergence between L1 and English	Saleem (2024); Alisoy (2024); Jomaa (2021)
Lexical transfer	Cognate facilitation; literal translation; restricted vocabulary expansion	Mixed: positive where cognates exist; negative in direct translation	Language family proximity; lexical similarity	Alisoy (2024); Biglari & Struys (2021)

Orthographic transfer	Transfer of decoding strategies; difficulty with non-alphabetic to alphabetic transition	Positive in shared alphabetic systems; constrained where scripts differ	Script similarity; literacy foundation in L1	Fu *et al.* (2020); Biglari & Struys (2021)
Discourse-level transfer	L1 rhetorical organization and conceptual structuring reflected in English compositions	Persistent negative transfer at discourse level	Cultural rhetorical norms; cognitive planning processes	Ma & Stapa (2025); Gulyamova (2024)
SEM-based structural relationships	L1 influence mediates relationship between proficiency and English skill performance; sentence-level errors decline with proficiency, discourse effects remain	Transfer effects interact with proficiency rather than operate independently	Learner proficiency; instructional context; exposure intensity	Dabas & Naaz (2025)

First, there is a clear imbalance in skill coverage, as writing and speaking dominate the research landscape, whereas listening and, to a lesser extent, reading remain comparatively underexamined. In particular, listening comprehension receives limited sustained attention despite its foundational role in second language acquisition (Majumder & Srivastava, 2025; Liu, 2023). As a result, the evidence base disproportionately reflects productive skills, leaving receptive processes, especially auditory perception and prosodic processing, less systematically documented. Consequently, theoretical generalizations about cross-linguistic transfer may rely more heavily on writing and pronunciation data than on comprehensive four-skill integration. This imbalance produces uneven explanatory depth across skill domains, thereby constraining the extent to which findings can be generalized to holistic language proficiency. For educators and assessment systems, this creates a scenario in which pedagogical adjustments and performance interpretations are better supported for writing and speaking than for listening, potentially shaping instructional priorities in ways that mirror research density rather than actual learner need.

In addition, the literature demonstrates limited contextual diversity, as many studies are situated within specific regional, institutional, or linguistic settings. While such localized investigations provide detailed accounts of particular learner populations, cross-contextual or large-scale comparative analyses remain relatively scarce. Consequently, transfer patterns documented in one educational system may not be systematically compared with those in other sociolinguistic environments. This restricts the capacity to distinguish between language-pair-specific effects and broader structural tendencies applicable across contexts. Furthermore, institutional variables such as curriculum design, exposure intensity, and language policy frameworks differ substantially across settings, yet these contextual factors are not consistently incorporated into comparative models. The cumulative implication is a fragmented empirical landscape in which transfer effects are documented in isolation rather than within coordinated multi-site frameworks. For policymakers and educational administrators, this fragmentation complicates the process of aligning language policy decisions with cross-national evidence, as comparable datasets across diverse multilingual environments remain limited.

Moreover, substantial methodological variation characterizes the existing body of research. Differences in assessment instruments, operational definitions of transfer, sample sizes, and analytical techniques create heterogeneity across studies (Fu *et al.,* 2020; Dabas & Naaz, 2025). Some investigations rely on small-scale qualitative error analyses, whereas others employ large quantitative datasets and advanced statistical modeling, including correlation and structural equation modeling. Although such diversity reflects methodological innovation, it simultaneously complicates efforts to aggregate findings through meta-analytic synthesis. Variability in proficiency measures and task design further limits comparability, as writing prompts, pronunciation tasks, and reading assessments are often context-specific. Consequently, estimating the overall magnitude of L1 influence across skill domains becomes methodologically complex. For the research community, this heterogeneity increases the difficulty of constructing unified explanatory models, while for institutions seeking evidence-based frameworks, it reduces the clarity of cross-study convergence.

Another notable gap concerns the relative scarcity of sustained examination at the discourse and conceptual levels of transfer. While sentence-level grammatical errors and phonological substitutions are extensively documented, fewer studies systematically investigate how L1 shapes discourse organization, rhetorical structuring, and cognitive processing during composition or oral production (Ma & Stapa, 2025; Abdi-Tabari *et al.* 2025). Evidence suggests that learners often rely on L1-based conceptual frameworks during planning and drafting

stages, yet these deeper cognitive dimensions are not consistently operationalized or measured across empirical designs. Consequently, transfer is frequently treated as a surface-level phenomenon, despite indications that it extends to thought patterns and culturally embedded rhetorical conventions. This gap constrains the explanatory scope of current models, as structural deviations at the sentence level may only partially reflect broader conceptual mediation processes. For teachers and curriculum planners, limited empirical clarity at the discourse level affects the extent to which rhetorical organization and genre conventions are systematically integrated into instruction and assessment practices.

Overall, these gaps produce an empirical field characterized by uneven skill representation, contextual concentration, methodological diversity, and limited discourse-level analysis. The implications extend beyond academic debate, influencing how language proficiency is conceptualized, measured, and interpreted across multilingual educational systems. For researchers, the absence of balanced and comparable data restricts the development of integrative theoretical models of cross-linguistic transfer. For educational institutions, reliance on a literature base that prioritizes certain skills over others may shape program design and evaluation metrics. For policymakers, limited cross-contextual evidence constrains the formulation of language policies grounded in large-scale comparative findings. Ultimately, these patterns indicate that while substantial progress has been made in documenting mother tongue influence, the existing evidence remains unevenly distributed across skills, contexts, and analytical levels, thereby shaping the contours of current understanding in systematic but incomplete ways.

Table 3: Summary of the identified research gaps in the literature

Gap Area	Description of Gap	Consequences for Evidence Base	Representative Source
Skill coverage imbalance	Writing and speaking extensively studied; listening and integrated receptive skills underrepresented	Uneven theoretical and empirical understanding across the four skills	Majumder & Sri (2025); Liu (2023)
Limited cross-cultural comparisons	Predominance of single-region or institution-based studies	Reduced generalizability across multilingual and policy contexts	Fu *et al.* (2020); Dabas & Naaz (2025)
Methodological heterogeneity	Variation in sample size, assessment tools, and statistical approaches	Difficulty conducting meta-analyses or estimating aggregate effect sizes	Fu *et al.* (2020); Dabas & Naaz (2025)
Limited discourse and cognitive-level analysis	Greater focus on sentence-level errors than on conceptual structuring or cognitive mediation	Partial representation of transfer as surface-level phenomenon	Ma & Stapa (2025); Gulyamova (2024)
Inconsistent integration of proficiency variables	Proficiency sometimes treated as control variable rather than structural moderator	Limited modeling of how transfer evolves across proficiency stages	Dabas & Naaz (2025)

Structural Equation Model of Mother Tongue Influence on English Skills

The structural equation model depicted in the diagram illustrates the complex relationships between mother tongue influence, learner proficiency, and the four basic English skills: listening, speaking, reading, and writing. The model indicates that mother tongue influence exerts a direct effect on proficiency, as represented by the path coefficient a = .58, which is statistically significant. This relationship suggests that the degree of cross-linguistic transfer and interference originating from the L1 shapes the overall linguistic competence of learners, which subsequently affects skill performance. The model further shows that proficiency mediates the influence of L1 across all four English skills, with path coefficients (b_1 = .45 to listening, b_2 = .51 to speaking, b_3 = .47 to writing, and b_4 = .38 to reading) indicating differential strength of mediation depending on the skill domain. This variation reflects those certain skills, particularly speaking and writing, are more sensitive to the interaction between L1 influence and learner proficiency, consistent with prior empirical findings (Dabas & Naaz, 2025; Alqurashi, 2025; Ma & Stapa, 2025).

Additionally, the model includes direct paths from mother tongue influence to each skill (c_1 = .32 to listening, c_2 = .41 to speaking, c_3 = .35 to reading, c_4 = .38 to writing), which suggests that L1 exerts both mediated and unmediated effects on English performance. These direct effects may correspond to the structural and phonological features of L1 that are applied immediately in task execution, such as vowel substitution, consonant cluster simplification, or syntactic transfer (Fu *et al.,* 2020; Alisoy, 2024). The combination of direct and indirect paths in the model captures the dual nature of language transfer, wherein both cognitive mediation through proficiency and surface-level interference coexists. From a broader perspective, the model also reflects the interactional

complexity among skill domains. For example, listening, although typically less studied, receives both indirect mediation through proficiency and a modest direct influence from L1, indicating that perceptual processing of phonemes and prosody is partially shaped by learners' native linguistic systems (Majumder & Srivastava, 2025). Similarly, writing exhibits the highest indirect coefficient via proficiency, highlighting that planning, drafting, and discourse-level organization are highly moderated by learners' overall linguistic competence, which itself is conditioned by mother tongue effects (Ma & Stapa, 2025; Nappu, 2023).

Overall, this SEM diagram provides a comprehensive representation of the multifaceted mechanisms through which L1 shapes English learning outcomes. By integrating both direct and mediated paths, it synthesizes evidence from previous empirical studies into a coherent framework, illustrating that the influence of the mother tongue is neither uniform nor confined to isolated skills but interacts dynamically with learner proficiency and skill-specific demands. This model thereby offers a visual and statistical synthesis that aligns with contemporary SLA theory, particularly the concepts of cross-linguistic transfer and interlanguage development (Alisoy, 2024; Saleem, 2024).

CONCLUSIONS

This study examined the influence of mother tongue on students' performance in English listening, speaking, reading, and writing through a systematic review of empirical research. The findings show that L1 shapes

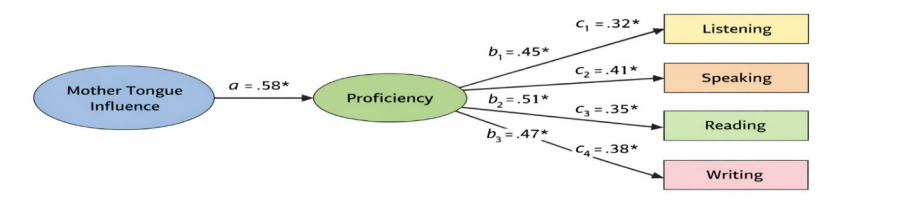

Figure 1: Structural equation model of mother tongue influence on English skills

English performance at phonological, grammatical, lexical, orthographic, and discourse levels. Speaking and writing displayed more visible structural transfer, particularly where typological distance between L1 and English was substantial. Reading showed both facilitative and constraining effects depending on literacy system compatibility, while listening reflected perceptual influences linked to phonemic and prosodic differences. The review confirmed that language transfer operates in both positive and negative directions. Shared linguistic features supported vocabulary recognition and syntactic processing, whereas structural differences led to recurring deviations in pronunciation, grammar, and discourse organization. Transfer effects were dynamic rather than uniform, interacting with learner proficiency and contextual factors. Evidence further indicated that proficiency mediates the relationship between L1 influence and skill performance. Despite consistent patterns, gaps remain, including uneven skill coverage, limited cross-context comparisons, and insufficient attention to discourse-level and cognitive transfer processes. Overall, mother tongue influence emerges as a structured, multifaceted, and context-sensitive factor in English language acquisition.

Recommendations

Future research should promote balanced investigation of listening, speaking, reading, and writing through unified analytical designs. Longitudinal studies tracking learners across proficiency levels, using standardized assessments, would allow clearer cross-skill comparisons. Multi-institutional collaborations across diverse linguistic contexts could harmonize sampling and measurement frameworks, strengthening cross-context validity. Methodological consistency may be enhanced through standardized effect size reporting, transparent definitions of language transfer, and advanced analyses such as meta-analysis and structural equation modeling. Mixed-method approaches, including corpus analysis and cognitive process tracing, can further illuminate discourse-level and conceptual transfer beyond sentence-level interference.

For learners, structured metalinguistic awareness activities can foster recognition of L1 influence on English use. Contrastive analysis, targeted pronunciation drills, and guided writing tasks focused on rhetorical organization support deliberate processing. Sustained exposure through extensive reading, interactive listening, and peer-reviewed writing workshops can gradually reshape cross-linguistic patterns. Teachers can apply diagnostic assessments to identify recurring L1-based patterns and design targeted instruction. Strategies may include explicit grammatical comparisons, focused phonological training, and scaffolded discourse-level writing support. Integrating multilingual perspectives enables constructive use of positive transfer. Administrators can strengthen instruction by supporting professional development in cross-linguistic pedagogy, investing in language resources, adopting multilingual-sensitive assessments, and facilitating teacher collaboration for coordinated responses to mother tongue influence.

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