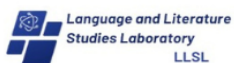
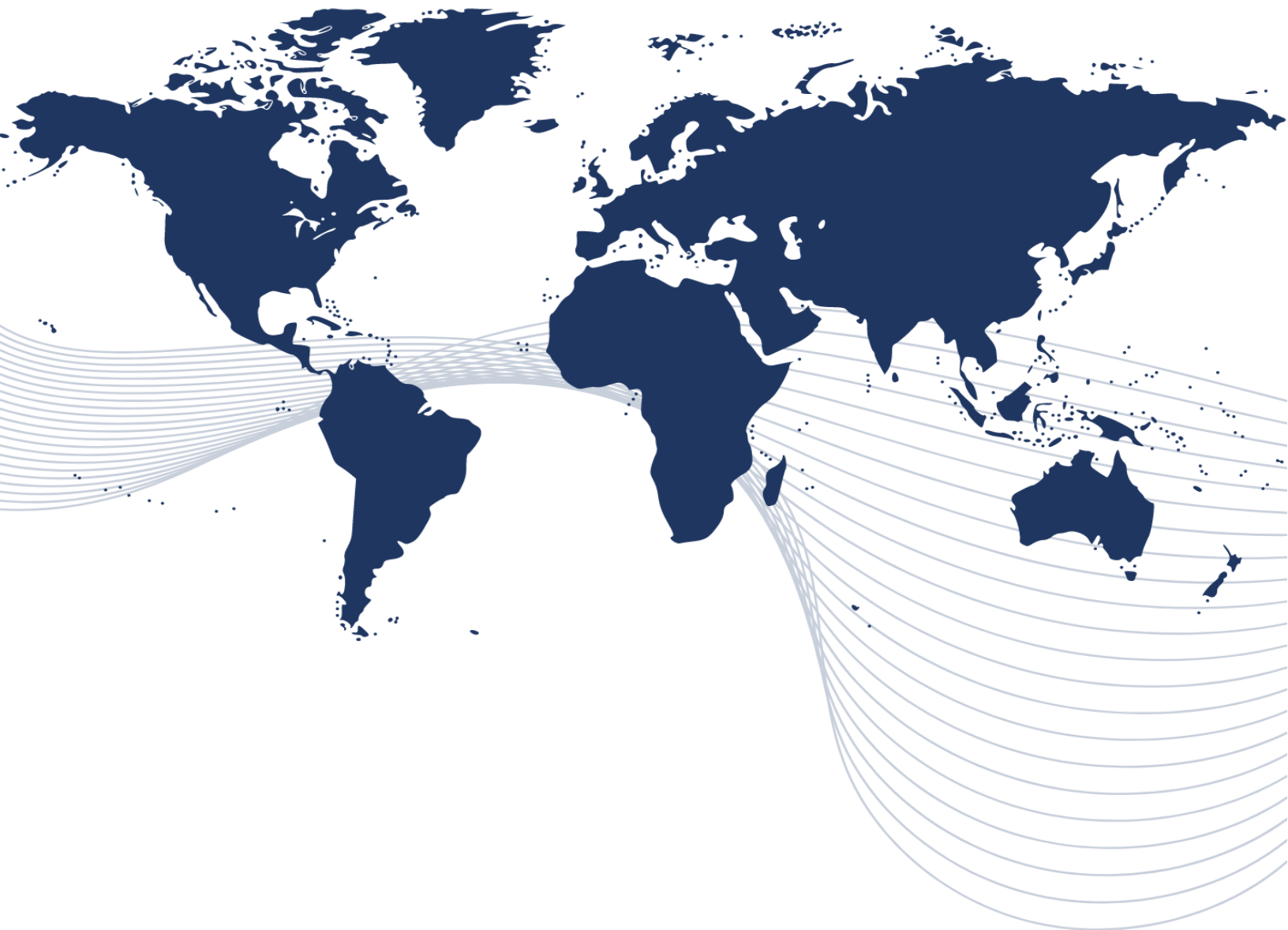


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## Psycholinguistic Perspectives on Language Maintenance in Children: Cognitive and Affective Factors

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### Abstract


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The erosion of regional and minority languages among youth has emerged as a significant issue in multilingual society, especially where prevailing national or global languages eclipse local linguistic traditions. This study seeks to rigorously analyze the psycholinguistic aspects of language maintenance, emphasizing the interplay between internal mechanisms such as working memory, phonological awareness, and motivation, and external factors like input quality and social context in influencing children's retention of their heritage language. This study utilizes a critical review methodology to synthesize data from peer-reviewed studies published in high-impact journals from 2010 to 2022, focusing on psycholinguistics, bilingualism, and language acquisition. The approach delineates four principal themes: cognitive retention mechanisms, the significance of consistent and emotionally resonant input, affective and motivating factors, and the critical function of sociocognitive interactional situations. The results indicate that language maintenance is a dynamic, multimodal process shaped by individual cognitive abilities and the emotional and social contexts of language usage. These results necessitate the development of more comprehensive theoretical models and context-specific therapies that consider both linguistic exposure and the cognitive and emotional experiences of young language users. The research enhances comprehension of language sustainability and provides actionable insights for educators, families, and policymakers involved in language revitalization initiatives.

**Keyword:** Language Maintenance; Psycholinguistics; Heritage; Language; Cognitive Factors

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## INTRODUCTION

Language functions not only as a means of communication but also as a cognitive and cultural framework that influences individuals' perceptions, interpretations, and interactions with the world. In multilingual countries like Indonesia, regional languages (bahasa daerah) are essential conduits of cultural identity, traditional knowledge, and intergenerational continuity. The growing prevalence of national and global languages, especially Bahasa Indonesia and English, has resulted in a notable reduction in the utilization of regional languages among younger generations. This phenomenon, commonly known as language shift, has been extensively recorded in sociolinguistic literature (Fishman, 1991; Grenoble & Whaley, 2006), and is especially pronounced in urban and semi-urban regions where language contact is significant and institutional backing for minority languages is limited. Although sociolinguistic and anthropological perspectives have thoroughly examined the macro-level factors leading to language endangerment – such as globalization, urbanization, and language policy – there is a pressing necessity to investigate the micro-level cognitive processes that affect language maintenance, particularly in children. Children actively generate linguistic knowledge rather than merely receiving linguistic input, with their language choices influenced by a complex interplay of cognitive, affective, and social elements (Tomasello, 2003; Altarriba & Basnight-Brown, 2022).

Psycholinguistics, an interdisciplinary domain that integrates linguistics, psychology, and cognitive science, provides significant insights into the mechanisms by which children acquire, process, and retain numerous languages. It analyses the encoding of linguistic input in memory, the retrieval and production of language, and the impact of motivational and emotional factors on language use. Recent research indicates that children's proficiency in preserving a minority language is significantly correlated with their working memory capacity, phonological awareness, and the emotional significance of the language in their everyday experiences (Schmid, 2011; Paradis, 2010). Furthermore, the quality and quantity of input from carers, peers, and educational environments significantly influence children's linguistic development (De Houwer, 2007; Unsworth, 2016).

Psycholinguistic study can elucidate why certain children successfully preserve their ancestral language while others fail to do so, even within identical sociocultural contexts. Children exposed to consistent and emotionally enriching information in their regional language are more inclined to form strong mental representations of that language, hence enhancing long-term retention and usage (Gathercole & Thomas, 2009). In contrast, when input is disjointed, inconsistent, or emotionally neutral, children may not cultivate the cognitive framework essential for active language use, resulting in steady decline. Despite the increasing acknowledgement of psycholinguistic aspects in bilingual and multilingual development, a significant gap exists in the literature regarding their influence on the preservation of regional languages among children. Most current research emphasizes second language acquisition or bilingual education in predominant languages, with insufficient focus on minority or endangered languages. Moreover, although sociolinguistic research has recorded patterns of language shift and loss, it frequently lacks a comprehensive analysis of the cognitive mechanisms that underpin these phenomena.

This disparity is most pronounced in Indonesia, where more than 700 regional languages are spoken, many of which face the threat of extinction within a few generations.

While national surveys and ethnographic research have underscored the diminishing intergenerational transmission of these languages, limited studies have investigated how children cognitively interact with their regional language, how they encode and access linguistic information, and how emotional factors such as identity and motivation affect their language preferences.

Furthermore, there is an absence of integrative frameworks that amalgamate psycholinguistic theory with empirical data about language maintenance. Current models of bilingualism, such the Revised Hierarchical Model (Kroll & Stewart, 1994) and the Dynamic Systems Theory (Herdina & Jessner, 2002), provide valuable foundations but have not been methodically utilized in the examination of regional language preservation in children. Consequently, educational and policy initiatives designed to rejuvenate regional languages frequently neglect the cognitive and emotional experiences of young language speakers. A significant deficiency exists in methodological approaches. Although experimental and longitudinal investigations are prevalent in psycholinguistics, there is a scarcity of critical evaluations that integrate data across studies to discern consistent patterns, theoretical implications, and practical applications. A critical review methodology is especially beneficial in this situation, as it facilitates a thorough assessment of the current state of knowledge, recognition of methodological strengths and limitations, and the development of new research enquiries based on empirical evidence.

This study seeks to rectify the identified deficiencies by doing a critical analysis of psycholinguistic research concerning language maintenance in children, particularly emphasizing regional or minority languages. The review will consolidate findings from peer-reviewed studies published in prestigious journals, including the *Journal of Psycholinguistic Research*, *Applied Psycholinguistics*, *Language Learning*, and *First Language*. The aim is to uncover essential psycholinguistic factors such as working memory, phonological processing, language input, and affective motivation that affect children's capacity to preserve their regional language.

This study will employ a critical review technique to summarize existing findings and assess the theoretical frameworks, research designs, and analytical methodologies utilized in the literature. This method will facilitate the recognition of consistent patterns, theoretical deficiencies, and avenues for future inquiry. The review will examine the ramifications of these findings for language policy, educational practices, and community driven language revitalization initiatives.

This study makes three contributions. Initially, it offers a psycholinguistic viewpoint on a subject primarily examined through sociolinguistic frameworks, so enhancing the theoretical scope of language maintenance studies. Secondly, it provides a thorough synthesis of empirical evidence that might guide the development of more effective language revitalization initiatives, especially aimed at young learners. Third, it presents an integrated paradigm that connects cognitive, affective, and social elements of language usage, providing a comprehensive understanding of children's engagement with their regional language.

This paper addresses the pressing necessity for multidisciplinary strategies in language preservation, particularly in linguistically diverse and swiftly evolving communities. It also corresponds with wider initiatives in applied linguistics and language education aimed at fostering linguistic diversity, cultural sustainability, and cognitive well-being in children. The

outcomes of this study are anticipated to enhance the formulation of evidence-based policies for the preservation of regional languages in formal and informal educational settings.

## **METHOD**

This study employs a critical review design, a qualitative research methodology that systematically assesses, synthesises, and critiques current academic literature to produce new insights and pinpoint theoretical and empirical deficiencies. A critical review, in contrast to typical literature reviews that mostly summarise findings, scrutinises the assumptions, techniques, and conclusions of prior studies, providing a more nuanced and evaluative perspective (Grant & Booth, 2009). This approach is especially suitable for the current study, which aims to investigate how psycholinguistic factors affect the preservation of regional languages in children—a subject that encompasses various disciplines and theoretical frameworks.

This review is based on peer-reviewed academic articles published in high-impact, Scopus-indexed publications. The selection concentrated on journals dedicated to psycholinguistics, applied linguistics, bilingualism, and language acquisition, including but not limited to: *Journal of Psycholinguistic Research*, *Applied Psycholinguistics*, *Language Learning*, *First Language*, *Bilingualism: Language and Cognition*, and *International Journal of Bilingual Education and Bilingualism*. To maintain the relevance and timeliness of the data, only publications published from 2000 to 2022 were included. This period encompasses recent theoretical advancements and empirical discoveries in the subject, especially those that address current issues in language preservation among children.

A systematic search methodology was the principal instrument for data collection, designed to find pertinent literature across various academic databases, including Scopus, Web of Science, ScienceDirect, SpringerLink, and Taylor & Francis Online. The search technique utilised a variety of Boolean operators and keyword phrases, including: “language maintenance” AND “children” AND “psycholinguistics”; “minority language” AND “working memory” OR “language processing”; “bilingual children” AND “language retention” AND “motivation.”

Inclusion criteria were defined to guarantee the quality and pertinence of the chosen studies. Articles were included if they pertained to children aged 3 to 12 years. Addressed psycholinguistic variables (e.g., memory, perception, motivation). Examined language preservation or decline in minority or regional language settings. Published in English in peer-reviewed journals. Articles that concentrated solely on adult populations, second language learning in predominant languages, or lacked empirical support were omitted.

The data collection process adhered to a three-phase protocol: Titles and abstracts were evaluated for relevance. At this step, duplicates and evidently irrelevant studies were eliminated. Articles that successfully underwent the preliminary screening were comprehensively reviewed to assess their methodological rigour, theoretical framework, and pertinence to the research enquiries. Essential information was derived from each publication, encompassing research aims, participant demographics, psycholinguistic variables analyzed, methodological strategies, and principal findings. A coding matrix was developed to organize and compare data across studies. The selection and coding techniques were independently validated by a second reviewer possessing expertise in psycholinguistics and language

acquisition to improve dependability. Discrepancies were reconciled by dialogue and agreement.

The analysis utilized a thematic synthesis methodology (Thomas & Harden, 2008), which entails the identification, analysis, and interpretation of patterns throughout the chosen papers. This procedure occurred in three phases: Preliminary codes were allocated to text portions that elucidated psycholinguistic variables, including working memory, phonological awareness, and affective motivation. Codes were grouped into broader categories reflecting recurring themes, such as “cognitive mechanisms of language retention,” “input quality and quantity,” and “emotional salience of language use.” The concluding phase entailed analyzing the thematic patterns within the context of established theoretical frameworks, including the Revised Hierarchical Model (Kroll & Stewart, 1994) and Dynamic Systems Theory (Herdina & Jessner, 2002). This facilitated the recognition of conceptual deficiencies, methodological constraints, and avenues for subsequent investigation.

Throughout the analysis, attention was paid to the contextual diversity of the studies, including differences in language pairs, sociolinguistic environments, and educational settings. This contextual sensitivity ensured that the synthesis captured the complexity and variability inherent in language maintenance processes.

## **FINDING AND DISCUSSION**

### ***Finding***

The critical review found various psycholinguistic elements that affect the preservation of regional or minority languages in children. The findings are categorized into four principal themes: (1) cognitive processes of language retention, (2) quality and consistency of linguistic input, (3) affective and motivational factors, and (4) sociocognitive interactional situations. Every theme is substantiated by empirical evidence derived from research undertaken in various linguistic and cultural contexts.

A prevalent topic in the examined literature is the significance of cognitive processing—specifically working memory and phonological awareness—in facilitating language preservation. Children possessing enhanced working memory capacity exhibited superior lexical retention and syntactic complexity in their utilization of legacy language. A longitudinal study by Gathercole and Thomas (2009) on Welsh-English bilinguals demonstrated that children with superior phonological short-term memory were more likely to maintain productive vocabulary in Welsh over time, despite being in predominantly English-speaking situations.

Paradis (2010) similarly discovered that bilingual infants demonstrating strong morphosyntactic processing in their minority language also achieved more accuracy in grammatical production tests, indicating that cognitive efficiency in language processing enhances long-term retention. These findings highlight the significance of internal cognitive resources in maintaining minority language proficiency, especially in situations where external help is scarce.

The second key issue pertains to the characteristics of linguistic input that children encounter in their minority language. Numerous research highlighted that both the quality and consistency of input, in addition to quantity, are essential for language preservation. De Houwer (2007) conducted a comprehensive research of bilingual households in Belgium, revealing that children exposed to continuous minority language input from both parents

were far more likely to achieve active bilingualism compared to those receiving mixed or inconsistent input.

Furthermore, the availability of rich, interactive input such as storytelling, dialogic reading, and emotionally engaging discussions was shown to improve children's recollection of intricate linguistic structures. Unsworth (2016) revealed that children exposed to enriched input in Turkish at home exhibited more advanced morphosyntactic traits than their classmates who received only basic or directed speech. The findings indicate that emotionally and intellectually engaging stimuli promote enhanced language processing and more enduring linguistic representations.

A third prominent topic identified in the literature is the influence of affective factors specifically linguistic attitudes, identity, and intrinsic motivation on children's engagement with their minority language. Schmid (2011) contended that emotional attachment to a language, frequently influenced by familial connections and cultural traditions, significantly determines children's decisions to retain or forsake it.

Altarriba and Basnight-Brown (2022) discovered in a study of Spanish-English bilinguals in the United States that youngsters who linked their heritage language to positive feelings and cultural pride were more inclined to utilize it actively, even in mostly English-speaking contexts [1]. In contrast, children who regarded their minority language as stigmatized or inconsequential to their social identity often distanced themselves from it, resulting in slow attrition.

These findings underscore the significance of cultivating affirmative emotional situations for minority language use, both domestically and in educational contexts. The motivation to utilize the language whether stemming from emotional attachment, cultural affiliation, or perceived practicality proved to be a significant predictor of language preservation.

The review concluded that the interactional circumstances of language usage are a crucial role in language maintenance. Peer interactions, educational settings, and community behaviors collectively influence the opportunity available for youngsters to utilize and cultivate their minority language. A study by Nicoladis and Foursha-Stevenson (2012) revealed that bilingual youngsters who frequently engaged with peers in their heritage language exhibited superior fluency and pragmatic ability compared to those who utilized the language solely with adults.

Furthermore, the existence of institutional support, including bilingual education programs or community language efforts, was determined to bolster children's language utilization and self-assurance. In environments where the minority language was prominent and esteemed—via signage, media, or educational curricula children were more inclined to regard it as socially legitimate and worthy of preservation.

Nonetheless, the research indicated that, even without formal support, micro-level interactional strategies such as parental scaffolding, code-switching for emphasis, and culturally ingrained language games could effectively maintain language use in significant manners. These findings indicate that language maintenance is not merely a result of macro-level policy but is intricately woven into daily social interactions and cognitive practices.

## *Discussion*

This study aimed to rigorously analyze the psycholinguistic aspects of language preservation in children, specifically concerning regional and minority languages. Based on a synthesis of peer-reviewed literature, four primary themes emerged: (1) the function of cognitive mechanisms including working memory and phonological awareness, (2) the quality and consistency of linguistic input, (3) affective and motivational influences, and (4) the sociocognitive contexts in which language utilization transpires. Collectively, these findings provide a more refined comprehension of the interplay between internal cognitive processes and exterior social settings in influencing children's capacity to preserve and utilize their heritage language.

The analysis indicated that children's ability to sustain a minority language is not exclusively dictated by sociolinguistic exposure or institutional assistance, but is also significantly shaped by individual cognitive and emotional variables. Children exhibiting superior working memory and phonological processing abilities were more inclined to maintain intricate linguistic structures in their ancestral language. Consistent and emotionally engaging input from carers bolstered language retention, whereas favorable attitudes and cultural affiliation with the language increased desire for its sustained use. The existence of supporting interactional contexts—such as peer networks, educational programs, or community practices—was determined to substantially enhance language maintenance. These findings corroborate and enhance previous research in psycholinguistics and bilingualism. The function of working memory in bilingual language processing is well-established (Baddeley, 2000; Service et al., 2002), especially for vocabulary acquisition and syntactic advancement. This review emphasizes its particular significance for language maintenance, indicating that cognitive capability not only aids language acquisition but also enhances long-term retention in environments of restricted exposure.

Likewise, the significance of input quality resonates with prior research by De Houwer (2007) and Unsworth (2016), who underscored that simply exposure to a language is inadequate without substantial, interactive involvement. This work provides a psycholinguistic interpretation of the significance of such input: emotionally impactful and cognitively challenging interactions likely facilitate deeper encoding and more enduring memory traces, hence enhancing language retention.

The emotional aspect of language maintenance specifically the influence of identity and motivation has been examined in sociolinguistic research (Norton, 2013; Dörnyei, 2009), although is less commonly discussed in psycholinguistic literature. This review elucidates the connection between emotional attachment to a language and its impact on cognitive engagement and language use. Children who connect their heritage language with parental affection or cultural pride are more inclined to enhance and solidify their linguistic proficiency, therefore mitigating attrition.

The focus on sociocognitive situations aligns with Vygotskian theories of language development, which highlight the significance of social interaction in fostering cognitive advancement (Vygotsky, 1978). The analyzed research indicate that peer contact, institutional visibility, and community practices not only facilitate language usage but also influence children's opinions of the language's worth and validity.

This review's findings possess multiple theoretical implications. Initially, they advocate for a more comprehensive model of language preservation that encompasses both cognitive and social aspects. Current bilingualism models, such the Revised Hierarchical Model (Kroll

& Stewart, 1994), concentrate on lexical access and translation mechanisms, whereas sociolinguistic frameworks highlight overarching variables such as language policy and community dynamics. A thorough model of language maintenance in children must consider the interaction between cognitive mechanisms (such as memory, attention, and processing speed) and affective and environmental elements that affect language retention. The findings indicate that language maintenance ought to be seen not as a binary result (i.e., kept vs lost), but as a dynamic and complex process. Children may preserve specific elements of their heritage language (e.g., phonology or vocabulary) while forfeiting others (e.g., syntax or pragmatics), influenced by the interaction of cognitive, emotional, and environmental factors. This viewpoint corresponds with Dynamic Systems Theory (Herdina & Jessner, 2002), which perceives language development as a non-linear, adaptive process influenced by several interacting factors.

The review underscores the necessity to reevaluate the function of motivation in psycholinguistic models. Although motivation is sometimes regarded as an external or ancillary aspect, data indicates that it is crucial in maintaining cognitive engagement with a minority language. Incorporating motivational constructs such as self-determination, identity alignment, and emotional valence into psycholinguistic frameworks may augment their explanatory efficacy and ecological validity.

The findings highlight the necessity of creating language maintenance interventions that are intellectually and emotionally stimulating. Educational programs must not only offer exposure to the heritage language but also facilitate possibilities for significant interaction, emotional engagement, and identity validation. Storytelling, drama, and culturally integrated language games can concurrently enhance cognitive processing and cultivate good emotional associations.

Parents and carers play an essential role. The review indicates that continuous, high-quality input particularly in emotionally enriched contexts can markedly improve children's language memory. This indicates that family-oriented language planning must be a fundamental element of language revitalization initiatives, especially in situations where institutional backing is scarce.

Additionally, community actions that enhance the visibility and perceived significance of the minority language such as bilingual signage, media content, and public events can bolster children's drive to utilise and preserve the language. These activities ought to be guided by an awareness of the cognitive and emotional requirements of young language users, rather than depending exclusively on top-down policy approaches. This review provides significant insights, although it has limits. The dependence on published, peer-reviewed literature may lead to publication bias, as studies with null or negative results are less frequently disseminated. The review predominantly included studies conducted in Western and urban environments, perhaps restricting the applicability of the findings to rural or non-Western contexts. Subsequent evaluations should strive to encompass a broader spectrum of linguistic and cultural situations.

Third, the variability of the examined studies regarding methodology, participant demographics, and operational definitions presented obstacles for synthesis and comparison. Thematic analysis facilitated the recognition of overarching patterns, whereas more nuanced meta-analytical methods could yield more robust statistical support for the identified

associations. The review ultimately excluded grey literature and unpublished theses, which may harbor significant information regarding under researched languages and populations. Incorporating such sources in future studies could enhance the evidence base and offer a more thorough understanding of language maintenance dynamics.

Based on the findings and limitations of this review, numerous directions for further research are suggested. Longitudinal studies that monitor children's language development over time are essential to elucidate the causal links between cognitive elements and language preservation. Such research could elucidate whether robust working memory facilitates superior language retention or whether sustained language use augments cognitive capacity. Secondly, experimental investigations that alter input quality, emotional significance, or motivating context could yield more direct information regarding the mechanisms that sustain language maintenance. Researchers could investigate the impact of various storytelling modalities (e.g., emotionally neutral versus emotionally rich) on children's retention of vocabulary and grammar.

Third, additional study is required in under-represented linguistic and cultural contexts, especially in the Global South. Considering the significant linguistic diversity and swift language transition in locations like Southeast Asia, Sub-Saharan Africa, and Latin America, research in these areas may provide critical insights and contest prevailing theoretical assumptions.

Fourth, multidisciplinary cooperation among psycholinguists, educators, and community activists may result in the creation of more comprehensive and contextually relevant solutions. Such cooperation may also enable the joint development of research objectives that address the needs and aspirations of linguistic communities. Subsequently, forthcoming research ought to investigate the influence of digital technologies on language preservation. Mobile applications, digital storytelling platforms, and virtual language communities present novel potential for including youngsters in the use of heritage languages, and their cognitive and emotional effects necessitate further examination.

## **CONCLUSION**

This study has rigorously investigated the psycholinguistic aspects of language preservation in children, emphasizing regional and minority languages. A systematic review of peer-reviewed literature revealed four principal themes: the role of cognitive mechanisms, including working memory and phonological awareness; the necessity of high-quality, consistent linguistic input; the impact of affective and motivational factors; and the importance of sociocognitive interactional contexts. These findings highlight the intricate relationship between internal cognitive mechanisms and external social contexts in influencing children's capacity to preserve and utilize their heritage language. The article emphasizes that language maintenance is not solely a sociopolitical or educational concern, but also a profound cognitive and emotional matter. The ability of children to maintain their minority language is intricately linked to their processing, storage, and emotional connection to linguistic input. This discovery necessitates a more comprehensive approach to language revitalization that integrates psycholinguistics, sociolinguistics, and educational practice.

This study has both theoretical and practical ramifications. It theoretically enhances the comprehension of bilingual development by emphasizing the significance of psycholinguistic

elements in language preservation. It provides direction for parents, educators, and politicians aiming to facilitate the development of children's heritage languages. Interventions that are cognitively stimulating, emotionally impactful, and socially significant are more likely to succeed in preserving minority languages over generations.

The study offers a thorough synthesis of existing knowledge while recognizing its limitations, such as the breadth of literature examined and the variety of scenarios included. Future study should focus on bridging these gaps through longitudinal, experimental, and cross-cultural investigations that investigate the cognitive and affective foundations of language maintenance.

This study concludes that the preservation of regional and minority languages relies not solely on institutional backing or community commitment, but also on the attitudes and emotions of the children who utilize them. Comprehending children's cognitive, emotional, and interactive engagement with their heritage language is not merely an academic endeavor; it is an essential measure for safeguarding the linguistic and cultural diversity that enhances our global community.

#### **DECLARATION OF CONFLICTING INTEREST**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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