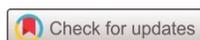Research Article

A Systematic Review of Generative Artificial Intelligence for Inclusive Second Language Writing in Low-Resource Contexts

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Abstract. *Generative artificial intelligence (GAI) is rapidly reshaping second language (L2) writing instruction by providing adaptive tools for feedback, drafting, and linguistic support. Yet little is known about how these technologies promote inclusion, particularly in low-resource settings characterized by digital and socio-economic constraints. This systematic review synthesizes empirical and conceptual studies published between 2019 and 2025 to examine the pedagogical, ethical, and contextual dimensions of GAI in inclusive L2 writing education. Guided by PRISMA 2020, searches across Dimensions.ai, Scopus, ERIC, and Web of Science identified 2,316 records, of which 84 studies met predefined inclusion and MMAT quality criteria. Thematic synthesis using NVivo 14 revealed four domains: (1) accessibility and adaptive scaffolding; (2) pedagogical and linguistic affordances; (3) equity and ethical risks; and (4) implementation barriers in low-resource contexts. Findings indicate that GAI can support differentiated feedback, enhance learner engagement, and expand access to writing support. However, limited infrastructure, linguistic bias, and uneven teacher readiness constrain its equitable impact. The review calls for context-sensitive design, multilingual and locally relevant datasets, and governance frameworks aligned with Sustainable Development Goal 4 to ensure that generative AI strengthens, rather than widens, educational inclusion.*

Keywords. *Generative artificial intelligence, Inclusive education, Second language writing, Low-resource contexts, Educational equity*

1. Introduction

The emergence of generative artificial intelligence (GAI) has reshaped global educational practices, particularly in language teaching and academic writing. Tools such as ChatGPT, Grammarly, and ELSA Speak have transformed how second language (L2) learners engage with idea generation, drafting, and feedback processes. These systems rely on large language models that produce adaptive and context-aware responses to support learner autonomy and motivation (Saud, 2025). Scholars argue that the pedagogical integration of GAI can democratize access to writing assistance for linguistically diverse learners (Kannadhasan, 2025). However, concerns persist regarding algorithmic bias, data privacy, and unequal technological access, especially in contexts where digital infrastructure and teacher readiness are limited (Matsieli, 2025; Mimoudi, 2025). These challenges highlight the need to evaluate the inclusivity of GAI within diverse educational settings.

The relevance of GAI to inclusive education has gained prominence as studies explore its alignment with Universal Design for Learning and culturally responsive pedagogy. These approaches emphasize reducing systemic barriers for marginalized learners, including students with disabilities and multilingual backgrounds (Kannadhasan, 2025). Generative AI offers multimodal feedback, adaptive scaffolding, and accessible writing support that can strengthen equity in digital learning spaces (Akefe, 2025). Empirical findings show that such tools can enhance linguistic accuracy, improve learner confidence, and broaden opportunities for differentiated instruction in L2 classrooms (Saud, 2025). Yet the opacity of AI algorithms and the risk of reinforcing sociolinguistic hierarchies demonstrate the need for responsible instructional mediation and ethical oversight (Matsieli, 2025).

The relationship between generative AI and educational equity also reflects broader global priorities, particularly those outlined in Sustainable Development Goal 4 on inclusive and quality education. Researchers suggest that GAI can contribute to this goal by supporting marginalized learners and expanding access to high quality learning resources (Nedungadi, 2024). At the same time, emerging evidence shows that AI systems may reproduce existing inequities when deployed without localized adaptation, representative datasets, or sufficient infrastructure (Garcia Ramos, 2024). These tensions underscore the importance of contextualized research that examines how GAI functions in low-resource environments where disparities in technology access and cultural representation remain significant (Mimoudi, 2025).

Within the domain of second language writing, generative AI has shown substantial promise for enhancing learning processes. Studies report improvements in coherence, lexical diversity, syntactic accuracy, and overall writing quality when learners use AI assisted tools

for drafting and revision (Saud, 2025). Such technologies promote iterative writing practices and enable learners to reflect critically on their linguistic choices through personalized feedback (Kannadhasan, 2025). Despite these benefits, inclusive design and adequate teacher mediation are essential to prevent the reinforcement of digital privilege. Without these supports, students in disadvantaged settings may face increased exclusion due to unequal access or limited digital competence (Akefe, 2025).

Low-resource educational contexts face distinct challenges in adopting and integrating GAI tools effectively. Limited internet connectivity, minimal device availability, insufficient teacher training, and weak institutional support hinder the implementation of AI-driven pedagogies (Matsieli, 2025). Evidence from the Global South suggests that although GAI can provide affordable access to high quality materials, its benefits are often unevenly distributed because of socio-technical disparities and policy gaps (Mimoudi, 2025). These findings emphasize the need for localized datasets, culturally relevant AI development, and targeted capacity building initiatives to ensure equitable participation in AI-supported writing instruction (Garcia Ramos, 2024).

Given these complexities, there is a growing need for systematic and comprehensive evidence on how generative AI supports inclusive second language writing in low-resource contexts. This review synthesizes empirical and theoretical studies to clarify pedagogical affordances, inclusion mechanisms, and the contextual challenges that shape GAI implementation. The findings aim to inform equitable instructional practices, support curriculum development, and guide policymaking related to AI mediated education (Nedungadi, 2024; Mimoudi, 2025; Kannadhasan, 2025). By examining diverse research perspectives, this review contributes to global discussions on the potential and limitations of generative AI for achieving inclusive, contextually grounded L2 writing education.

In this review, low-resource contexts are operationally defined as educational settings characterized by at least two of the following indicators: (1) limited or unstable internet connectivity; (2) minimal availability of digital devices; (3) insufficient teacher technological readiness or training; (4) weak institutional or policy support for technology integration; and (5) socio-economic or cultural constraints that impede equitable educational participation. This operational definition guided the inclusion criteria during study selection.

2. Methods

This systematic review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to ensure methodological transparency, rigor,

and replicability (Gehring et al., 2025). The review was designed to identify, synthesize, and critically appraise empirical and theoretical evidence on the use of generative artificial intelligence (GAI) in inclusive second language (L2) writing education in low-resource contexts. The overarching aim was to provide a comprehensive overview of the pedagogical affordances, inclusivity mechanisms, and implementation barriers associated with GAI supported L2 writing. The review protocol was registered prior to data collection, and the inclusion criteria were operationalized in line with best practices for systematic reviews in educational technology (Ulanova et al., 2025; Deroncele-Acosta et al., 2025).

A systematic search was conducted across four major databases, namely Dimensions.ai, Scopus, ERIC, and Web of Science, covering publications from January 2019 to November 2025. The search strategy combined Boolean operators and controlled vocabulary terms such as "generative artificial intelligence", "second language writing", "inclusive education", and "low-resource contexts". Search strings were refined iteratively to capture studies addressing both pedagogical and ethical dimensions of GAI in L2 writing. The Dimensions.ai platform was prioritized because of its extensive coverage of open access and peer-reviewed literature in education and technology (Toma & Milner-Bolotin, 2025; Carmona-Galindo et al, 2025). To minimize publication bias and identify seminal contributions, backward and forward citation tracking was also undertaken for key papers on GAI based writing instruction.

Table 1. Databases and search terms used.

Database	Coverage Period	Search Terms (Examples)	Notes
Dimensions.ai	2019–2025	"Generative-artificial intelligence" AND "second language writing"; "inclusive education" AND "low-resource contexts"	Extensive coverage of open access and educational technology research.
Scopus	2019–2025	"Generative-AI" AND "L2 writing"; "AI writing tools" AND inclusivity	Broad international coverage across education and linguistics.
ERIC	2019–2025	"AI supported writing" AND "language learning"; "inclusive instruction"	Focuses on teacher education and instructional technology.
Web of Science	2019–2025	"AI writing feedback" AND "equity"; "L2 writing" AND "accessibility"	Multidisciplinary indexing including education and policy.
Citation Tracking	N/A	Reference lists of key GAI studies	Used to locate additional seminal and high-impact publications.

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Eligibility criteria were defined to include peer-reviewed journal articles, conference proceedings, and book chapters that met three conditions. First, the study needed to have an explicit focus on generative AI used in educational settings. Second, it had to examine inclusivity, accessibility, or equity in L2 writing or literacy contexts. Third, the research had to be conducted in, or clearly relevant to, low-resource or multilingual educational environments. Studies that focused exclusively on non-writing domains or that used non-generative AI tools such as predictive analytics or traditional natural language processing systems were excluded (Daud et al., 2025; Li et al., 2024). Non-English publications were considered if an English abstract was available, and all duplicates were removed using a combination of automated filtering and manual verification

Table 2. Inclusion and exclusion criteria.

Category	Criteria
Inclusion Criteria	1. Peer-reviewed journal articles, conference papers, or book chapters.
	2. Explicit focus on generative AI in educational settings.
	3. Addresses inclusivity, accessibility, or equity in L2 writing or literacy.
	4. Conducted in, or relevant to, low-resource or multilingual contexts.
	5. Published between 2019 and 2025.
Exclusion Criteria	1. Studies unrelated to L2 writing.
	2. Studies employing non-generative AI technologies.
	3. Not addressing equity or inclusion.
	4. Outside the 2019–2025 timeframe.
	5. Duplicate records removed in screening.

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The operational definition of low-resource contexts was applied during the screening process to ensure that selected studies authentically reflected environments with marked infrastructural, capacity-related, or resource-access constraints. Study selection followed a two-stage screening process. In the first stage, two researchers independently reviewed titles and abstracts to assess their relevance to the inclusion criteria. Records that met or potentially met the criteria were advanced to the second stage, in which full texts were examined in detail. Any discrepancies between reviewers were resolved through discussion, and where consensus could not be reached, a third reviewer was consulted to ensure inter-rater reliability. The flow of studies through the identification, screening, eligibility, and inclusion phases was documented using a PRISMA 2020 flow diagram (Gehring et al., 2025; García-Carreño, 2025). This systematic procedure ensured that only studies with clear methodological reporting and educational relevance were retained.

Data extraction was guided by a structured protocol that captured key study characteristics and findings. Extracted information included authors, year of publication, country or region, publication type, educational level, research design (quantitative, qualitative, or mixed methods), type of GAI technology, and reported outcomes related to inclusivity, accessibility, and L2 writing development. NVivo 14 software was used to support thematic coding and organization of the extracted data (Ulanova et al., 2025). Through iterative coding and cross-tabulation, relationships were explored between technology type, learner demographics, contextual features, and equity-related themes. The narrative synthesis emphasized recurrent patterns, contextual variations, and gaps in the existing evidence on GAI based L2 writing research (Deroncele-Acosta et al., 2025).

Table 3. Data categories and extracted elements.

Data Category	Extracted Elements
Bibliographic Information	Authors, publication year, country or region, publication type.
Study Context	Educational level; characteristics of low-resource or multilingual settings.
Methodological Approach	Design (quantitative, qualitative, mixed methods); data collection techniques.
AI Technology Type	Generative AI tool or platform used; core capabilities.
Pedagogical Focus	Writing skills targeted; instructional models; scaffolding mechanisms.
Inclusivity and Equity Outcomes	Accessibility, linguistic inclusivity, learner diversity, barriers to use.
Key Findings	Main empirical or conceptual contributions.
Quality Appraisal Notes	Indicators assessed using MMAT, including sampling, reliability, contextual relevance.

Quality appraisal was conducted using a modified version of the Mixed Methods Appraisal Tool (MMAT), which supports the evaluation of methodological rigor across quantitative, qualitative, and mixed-methods designs. Quantitative studies were examined for sampling validity, measurement reliability, and transparency of statistical procedures, while qualitative and mixed-methods studies were assessed for data richness, reflexivity, and contextual relevance (Toma and Milner-Bolotin, 2025; Daud et al., 2025). Only studies that satisfied minimum quality benchmarks were included in the final synthesis. This emphasis on methodological rigor ensures that the reviewed evidence accurately reflects current global trends in the pedagogical, ethical, and social implications of generative AI for inclusive L2 writing education in low-resource contexts.

3.   Results and Discussion

The systematic search identified 2,316 records across Dimensions.ai, Scopus, ERIC, and Web of Science. After removal of 374 duplicate records, 1,942 unique studies remained for title and abstract screening. At this stage, 1,728 records were excluded because they did not focus on generative AI, did not address second language writing, or did not engage with issues of inclusivity or low resource contexts. The remaining 214 articles were retrieved for full text assessment. Following detailed eligibility screening, 130 full text articles were excluded for reasons such as insufficient methodological reporting, a purely technical orientation without educational implications, or lack of explicit connection to inclusivity in L2 writing. Finally, 84 studies met all inclusion and quality criteria and were included in the qualitative synthesis.
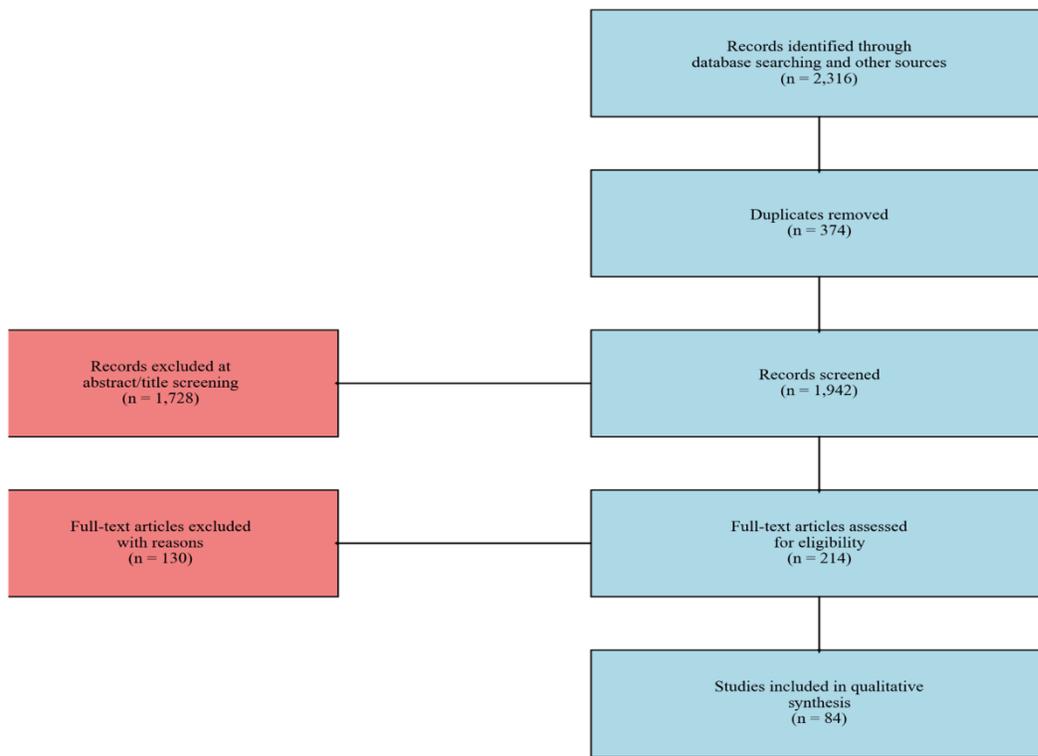

Figure 1. PRISMA 2020 Flow Diagram

Figure 1 presents the PRISMA 2020 flow diagram that summarizes this process from identification through screening, eligibility, and final inclusion. The figure shows the PRISMA 2020 flow diagram with the number of records at each stage., namely 2,316 records identified, 374 duplicates removed, 1,942 records screened, 1,728 records excluded at title and abstract level, 214 full texts assessed, 130 full texts excluded with reasons, and 84 studies included in the review.

3.1 Study Characteristics and Publication Trends

The 84 included studies represent a range of regions, educational levels, research designs, and AI tools. Table 4 summarizes these characteristics.

Table 4. Study characteristics (region, design, level, AI tool).

Characteristic	Category	(n = 84)
Region	Asia	32
	Sub-Saharan Africa	18
	Latin America	12
	Europe	11
	North America	11
Research design	Qualitative	37
	Mixed methods	28
	Quantitative	19
Education level	Higher education	41
	Secondary	27
	Primary	16
AI tool type	LLM based writing assistants	49
	AI feedback platforms	23
	Multimodal or speech-based tools	12

Most studies were conducted in Asia, followed by Sub Saharan Africa and Latin America, indicating both the rapid diffusion of generative AI in Asian higher education and the growing interest in its potential to address educational inequities in the Global South (Matsieli, 2025; Mimoudi, 2025; Amofa et al., 2025). Smaller but still notable clusters of research emerged from Europe and North America, often with a stronger focus on conceptual and ethical debates (Leon et al., 2025; Nedungadi, 2024).

In terms of research design, qualitative and mixed methods approach dominate the evidence base. These designs are frequently used to capture learner and teacher experiences of AI supported writing, as well as to explore how inclusivity, accessibility, and equity are negotiated in practice. Quantitative studies, although fewer in number, often measure changes

in writing performance, motivation, or engagement following exposure to AI assisted feedback systems (Ghazali et al., 2025; Navas Bonilla et al., 2025).

Publication trends over time show a clear acceleration in research on generative AI for inclusive L2 writing. Between 2019 and 2021, relatively few studies were published, with most work focusing on exploratory pilots or conceptual discussions. From 2022 onwards, and especially during 2023, 2024, and 2025, there is a sharp increase in the number of empirical studies, classroom implementations, and critical analyses. Of the 84 included studies, 27 were published between 2019 and 2022, while 57 appeared between 2023 and 2025. This means that approximately two thirds of the reviewed work was produced in the last three years, reflecting the rapid rise of GAI in educational research. Figure 2 visualizes the distribution of studies by publication year, for a total of 84 publications.
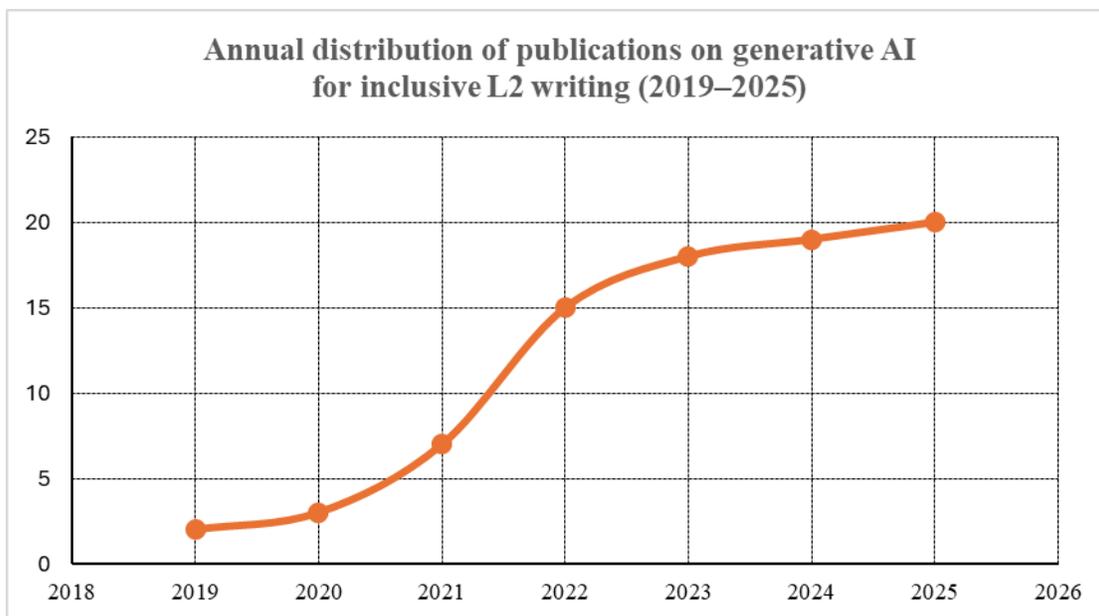

Figure 2. Distribution of Publications by Year (2019 - 2025)

3.2 *Geographical Distribution*

The geographical spread of the studies is diverse but uneven. As shown in Table 4, 32 studies were carried out in Asia, 18 in Sub Saharan Africa, 12 in Latin America, and 11 each in Europe and North America. Research from Asia and North America often explores AI assisted writing in higher education and urban school settings, while studies from Sub Saharan Africa and Latin America place stronger emphasis on digital inequity, infrastructure constraints, and localized pedagogical innovation (Matsieli, 2025; Amofa et al., 2025; García Ramos, 2024).

Figure 3 provides a visual representation of this geographical distribution of the number of studies per region. The visual should help readers see that, although research

is globally distributed, the concentration in Asia is particularly strong, and that work in low resource settings is emerging but still limited in number. Figure 3. Geographical distribution of reviewed studies.
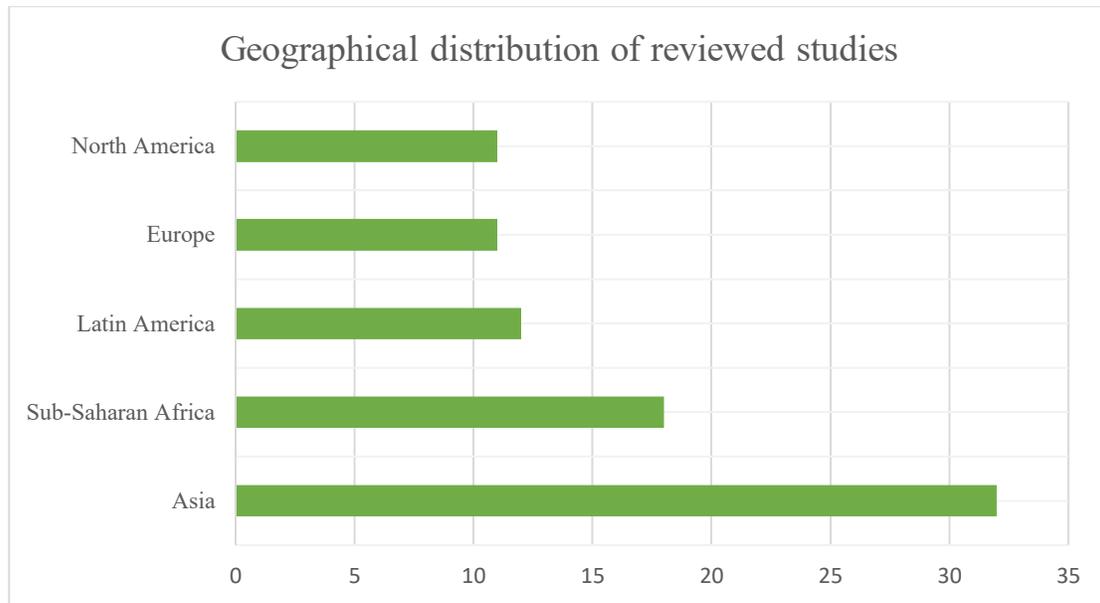

Figure 3. Geographical Distribution of Reviewed Studies

3.3   *Thematic Distribution of the Evidence Base*

The thematic analysis conducted in NVivo 14 produced four major clusters that structure the synthesis of findings. Table 5 shows how the 84 studies are distributed across these themes.

Table 5. Themes of reviewed studies.

Theme	Description	n
Inclusivity and accessibility	Adaptive scaffolding, disability support, multilingual access	33
Pedagogical and linguistic affordances	Writing development, feedback quality, metacognition	26
Equity, ethics, and socio technical issues	Algorithmic bias, data justice, transparency, teacher preparedness	15
Low resource challenges and innovations	Infrastructure, bandwidth, teacher readiness, localized AI design	10

These counts provide a clearer sense of how frequently each theme appears in the literature. Figure 4 visualizes the distribution of themes, for example through a bar chart that highlights the prominence of inclusivity and pedagogical affordances, while also drawing attention to the smaller but critical clusters on ethics and low resource innovation.
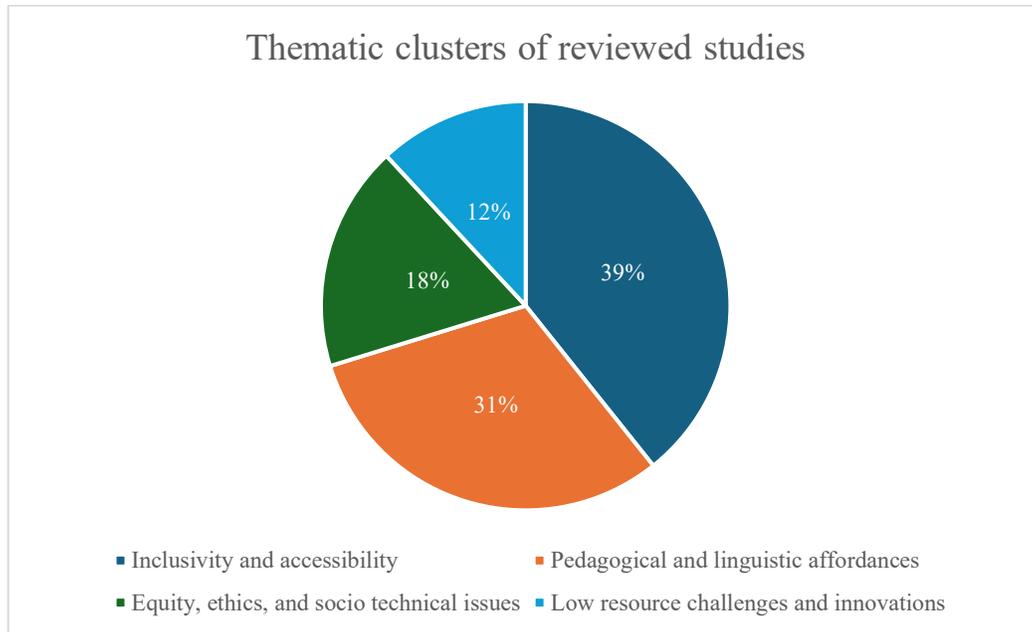

Figure 1. Thematic Clusters of Reviewed Studies (n=84)

4. Discussions

While the evidence indicates that GAI can provide adaptive linguistic and pedagogical support, its implementation in low resource settings may exacerbate inequities if infrastructural limitations remain unaddressed. For instance, pedagogical affordances such as real time feedback lose relevance in contexts with unstable internet access. Similarly, algorithmic biases identified within the ethical domain may further marginalize learners of minority languages when AI models are trained on unrepresentative datasets. Thus, inclusive GAI integration requires a holistic approach that acknowledges the interplay between technological capacity, teacher readiness, and data justice.

4.1   Inclusivity and Accessibility Through Generative AI

The first and largest theme comprises 33 studies that examine how GAI supports inclusivity and accessibility in L2 writing. Many of these studies describe how AI enabled writing tools, conversational agents, and integrated feedback systems provide adaptive scaffolding and real time linguistic support that helps learners with diverse proficiency levels participate more fully in writing tasks (Mimoudi, 2025). In several contexts, GAI has been used

to support learners with disabilities and multilingual students through features such as text simplification, translation, speech to text, and visual prompts (Akefe, 2025).

At the same time, the studies underscore that inclusive outcomes are not guaranteed. Evidence from Sub Saharan Africa and Latin America shows that the benefits of GAI are unevenly distributed when internet connectivity, device access, and institutional support are limited (Amofa et al., 2025; Matsieli, 2025). In such contexts, AI supported tools can inadvertently deepen disparities if only a subset of learners can access them regularly. Overall, the inclusivity and accessibility theme highlights GAI's potential to broaden participation, while also revealing how structural inequities constrain that potential.

4.2   *Pedagogical and Linguistic Affordances for L2 Writing*

The second theme includes 26 studies that focus on the pedagogical and linguistic affordances of generative AI in L2 writing instruction. These studies report that GAI tools enhance iterative drafting, lexical diversity, and grammatical accuracy, particularly when learners are encouraged to revise their texts multiple times based on AI feedback (Ghazali et al., 2025). Learners often describe AI systems as "always available writing partners" that help them generate ideas, reorganize arguments, and explore alternative linguistic formulations (Daud, 2025; Kannadhasan, 2025).

The pedagogical affordances are especially valuable in classrooms where teacher time is limited and class sizes are large. AI supported feedback can complement human feedback by offering immediate suggestions, examples, and explanations, which supports self-regulated learning and metacognitive reflection (Navas Bonilla et al., 2025). However, several studies caution that without clear guidelines and assessment policies, students may rely too heavily on AI generated text, reducing opportunities for independent reasoning and critical writing. The findings therefore emphasize that GAI is most effective when integrated into carefully designed tasks and when teachers scaffold its use.

4.3   *Equity, Ethics, and Socio Technical Barriers*

The third theme, represented by 15 studies, addresses equity, ethics, and socio technical barriers in the adoption of generative AI. These studies report recurring concerns about algorithmic bias, underrepresentation of non-dominant languages, data privacy, and lack of transparency in how AI models generate feedback or suggestions (Akefe, 2025; Leon et al., 2025). For instance, some research notes that AI systems tend to perform better for standardized English and dominant language varieties, which can marginalize learners whose linguistic repertoires include local or indigenous languages.

Teacher preparedness also emerges as a critical factor. Many educators feel uncertain about how to integrate GAI responsibly, how to explain its workings to students, and how to evaluate AI supported writing in ways that are fair and transparent. Several authors therefore call for ethical governance frameworks, clearer documentation of training data, and participatory design processes that involve teachers and students in shaping AI tools for inclusive education (Nedungadi, 2024). This theme highlights that technological affordances alone are insufficient; equity depends on how tools are developed, regulated, and pedagogically mediated.

4.4   *Low Resource Challenges and Local Innovations*

The fourth theme comprises 10 studies that focus explicitly on generative AI in low resource contexts. These studies document persistent challenges, including unreliable internet connectivity, limited device availability, insufficient teacher training, and weak institutional support for AI integration (Matsieli, 2025; Mimoudi, 2025). In many cases, AI use is constrained to occasional computer lab sessions or shared mobile devices, which limits opportunities for sustained writing practice and inclusive participation.

Despite these constraints, the same studies also identify local innovations. Examples include the use of low bandwidth versions of AI tools, the adaptation of open-source models to local languages, and teacher led customization of prompts and tasks to align with national curricula and culturally relevant topics (Amofa et al., 2025). These initiatives demonstrate that generative AI can be adapted to support inclusive L2 writing even in constrained environments, provided that there is deliberate investment in teacher capacity, infrastructure, and localized design.

Across the four thematic clusters, the results indicate that generative AI holds significant promise for promoting inclusive, engaging, and effective L2 writing instruction. Its strongest contributions lie in expanding access to writing support, enabling differentiated feedback, and fostering learner autonomy. At the same time, the evidence shows that these benefits are highly contingent on infrastructural conditions, teacher readiness, ethical safeguards, and the extent to which AI tools are localized and culturally responsive (Mimoudi, 2025; Kannadhasan, 2025). The findings provide a nuanced picture in which GAI can either mitigate or exacerbate existing inequities. This complexity underlines the need for context sensitive, equity driven approaches to designing, implementing, and governing generative AI in second language writing education.

4.5   *Integrative Synthesis: Linking Affordances, Ethics, and Context*

This review demonstrates that the potential of GAI for inclusive L2 writing is closely linked to the interplay of pedagogical, technical, and socio contextual factors. Pedagogical affordances, such as adaptive scaffolding, are equitably accessible only when digital infrastructure is reliable and educators possess adequate AI literacy. At the same time, ethical risks, including linguistic bias and data privacy concerns, are heightened in low resource environments where oversight mechanisms and regulatory frameworks remain limited. Consequently, GAI implementation frameworks must adopt a multidimensional orientation, integrating responsive technology design, context sensitive teacher development, and sustainable supportive policies. Without such integration, GAI risks perpetuating rather than alleviating existing educational disparities.

5. Conclusion

This systematic review provides comprehensive evidence on the pedagogical, ethical, and policy dimensions of generative artificial intelligence (GAI) for inclusive second language (L2) writing education, especially in low-resource contexts. Across 84 reviewed studies, GAI demonstrates considerable promise in enhancing accessibility, personalized learning, and student engagement. Through adaptive feedback, multimodal input, and iterative writing support, GAI fosters inclusivity and equity in language learning environments (Kannadhasan, 2025); (Ghazali, 2025). Yet, the uneven distribution of technological infrastructure, algorithmic transparency, and teacher readiness remains a persistent barrier to realizing its full potential (Mimoudi, 2025).

The review confirms that inclusive GAI applications are most effective when guided by universal design principles, contextual adaptability, and culturally responsive pedagogy. Educational ecosystems that promote teacher agency and critical AI literacy tend to integrate GAI more equitably, avoiding overreliance and maintaining human pedagogical judgment (Carmona-Galindo et al., 2025). This finding underscores the importance of reimagining teacher professional development as a central component of AI integration. In low-resource settings, capacity-building programs and community-driven adaptation of AI tools can bridge the gap between innovation and equitable practice (Akefe et al., 2025).

From a policy perspective, the results emphasize the need for governance frameworks that align AI deployment with the United Nations Sustainable Development Goal 4 (SDG4) — Quality Education. A cohesive strategy that links ethical AI design, data inclusivity, and educational accessibility is vital for ensuring that generative technologies advance, rather than undermine, educational equity (Nedungadi et al., 2024). National and institutional policies should encourage open datasets, multilingual AI development, and cross-sector collaboration

between educators, technologists, and policymakers to ensure sustainable and inclusive implementation.

Future research should deepen the empirical evidence base through longitudinal and cross-regional studies that examine how GAI supports linguistic development, learner motivation, and socio-cultural inclusion over time (Peng & Li, 2025). Particular attention should be paid to the intersection of generative AI with issues of gender, disability, and indigenous education—areas where inclusivity gaps remain underexplored (Ravichandran & Sasikala, 2025). Furthermore, experimental and design-based research can provide actionable insights into localized AI adaptation and pedagogical co-creation between teachers and learners.

In conclusion, generative AI represents both a technological and social innovation in L2 writing education. When ethically governed and pedagogically grounded, it holds transformative potential to democratize language learning, empower educators, and support marginalized learners across diverse educational landscapes. However, without deliberate attention to equity, accessibility, and contextual appropriateness, GAI may reinforce existing divides. Therefore, the future of inclusive AI in education depends not merely on technological sophistication but on our collective commitment to ensuring that its design and deployment truly serve all learners, regardless of linguistic, cultural, or economic background (Leon et al., 2025); (Mimoudi, 2025).

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