



Writing back with AI: A phenomenological study of language decolonization among Arab bilingual learners

Maha Alhabbash ¹

 0000-0002-2881-823X

Najah Al Mohammadi ^{1*}

 0000-0002-1331-2850

Hana Omar ¹

 0000-0001-9140-6740

Safa Alothali ²

 0000-0002-2636-2697

¹ United Arab Emirates University, Al Ain, UNITED ARAB EMIRATES

* Corresponding author: 201370306@uaeu.ac.ae

Citation: Alhabbash, M., Al Mohammadi, N., Omar, H., & Alothali, S. (2026). Writing back with AI: A phenomenological study of language decolonization among Arab bilingual learners. *Contemporary Educational Technology*, 18(2), Article ep651. <https://doi.org/10.30935/cedtech/18477>

ARTICLE INFO

Received: 22 Aug 2025

Accepted: 12 Jan 2026

ABSTRACT

This transcendental phenomenological study explores how bilingual Arab writers experience language decolonization when using artificial intelligence (AI)-generated tools in academic writing. A screening survey was distributed using snowball sampling, yielding 32 respondents. From these, nine undergraduate and postgraduate students in the United Arab Emirates were selected through criterion sampling based on their responses, willingness, and availability to participate. Drawing on interview data, the study employed cluster analysis and sentiment analysis to trace the process of decolonization through six developmental stages: initial trust in AI authority, cultural and linguistic mismatch, discomfort with standardized norms, negotiation of voice, strategic adaptation, and advocacy for inclusive AI. Participants' narratives revealed how AI tools often reinforced dominant English norms, creating tensions around authenticity, cultural erasure, and linguistic misalignment. These tensions prompted critical reflection and selective engagement with AI feedback, fostering greater metalinguistic awareness and a reassertion of bilingual identity. The findings contribute to decolonial language theory, critical applied linguistics, and critical digital literacy by grounding how algorithmic systems influence bilingual expression. This study proposes a grounded model of AI-mediated language decolonization, with implications for culturally inclusive AI design and linguistically responsive pedagogy in multilingual academic contexts.

Keywords: language decolonization, Arab bilinguals, college students, AI generative tools, academic writing

INTRODUCTION

The interaction between artificial intelligence (AI) and educational technology has progressed from rule-based systems to machine learning and neural networks. In language and literacy education, AI now supports automated essay scoring, grammar correction, and adaptive systems tailored to learners' reading and writing levels (Caines et al., 2025). A major advancement is the emergence of large language models (LLMs), AI systems trained on massive datasets to generate text that resembles human language (Omiye et al., 2024). Based on transformer architectures that utilize self-attention mechanisms, LLMs can learn complex word associations and generalize beyond the training data to perform tasks such as text prediction, translation, and summarization (Shao et al., 2024). Progress in language modelling has been shaped by word embeddings,

evolving from Word2Vec to contextual models like ELMo, which enable better syntactic and semantic representation, allowing for the development of massive models such as GPT-2, GLaM, and GPT-4 (Peters et al., 2018; Radford et al., 2019). Tools like ChatGPT offer notable opportunities for language learning, especially in academic writing (Dizon, 2024; Godwin-Jones, 2024).

LLMs are now central to research in natural language processing (NLP) and AI, marking a shift in language learning technologies, particularly for bilingual and diverse learners. Their ability to personalize instruction and support literacy development is promising, but it comes with challenges (Caines et al., 2025). Concerns include biased training data (Mehrabi et al., 2021), limited understanding of natural language (Bender et al., 2021), and opacity in model operations. As multimodal LLMs emerge, combining text with images or audio, their role in fostering equitable, inclusive, and linguistically responsive education warrants closer scrutiny (Al Mohammedi, 2022). Despite strong technical foundations, the sociocultural impact of LLMs remains underexplored. Decolonizing language education in AI necessitates redesigning these systems to prioritize linguistic equity, sociocultural authenticity, and the lived experiences of diverse bilingual learners (AlAfnan, 2025).

LITERATURE REVIEW

Language Decolonization and AI

In today's globalized world, effective oral and written communication is essential. Due to historical and colonial influences, European languages, especially English, have become dominant, with English serving as the lingua franca of academia in teaching, communication, publishing, and conferences (Caines et al., 2025).

Decolonizing language education, a discourse dating back to Elder (1971), calls for rethinking the biases, assumptions, and models embedded in language systems (Greatorex & Coleman, 2021). This involves redesigning learning materials and assessments to reflect the realities of bilingual learners, moving away from native-speaker ideals toward intelligibility and practical communication (Caines et al., 2025; North, 2021). More than just adding diverse voices, it requires redefining who holds linguistic authority and what constitutes knowledge (Afolabi, 2020).

AI plays a complex role in this shift. While it offers powerful tools for language learning, it heavily relies on data from high-resource languages, such as English, and underperforms in low-resource contexts (Atari et al., 2023). AI outputs often lack linguistic nuance and cultural authenticity, raising concerns about inclusivity and accuracy (Bender et al., 2021; Godwin-Jones, 2024). Language decolonization in the context of AI involves critically examining and challenging dominant linguistic paradigms while reclaiming marginalized linguistic spaces through technological resistance and alternative ways of knowing. Recent research supports this perspective across various aspects. Yin (2025) shows that generative AI systems, primarily trained on high-resource languages such as English, often encode and reproduce dominant linguistic ideologies. This highlights the urgent need for intentional critical intervention. Aguiar and da Silva (2024) further demonstrate how marginalized communities reinterpret AI as a site of resistance, transforming Eurocentric technological frameworks into tools for linguistic and cultural empowerment. A particularly compelling example is the Papa Reo project by Jones et al. (2023), a multilingual language platform grounded in Indigenous knowledge systems. By incorporating Indigenous expertise throughout the NLP pipeline, this project actively indigenizes AI development, challenges algorithmic linguistic authority, and emphasizes alternative technological and linguistic worldviews. Together, these initiatives illustrate how AI can serve as a platform for decolonial practice, asserting linguistic sovereignty and epistemological diversity against the dominance of global linguistic hierarchies.

Recent studies emphasize the need to move beyond native-speaker norms, particularly in bilingual settings such as Arabic and English. Despite AI's potential to support language development, current systems often fail to represent bilingual Arab learners because of English-centric training data, leading to bias and cultural insensitivity (AlAfnan, 2025). However, others highlight AI's potential to bridge linguistic gaps, empowering non-native speakers and amplifying the voices of marginalized individuals in academic writing (Challapalli et al., 2020; Park et al., 2020). In this light, AI emerges as both a democratizing tool and a site of

tension, prompting critical inquiry into how language use through AI can be decolonized (Omodan & Marongwe, 2024), a central focus of this study.

AI and Bilingual Writers

Recent research increasingly values bilingualism and multilingualism in language education, viewing languages as interconnected tools for meaning-making rather than isolated systems (García & Otheguy, 2020; Ortega, 2017). Bilingual writers face complex challenges in academic writing, rooted not only in language proficiency but also in cultural differences and unfamiliar academic conventions (Alhabbash et al., 2025a; Ma, 2021; Morrison & Evans, 2018). These issues are especially pronounced in scientific and technical writing, which demands precision and adherence to English academic norms (Alhabbash et al., 2025a).

AI technologies in NLP can help bridge these gaps by supporting bilinguals in expressing ideas clearly in English and adapting content to various linguistic and cultural contexts (Dignum, 2019; Omodan & Marongwe, 2024). Beyond providing functional support, AI can promote inclusivity and help bilingual learners fully participate in academic discourse (Balta, 2023). However, AI also presents challenges. Most systems are trained on English-dominant datasets, which reinforces linguistic hierarchies and marginalizes diverse rhetorical styles and translanguaging practices (Albeih & Rice, 2025). While useful for grammar correction and feedback (Cole, 2025), AI often lacks the cultural sensitivity needed to support the identity work of bilingual writers, risking the erosion of linguistic diversity (Godwin-Jones, 2024; Zaman et al., 2024). Scholars advocate for more inclusive training data, culturally responsive design, and the ethical use of AI in education (Albeih & Rice, 2025).

In response, bilingual writers may adopt strategies to decolonize their language and assert diverse voices. Canagarajah (2012) promotes translingual practices that challenge rigid English norms, while Alhabbash (2022) and Alhabbash et al. (2025b) emphasize trans-identity approaches that balance local and global identities within literacy practices. The key question is how these practices can be integrated with AI and how AI itself can raise awareness about language decolonization.

This study explores how bilingual writers experience language decolonization when utilizing AI generative tools in academic writing. Specifically, it investigates the developmental stages through which bilinguals navigate and negotiate their linguistic identity and voice in response to AI-mediated feedback and examines the perceived consequences of these interactions on their academic writing practices. By tracing the unfolding of the decolonization process over time, the study aims to deepen our understanding of the sociocultural dimensions of AI use in bilingual academic contexts. Ultimately, the goal is to ground a theoretical model that captures the dynamic and experiential process of language decolonization, providing a framework for future research, critical pedagogy, and the ethical integration of AI in language education. Therefore, the study is guided by the following central question with its two sub-questions:

Main Question

How do bilingual writers experience language decolonization while using AI generative tools in academic writing?

Sub-questions

1. How do bilingual writers develop language decolonization over time when using AI tools?
2. What consequences do bilingual writers experience from language decolonization while using AI generative tools in their academic writing?

THEORETICAL FRAMEWORK

Decolonial Theory

Decolonial theory in language education critically examines how colonial legacies shape language ideologies, educational practices, and technological systems, including AI, challenging Eurocentric norms that privilege standard English and marginalize non-dominant linguistic forms (Canagarajah, 2020; Mignolo, 2007; Pennycook, 2006). It views language as a site of identity, power, and epistemic struggle, particularly for

bilingual writers whose AI-assisted corrections often align with dominant norms rather than authentic linguistic realities (Kuteeva & Andersson, 2024). Concepts like translanguaging (Wei, 2018) validate diverse language practices shaped by cultural and historical experiences. Recent scholarship explores intersections of decolonial theory, AI, and language education, advocating for translanguaging pedagogies (García et al., 2021), noncolonial epistemologies (Vélez Salas, 2022), strategies to counter algorithmic coloniality (Zembylas, 2023), and embedding decolonial ethics in AI for vulnerable populations (Mohamed et al., 2020). While these works offer macro-level critiques, there remains a gap in empirical research on bilingual learners' lived experiences of language decolonization through AI tools in academic contexts, highlighting the need for approaches that integrate critical technical practices with justice-oriented AI design.

Critical Digital Literacy

Critical digital literacy (CDL), also referred to as algorithmic literacy in AI and data contexts, examines how power, representation, and agency are mediated through digital technologies (Bacalja et al., 2021). Drawing on frameworks such as Pahl and Rowsell's (2011) *artifactual critical literacy*, which values diverse cultural expressions and multimodal meaning-making, and Picasso et al.'s (2024) call for authentic, justice-oriented AI and data literacies, CDL integrates professional knowledge with critical awareness of societal impacts. Jandrić (2019) situates CDL in a post-digital context, highlighting challenges such as rethinking theory, balancing technological and political dimensions, and embracing post-humanist perspectives. Beyond functional skills, CDL fosters awareness of algorithmic bias and the socio-political interests AI serves (Noble, 2018), guiding bilingual writers in AI-supported writing to make strategic, values-informed decisions (Tseng & Warschauer, 2023; Warschauer et al., 2023). It also emphasizes learner agency in resisting dominant norms, positioning AI use as a site of critical negotiation (Pahl & Rowsell, 2011) and exploring distributed agency between humans and AI, with implications for language decolonization (Godwin-Jones, 2024).

Critical Applied Linguistics

Critical applied linguistics (CALx) examines how language, power, and ideology intersect in educational and technological contexts, challenging the notion of language as neutral (Martin & Degollado, 2022; Norton, 2013; Pennycook, 2004). It reveals how linguistic practices, such as translanguaging, are tied to social control, identity, and inequality, offering a lens to explore bilingual writers' experiences of language decolonization when using AI tools that often privilege standardized English. Translanguaging is defined by Garcia (2009) as "multiple discursive practices in which bilinguals engage to make sense of their bilingual world" (p. 45). CALx helps uncover the ideological forces embedded in AI feedback, including assumptions about correctness and legitimacy. It enables critical analysis of bias, power dynamics, and inclusivity in AI-mediated communication through translanguaging awareness. This approach involves fluidly negotiating linguistic resources across boundaries and emphasizes engaging with diverse voices and perspectives to move beyond monolingual norms (González, 2016). This perspective directly informs the study's focus on bilinguals' navigation of decolonial language practices in digital writing environments and supports the call for equitable, socially aware technological design (Roozafzai, 2024).

In conclusion, language decolonization is a powerful movement that challenges and transforms the linguistic hierarchies imposed by colonial ideologies, championing both epistemic justice and linguistic sovereignty. CDL plays a vital role in this process; it empowers users to assess and reshape digital language norms and algorithmic biases critically. As such, it acts as an enabling condition for fostering language decolonization, equipping individuals to identify and confront the colonial logics ingrained in digital technologies (Mizan & Ferraz, 2024). Moreover, translanguaging awareness, incorporated within CALx practices, highlights the dynamic negotiation of linguistic resources across boundaries. This approach aligns seamlessly with decolonial objectives, celebrating linguistic hybridity and agency. Together, these theoretical frameworks guide the inquiry into how bilingual writers navigate and experience the transformative process of language decolonization, underscoring that their voices are central to shaping a more equitable linguistic landscape.

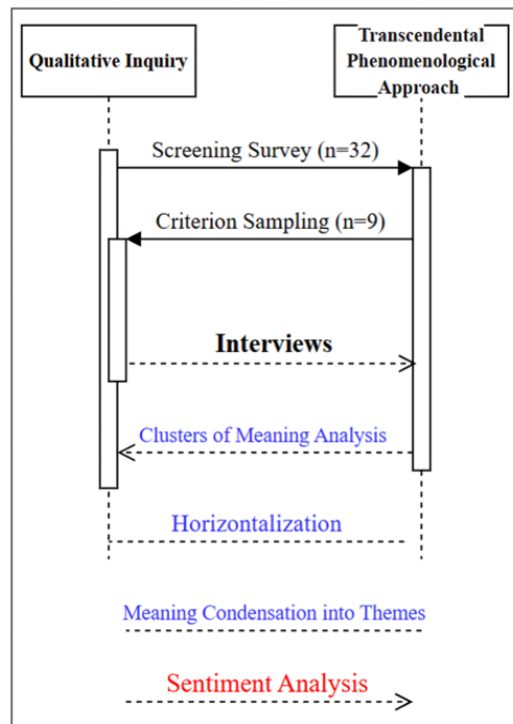


Figure 1. Methodological framework (Figure created by the authors)

METHODOLOGY

Context of the Study

The Emirates is experiencing a linguistic shift, with English prevalent in higher education and professional settings, despite Arabic being the official language (Al-Issa, 2020). The influx of immigrants has made English the lingua franca (Al-Issa, 2020). Emirati millennials use translanguaging and linguistic hybridity, such as Arabizi and code-switching (Hopkyns et al., 2021), which challenge strict English-only policies in universities. This highlights the need for a balanced language policy that maintains Arabic while recognizing English's global role (Al-Issa, 2020).

Recent studies show that AI enhances English writing skills among Arab bilinguals by improving writing quality, grammatical complexity, and vocabulary while reducing anxiety (Eragamreddy, 2025). Tools like Grammarly and ChatGPT have boosted writing proficiency and motivation (Al-Qahtani, 2024), though challenges such as plagiarism, overreliance, and the need to preserve critical thinking and creativity remain (Aljabr et al., 2025; Yatri et al., 2023). While many studies in the Arab world highlight AI's educational benefits and motivational potential (Al-Qahtani, 2024; Eragamreddy, 2025; Mahyoob et al., 2023), they often adopt a monolingual perspective, overlooking the experiences of Arab bilingual writers navigating both Arabic and English. In the United Arab Emirates (UAE), where AI use is widespread among university students (Swidan et al., 2025), research has focused mainly on functionality and ethics, neglecting how AI-generated feedback interacts with bilingual identities or supports linguistic and cultural negotiation, what decolonial scholars term language decolonization (Canagarajah, 2012; Pennycook, 2004). This gap underscores the need for empirical research on AI's role in shaping bilingual expression in the Emirati context, where English holds significant academic value.

Research Design

The study employed social constructivism as a framework for qualitative inquiry, emphasizing that participants' lived experiences shape multiple realities. The researchers and participants co-constructed insights, reflecting the study's epistemological beliefs (Creswell & Poth, 2018). A transcendental phenomenological approach was used to explore language decolonization through AI among bilingual college students of Arab backgrounds (see [Figure 1](#)).

Table 1. Demographic information

Pseudonym	Age	Gender	Qualification	Major	Nationality
Salma	21	Female	Undergraduate	Digital marketing	Egyptian
Noor	20	Female	Undergraduate	Psychology	Palestinian
Raneem	22	Female	Undergraduate	Biomedical engineering	Jordanian
Alia	30	Female	Postgraduate	Education	Emirati
Waed	28	Female	Postgraduate	Chemical engineering	Palestinian
Bassam	31	Male	Postgraduate	Civil engineering	Lebanese
Mohamad	23	Male	Undergraduate	Digital marketing	Jordanian
Abdulrahman	23	Male	Undergraduate	Civil engineering	Jordanian
Saeed	35	Male	Postgraduate	Business	Emirati

Moustakas (1994) defines “transcendental” as perceiving “everything freshly” (p. 34), leading to an examination of a phenomenon that has received limited research attention: “abiding concern,” as described by van Manen (2016, p. 31). The focus was on understanding the impact of language decolonization on bilingual writers, while researchers bracketed personal experiences during data analysis (Creswell & Poth, 2018).

Participants

In phenomenological research, recruiting participants with rich, detailed lived experiences is crucial. This study began with a screening survey targeting bilingual Arab students who used AI-generated tools in academic writing, helping identify those who experienced language decolonization (see [Appendix A](#)). The survey used snowball sampling via WhatsApp, yielding 32 respondents. From this group, criterion sampling was employed to select participants for in-depth interviews. This non-probability method focuses on individuals with specific characteristics relevant to the research (Yüksel & Yıldırım, 2015) and is ideal for phenomenological studies prioritizing insight over statistical generalizability (Creswell & Creswell, 2017; Creswell & Poth, 2018). The inclusion criteria specified bilingual Arab college students, undergraduate or graduate, from the Emirati educational district who experienced language decolonization while using AI tools for academic writing. Ultimately, 9 participants were chosen for interviews based on their responses and willingness to contribute experiential data.

Table 1 provides demographic details for the nine participants in the phenomenological study, using pseudonyms for anonymity. Participants, aged 20 to 35, include both undergraduate and postgraduate bilingual Arab students (4 males, 5 females) from Egypt, Palestine, Jordan, Lebanon, and the UAE, representing various fields, including engineering, marketing, business, education, and psychology. This diversity enhances the exploration of language decolonization in AI-supported academic writing. According to Creswell and Poth (2018), a sample size of 5 to 25 is sufficient for such studies, making the inclusion of nine participants appropriate for capturing the experiences of bilingual writers with AI tools.

Data Collection

Data from qualitative studies are gathered through in-depth interviews that delve into individuals’ lived experiences and the contextual factors that influence them (Bernard & Ryan, 2010). Seidman (2019) notes that phenomenological interviewing often involves multiple sessions with the same participants for accuracy, providing opportunities for clarification and elaboration. This re-interviewing acts as member validation, allowing participants to confirm the interpretation of their experiences (Kvale, 2007, p. 125). The interviews were structured according to Kvale and Brinkmann’s (2009) seven stages to ensure content and construct validity: thematizing the inquiry, designing the study, conducting interviews, transcribing, analyzing data, verifying findings, and reporting. To align with the research questions, the interview questions were designed to be open-ended, general, and focused on understanding the study’s central phenomenon. The interviews were structured as “conceptual interviews” to explore the conceptual dimensions of language decolonization in the AI era and its impact on bilingual writers (Kvale, 2007, p. 71). The Arab bilingual college students were asked ten questions. Follow-up questions were asked based on the participants’ responses (see [Appendix B](#)). Ethical approval for this study was obtained from the participants, who were fully informed of the study’s purpose, procedures, and their rights, including the voluntary nature of participation and the right to withdraw without penalty. Informed consent was obtained in writing before the interview and verbally at the

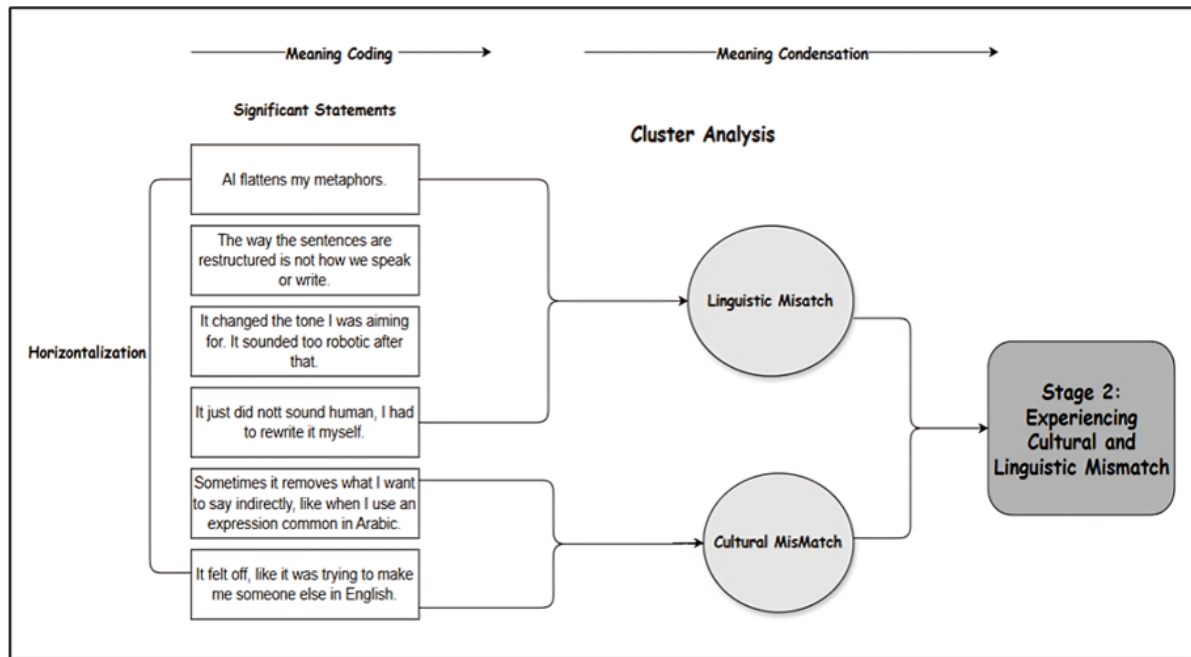


Figure 2. A demonstration of horizontalization and clusters of meaning analysis (Figure created by the authors)

start of each session. Confidentiality and anonymity were maintained by using pseudonyms in all transcripts and publications.

Data Analysis

The data analysis procedures used in this study were based on Kvale's and Brinkmann's (2009) last three stages. These stages involve analyzing the data, verifying the validity and reliability of the findings, and presenting the study's results. The analysis was designed to integrate the study's primary purpose: to understand the developmental stages of language decolonization and its consequences. To achieve this, the interview analysis focused on understanding the nature of the phenomenon using "clusters of meaning" analysis (Creswell & Poth, 2018, p. 82). Based on that, the researchers review the transcripts and identify significant statements that emerged from the participants' responses. These statements provide insight into the experiences of bilingual writers. This process is referred to as "horizontalization" (Moustakas, 1994, p. 125), which involves employing a "meaning coding" mode to decode and categorize the data into meaningful horizons (Kvale, 2007, p. 105). During the coding process, the researchers acted as coders and employed a fully manual, collaborative approach. They held regular meetings to read each transcript line by line, identifying significant statements and emerging meanings. This interactive method facilitated interpretive dialogue and reflexivity, allowing the team to co-construct understanding and reduce individual biases, thereby enhancing communicative validity (Gay et al., 2011). An inductive codebook was created during the early phases of the analysis. Initial codes were derived from the participants' descriptions of their experiences, emotional responses, and strategies for negotiating AI feedback. As the analysis progressed, the codebook was refined iteratively through collaborative discussions, merging overlapping codes, clarifying definitions, and organizing them into broader thematic clusters. Discrepancies among the coders were resolved through discussion and consensus, demonstrating a commitment to analytical reliability. Coder reflexivity was maintained throughout the process, with the researchers critically examining their own linguistic and cultural positions as bilingual scholars and AI users. This reflexive stance informed the interpretation of participants' narratives and helped to prevent the imposition of researchers' assumptions.

The significant horizons identified through this process were then clustered into themes, demonstrating the mode of "meaning condensation" (see Figure 2). This approach helps make sense of the data and understand the phenomenon being studied, thereby establishing the objectivity of the data collected from participants as part of data reliability (Kvale, 2007, p. 106).

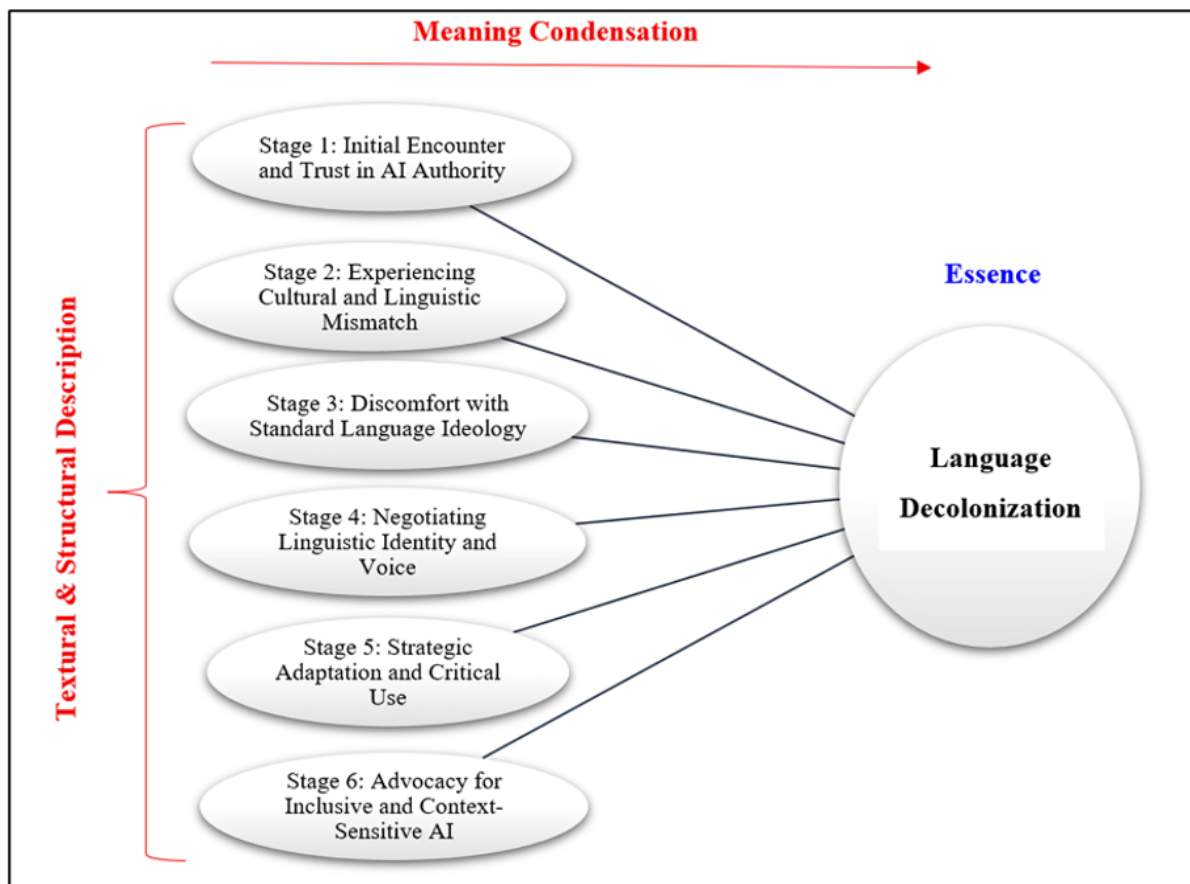


Figure 3. The process of reaching the essence (Figure created by the authors)

After analyzing the significant statements and verified themes, the researchers described what the participants experienced, referred to as “textural description.” They also described the context that influenced participants’ experiences of the developmental stage of language decolonization and its impacts on bilingual writers, known as “structural description.” Using both descriptions, the researchers create a composite description that captures the essence of the phenomenon (see [Figure 3](#)). This focuses on the everyday shared experiences among the participants (Creswell & Poth, 2018).

This study achieved analytic depth, credibility, and trustworthiness by combining manual collaborative coding, iterative theme development, and ongoing coder reflexivity. The thorough, dialogic approach to analysis strengthens the validity of the proposed model and enhances our understanding of AI-mediated language decolonization.

In the qualitative data analysis, sentiment analysis was also used to quantify participants’ emotional trajectories regarding their experiences with AI-mediated language deconstruction in academic writing. After transcribing and coding interview data thematically, sentiment analysis was performed using polarity scoring, which assigns numerical sentiment values from -1 (strongly negative) to +1 (strongly positive) (Liu, 2022). Significant statements about language decolonization were manually coded in an Excel spreadsheet, transforming qualitative data into quantifiable emotional indicators. This approach enriched the interpretive depth of the findings and provided rigor and traceability (Bazeley, 2020). Finally, the data were visualized using line graphs.

RESULTS

To address the first research question, six themes were identified from the cluster analysis of participants’ responses during the interviews, illustrating how the language decolonization process unfolds in six stages for bilingual writers using AI tools.

Results of RQ1. How Do Bilingual Writers Develop Language Decolonization Over Time When Using AI Tools?

Stage 1. Initial encounter and trust in AI authority

In the early stages of engaging with AI tools, bilingual writers often approach the technology with a sense of trust and deference. Their initial experiences are marked by the assumption that AI-generated feedback is inherently correct, objective, and linguistically superior. This belief reflects a broader sociotechnical narrative that positions AI as a neutral authority, particularly persuasive for users navigating academic English, where standards are often rigidly defined by native-speaker norms.

Participants shared how they initially relied heavily on AI suggestions without questioning their implications for voice or cultural expression. Saeed reflected, *"At first, I accepted most changes,"* highlighting his early willingness to adopt AI-generated edits in hopes of producing more 'accurate' English. Similarly, Alia noted, *"I thought it would help me write like a native speaker,"* revealing her early internalization of the idea that AI could elevate her writing to an idealized standard. These narratives illustrate how participants initially were oriented toward conformity rather than critique.

Several participants described this early stage as one of admiration and dependency rather than critical engagement. Noor explained, *"When Grammarly corrected my sentences, I felt relieved; it was like having a teacher who never made mistakes."* Raneem echoed this sentiment, stating, *"I did not question it; I just clicked 'accept all.' It made me feel safe because English still feels like something I must prove myself in."* For others, their trust in AI was linked to academic pressure and the desire for legitimacy. Bassam commented, *"I was worried my supervisor would judge my grammar, so I used AI to make my writing more formal, even if it did not sound like me."* Waed similarly shared, *"AI made my writing sound polished, but later I realized it also made it sound less like my own."*

This stage represents a foundational moment in the decolonization process, preceding the emergence of any resistance or awareness. Trust in AI authority is not merely technological; it is ideological, reflecting deeply rooted assumptions about what constitutes legitimate language. As participants' journeys unfold, however, this initial acceptance begins to shift as they confront AI's limitations in understanding their bilingual realities. Thus, stage 1 sets the stage for more critical engagements to follow, marking the start of a deeper negotiation with language, identity, and power.

Stage 2. Experiencing cultural and linguistic mismatch

As bilingual writers moved beyond their initial trust in AI tools, many began to notice a disconnect between the feedback offered and the cultural or rhetorical nuances embedded in their original texts. This stage marks a turning point: participants begin to experience a sense of cultural and linguistic mismatch, finding AI suggestions to be foreign or inappropriate. This highlighted the realization that AI is not neutral and often overlooks the distinct language patterns shaped by its cultural background.

This conflict became particularly apparent when participants felt their expressions were stripped of voice or flattened into generic, formal prose. Mohamad captured this sentiment by stating, *"AI flattens my metaphors,"* referring to how figurative language influenced by Arabic rhetorical structures was often erased or replaced with more literal phrases. Similarly, Waed observed, *"The way the sentences are restructured is not how we speak or write,"* pointing to the alien nature of the revisions made by AI tools.

Raneem described feeling *"disconnected"* from her own writing after accepting AI changes, saying, *"It removed the rhythm that I wanted. My English started to sound like someone else's."* This sense of alienation was echoed by Salma, who shared, *"Sometimes the tool changes the meaning. I was trying to express emotion, but it made the sentence too formal ... like it lost the feeling."* Abdulrahman added, *"It always tries to make my sentences shorter and colder, but in Arabic we build ideas slowly; it feels more natural to me."*

These moments of friction reflect an awakening, an emerging awareness that AI systems are built on assumptions that prioritize dominant (often monolingual and Western) linguistic norms. Others expressed this discomfort with the lack of cultural sensitivity. Noor noted, *"It changed the tone I was aiming for. It sounded too robotic after that."* These experiences focused on meaning, identity, and expression, suggesting that the AI's design does not support the complex thinking and writing of bilinguals. Participants began to see that the

discomfort they felt was not a personal failure but a structural issue tied to how language technologies reproduce hierarchy. As Alia explained, *"It is not just correcting grammar; it is correcting identity."*

This stage is vital for language decolonization, prompting users to question the universality of AI norms. Participants recognize the limitations and biases of algorithmic tools that exclude non-Western perspectives. The emotional dissonance experienced, ranging from frustration to alienation, becomes a generative force for critical awareness. This initial discomfort evolves into a more profound critique, setting the stage for resistance and strategic action in subsequent stages.

Stage 3. Discomfort with standard language ideology

After experiencing a cultural and linguistic mismatch in stage 2, bilingual writers start to reflect critically on the ideological foundations of AI feedback. They feel discomfort with the standard-language ideology in generative AI, which promotes a sanitized, overly formal version of English that often conflicts with their intended voice and cultural expression. Participants begin questioning AI's linguistic authority as it encourages conformity to dominant norms.

For many, this realization sparked an emotional response. Noor reflected on how the AI's revisions diluted her original tone: *"It did not match my intended style."* Her words suggest a deepening awareness that stylistic voice is not just a technical feature but an extension of self. Raneem described the experience more directly: *"It made me feel like my English is not valid,"* signaling a moment of internal conflict where the language she had developed as a bilingual speaker was implicitly devalued. The pressure to conform to polished academic English created a loss of expressive control, a concern echoed by Mohamad, who explained, *"It corrects phrases that are natural in my English but makes them sound artificial."*

Several participants connected their discomfort with a sense of lost ownership over their writing. Salma expressed, *"I started feeling like my writing wasn't mine anymore. It was grammatically perfect, but it did not sound like me."* Similarly, Abdulrahman noted, *"Every time I accepted its corrections, I felt less confident about my own judgment."* These reflections highlight the emotional toll of conforming to standardized English; writers begin to perceive linguistic 'correctness' as a form of suppression rather than support. Others recognized the ideological bias inherent in AI's authority. Bassam observed, *"The tool assumes there is one correct version of English, but English varies depending on who is speaking. It does not understand that."* Waed added, *"When I write in a way that mixes Arabic rhythm with English, it flags it as wrong, but that is part of how I express myself."* These insights reveal how participants' discomfort evolved into a critique of AI's monolingual approach.

These tensions highlight that AI feedback, instead of providing neutral guidance, operates through an ideological lens that favors standardized English based on Western, monolingual norms. As participants confronted these pressures, they began to resist the urge to conform, marking the early emergence of CDL, the ability to question and reinterpret algorithmic authority. Emotional friction, ranging from frustration to feelings of alienation, became an opportunity for reflection and transformation. As Alia noted, *"The more uncomfortable I felt, the more I realized I needed to decide what kind of English I wanted to write."*

This stage signifies a politicization of the writing experience. Bilingual writers transition from passive acceptance to active questioning, reclaiming their linguistic agency and redefining what "good" English means on their own terms. Consequently, discomfort with standard language ideology becomes a catalyst for developing a decolonial awareness, preparing participants for the strategic resistance and adaptation that follows.

Stage 4. Negotiating linguistic identity and voice

Bilingual writers undergo a significant shift as they experience cultural mismatches and discomfort with AI's standardized feedback. They begin to assert their linguistic identity, actively negotiating AI suggestions against their voice and values. This moment marks a crucial step in language decolonization, a transition from resistance to self-authorship.

The turning point lies in the awareness that bilingual English, shaped by the interaction of Arabic and English, or other linguistic backgrounds, is not deficient but legitimate and expressive. Writers begin to trust their instincts and draw clear boundaries between helpful AI suggestions and those that threaten their expressive authenticity. As Waed explained, *"I rejected suggestions that did not sound like me,"* making clear that

preserving personal voice outweighed following algorithmic patterns. This response shows the emergence of agency and confidence in her bilingual linguistic repertoire. Noor resonated this sentiment when she noted, *"I am comfortable with AI if it expresses my voice,"* suggesting that AI can be a supportive tool, but only if it respects the writer's individuality.

For many participants, this negotiation became a conscious act of self-definition. Salma noted, *"Now I read every correction carefully. If it changes my meaning or my tone, I undo it."* Similarly, Abdulrahman described this shift as empowering: *"Before, I used to follow AI like a teacher. Now, I use it like an assistant...I decide what stays."* Such statements demonstrate the emergence of critical authorship, where bilingual writers begin to reinterpret AI as a tool to serve their rhetorical intentions rather than as a linguistic authority.

Rather than conforming to a monolithic model of English, Noor sets a condition: voice and cultural alignment are non-negotiable. This selective engagement reflects the bilinguals' linguistic agency, in which they actively shape their written discourse rather than letting external norms determine it. Other participants reinforced this pattern of identity negotiation. Raneem stated, *"I know when to ignore AI now. If it changes how I naturally say things, I leave it,"* revealing a new kind of literacy, not just digital, but deeply self-aware and critical. Even Saeed, who initially trusted AI fully, shared that over time he began to *"keep what sounds like me and ignore the rest."*

At this stage, participants view their bilingualism as a rich resource for academic writing rather than a barrier. They begin to filter AI feedback through a decolonial lens, accepting what aligns with their identities and rejecting what does not. Bassam summarized this transformation aptly: *"AI cannot know my background or how I think in two languages. So, I use it, but I do not let it rewrite who I am."* Stage 4 marks a maturation process in which bilingual writers become co-authors with AI, negotiating their voices to reclaim narrative space for expressing complex identities on their own terms. This process demonstrates how decolonial awareness becomes operational, translating reflection into praxis, and transforming AI from a prescriptive mechanism into a dialogic collaborator.

Stage 5. Strategic adaptation and critical use

Bilingual writers, after developing their linguistic identity, begin to approach AI tools with strategic intentionality. This phase marks the emergence of CDL, where writers not only use AI but also evaluate and regulate its influence in alignment with their communicative values and goals. The shift here is from emotional resistance to conscious adaptation, viewing AI not as an authority but as a resource to be used selectively.

Writers develop personalized strategies for navigating AI feedback. Some compare versions to evaluate which better communicates their intent. Saeed illustrated this process clearly: *"Now I compare versions and keep mine if it works better."* This approach signals a balance between openness to improvement and trust in one's voice. Rather than rejecting AI entirely, writers begin to use it on their terms, integrating its strengths while preserving their originality. Saeed echoed this adaptive stance when he said, *"I use ChatGPT, but I decide when it fits me,"* emphasizing autonomy and personalization. AI becomes a collaborator, not a controller. This strategic mindset empowers writers to manage the tension between algorithmic feedback and authentic expression. Bassam described how he filters suggestions based on emotional and stylistic alignment: *"I implement feedback that improves clarity, but I skip the ones that make my writing sound like someone else."* His practice reveals a layered decision-making process, grounded in critical awareness of both linguistic function and identity preservation. This demonstrates how participants adapt their strategy flexibly to the context and audience, thereby showcasing situational digital literacy. Other participants also articulated their evolving strategies. Raneem, for example, emphasized timing in her use: *"I do a first draft on my own, then ask AI for feedback on specific areas I want to improve."* These strategies reflect both confidence and control.

Noor explained how this strategy became internalized by stating, *"AI is useful, but I filter everything through my sense of voice. If it changes the emotion, I reject it."* This demonstrates that critical literacy for these bilingual individuals is not solely technical but also influenced by feelings and identity. Alia supported this perspective, saying, *"I learned to engage with the AI ... to specify the kind of feedback I want. It is no longer leading; I am."* These reflections emphasize how users are starting to redefine the relationship between humans and AI, shifting from passive consumption to active collaboration.

Stage 5 is characterized by empowerment through selective use. Bilingual writers proactively leverage AI to enhance their writing while preserving their linguistic and cultural integrity. Through flexible adaptation, they operationalize decolonial awareness, transforming critique into strategy. AI becomes a collaborator that they direct, not a standard to which they must conform. This stage embodies the transformation of bilingual writers into reflective digital practitioners, capable of negotiating technology in ways that sustain their voice, identity, and agency.

Stage 6. Advocacy for inclusive and context-sensitive AI

As bilingual writers gain confidence in their voices and in using AI tools, they begin to advocate for changes to AI systems. This shift marks a move from personal agency to collective advocacy, calling for systemic changes in how AI engages with linguistic diversity. This stage marks a transition from individual empowerment to collective decolonial praxis, where writers envision a more inclusive, flexible, and culturally responsive form of AI. Participants express a desire for feedback that acknowledges global Englishes, especially those influenced by bilingual and Arabic-speaking users. Their calls reflect a decolonial mindset, rejecting standardized norms in favor of tools that respect diverse English varieties, cultural references, and rhetorical traditions.

Waed captured this aspiration directly: *"They should be more flexible and accept diverse styles of English."* Her call for flexibility reflects an acute awareness of linguistic diversity and a demand for systems that do not reduce writing to narrow grammatical conventions. Similarly, Noor emphasized the need for feedback systems that account for variation and intentional style: *"I think AI should give suggestions without assuming one right way. I want it to support my voice, not erase it."* Participants also offered suggestions grounded in their writing experiences. Raneem recommended: *"Maybe AI can learn from how we write, not just correct us. It should notice patterns and offer suggestions based on our style."* This quote reflects a vision of reciprocal AI learning, where the tool becomes more dialogic and adaptive, learning from the user rather than simply correcting them. Abdulrahman confirmed this idea when he said, *"If AI can be trained with different Englishes, including how Arabs use English, it will be fairer for all students."* Salma, reflecting on his multilingual experience, added: *"I think AI should be trained on our ways of thinking. Language is not just rules; it is culture, emotion, and experience."* This insight highlights the deeper epistemological issue at stake: that AI systems must recognize language as more than syntax; it is a carrier of identity, emotion, and worldview. Bassam added, *"AI should ask what we mean, not just fix what it thinks is wrong."* His statement underscores the shift from correction to conversation, envisioning AI as dialogic rather than prescriptive.

In this stage, participants' voices converge around a broader advocacy for context-sensitive AI systems capable of recognizing stylistic variation, rhetorical nuance, and the legitimacy of multilingual identities. Their reflections move beyond critique to co-design, positioning bilingual writers as ethical stakeholders in shaping the future of language technologies.

This advocacy represents the culmination of the decolonial process: a transformation from compliance to resistance, and ultimately to collective empowerment. By envisioning AI that honors linguistic plurality and user agency, bilingual writers reclaim their role as co-creators of meaning in digital spaces. Through this process, they redefine AI not as a gatekeeper of correctness but as a platform for epistemic justice, one that supports, rather than suppresses, diverse voices and cultural expression.

To quantify the qualitative data generated from the interview, a sentiment analysis was deployed. The sentiment scores in the graph reflect the emotional tone (valence) expressed by participants at each stage of their experience with AI in writing. These scores range from -1 (very negative) to +1 (very positive), where negative scores, e.g., -0.6, reflect emotional discomfort, frustration, or disempowerment; positive scores, e.g., +0.7, indicate confidence, satisfaction, or empowerment; and scores around 0 suggest emotional ambivalence or uncertainty (see [Figure 4](#)). These values capture the emotional progression bilingual writers undergo as they engage with AI tools throughout the process of language decolonization. Initially, participants approach AI with a moderate level of trust and optimism. However, as they encounter cultural and linguistic mismatches, their emotional tone shifts to frustration, particularly when AI feedback reinforces standard language ideologies that clash with their identity. This negative sentiment peaks in the third stage, where writers feel their bilingual expression is being erased. However, as they begin to negotiate their voice and assert ownership of their language use, the sentiment becomes more positive. In the final stages, they

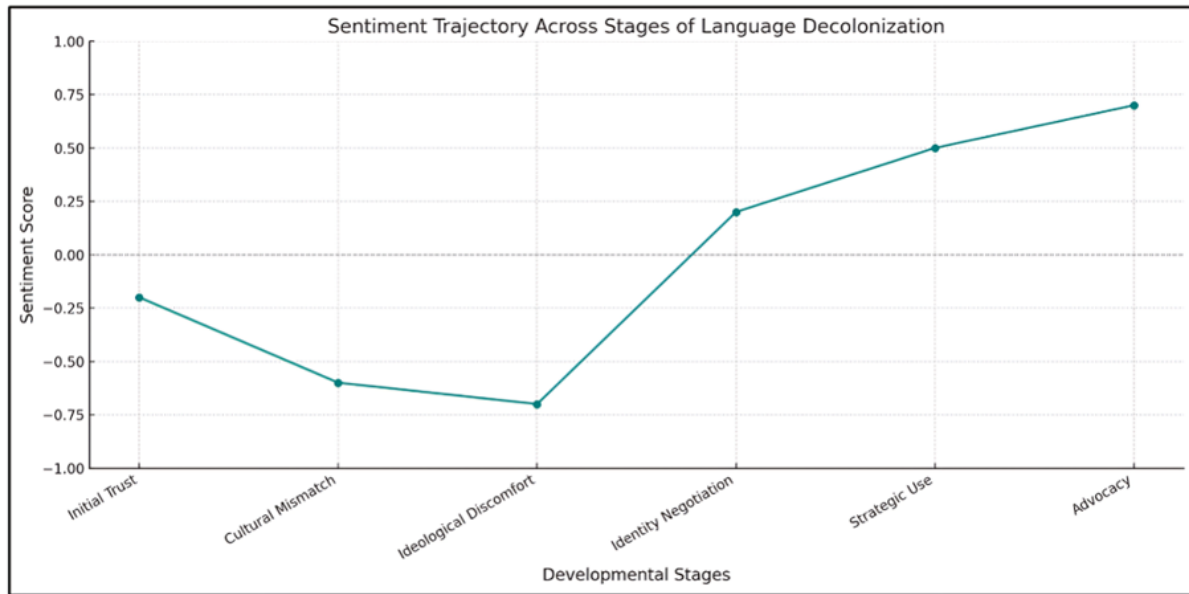


Figure 4. Emotional trajectory of the developmental stages of language decolonization (Figure created by the authors)

Table 2. Explanation of the experienced emotional trajectory

Stage	Sentiment score	Explanation
Stage 1. Initial trust	-0.2	Slight unease—Participants trust AI but feel unsure about its implications.
Stage 2. Cultural mismatch	-0.6	Strong negative feelings emerge as participants often feel misunderstood or culturally erased.
Stage 3. Ideological discomfort	-0.7	Peak frustration occurs when AI pushes standardized norms that conflict with identity.
Stage 4. Identity negotiation	+0.2	Emotional recovery begins as participants reclaim their voice and assert ownership.
Stage 5. Strategic use	+0.5	Confidence grows as participants use AI critically and on their own terms.
Stage 6. Advocacy	+0.7	Empowerment and hope—Participants envision inclusive AI systems and advocate for change.

demonstrate critical awareness and advocate for inclusive, culturally responsive AI systems, reflecting empowerment, confidence, and a sense of hope (see [Table 2](#)). This emotional trajectory illustrates a decolonial shift from passive acceptance to active resistance and transformation.

Results of RQ2. What Consequences Do Bilingual Writers Experience From Language Decolonization While Using AI Generative Tools in Their Academic Writing?

To address the second research question regarding the perceived consequences of language decolonization among bilingual writers who use AI-generated tools in their academic writing, five themes emerged from participants' lived experiences. These themes capture the essence of the language decolonization experience through AI.

Theme #1. Increased confidence and ownership

As bilingual writers moved through the decolonization process, many reported a growing sense of confidence and ownership over their English writing. Instead of feeling compelled to conform to native-like standards, they began to assert their right to express themselves authentically. This self-assurance was a direct result of resisting AI-generated feedback that did not align with their voice. For instance, Waed stated, *"Now I feel like I have a right to write in my way,"* reflecting a shift from passive acceptance to empowered authorship. This transformation highlights how language decolonization can foster self-trust and linguistic agency.

Theme #2. Enhanced critical digital literacy

A key consequence of the decolonial experience was the development of CDL. Participants became more discerning in their engagement with AI tools, evaluating suggestions based on their own cultural and academic needs rather than assuming technological superiority. Raneem noted, *"I do not just accept the suggestions anymore...I think about what makes sense for me."* This shows a shift from reliance to reflection, as writers learned to filter AI feedback through a personal, critical lens. The experience encouraged a more intentional and strategic use of technology.

Theme #3. Emotional empowerment and validation

Language decolonization also brought emotional rewards. Many participants described a renewed sense of validation and pride in their bilingual identity, particularly when they chose to preserve their unique expression. Noor expressed, *"It made me feel like my English matters too,"* suggesting that resisting AI standardization affirmed her linguistic legitimacy. This emotional empowerment is crucial, particularly in academic spaces that often privilege standardized norms. Feeling heard and seen through one's language use contributed to a stronger connection to their writing and to their self-worth.

Theme #4. Tension between correction and creativity

Despite the agency's growth, several writers continued to experience internal conflict when balancing academic expectations with personal expression. The need to produce academically correct writing sometimes clashes with the desire to retain creativity and cultural nuance. Alia reflected, *"Sometimes I am still unsure if I should follow my expression or change it."* This lingering tension underscores the complex terrain that bilingual writers navigate, seeking both recognition and compliance while resisting the erasure of their voice.

Theme #5. Desire to influence future AI design

Many participants voiced a forward-looking consequence of their experience: a desire to contribute to the design of AI tools that better accommodate linguistic diversity. They envisioned systems that are more inclusive, flexible, and attuned to cultural contexts. As Salma suggested, *"They should ask learners what kind of feedback works for them."* This appeal reflects a broader commitment to shaping technologies that support, rather than suppress, multilingual expression. It marks the final stage of the decolonial journey, where users transition from critical consumers to active stakeholders in the development of technology.

The sentiment analysis of bilingual writers using AI tools for language decolonization shows a generally positive outlook. The theme "increased confidence and ownership" scored 0.7, indicating empowerment in asserting bilingual identity. Other themes, such as "emotional empowerment and validation" (0.6) and "desire to influence future AI design" (0.8), reflect pride and hope for inclusive technology. "Enhanced critical digital literacy" received a moderate score (0.5), showing thoughtful use of AI. The only negative score (-0.2) was for "tension between correction and creativity," illustrating a struggle between academic norms and personal voice. Overall, the analysis suggests that, while the decolonial process involves tensions, it ultimately fosters confidence and critical reflection (see [Figure 5](#)).

DISCUSSION

This study presents the AI-mediated language decolonization model ([Figure 6](#)), which outlines six developmental stages that bilingual writers undergo when engaging with AI tools in academic writing. The process begins with initial trust in AI, followed by cultural and linguistic mismatch, and ideological discomfort, which act as catalysts for transformation. These early stages reveal how uncritical trust in AI reflects underlying linguistic coloniality, as algorithmic "correctness" reinforces dominant language norms (Bender et al., 2021).

As writers encounter misalignment between AI feedback and their cultural-linguistic identities, they move into identity negotiation and strategic adaptation, marking the emergence of CDL, the capacity to evaluate and reshape digital language norms and algorithmic biases critically. This awareness enables writers to question colonial logics embedded in AI and assert linguistic agency. CDL thus becomes an enabling condition

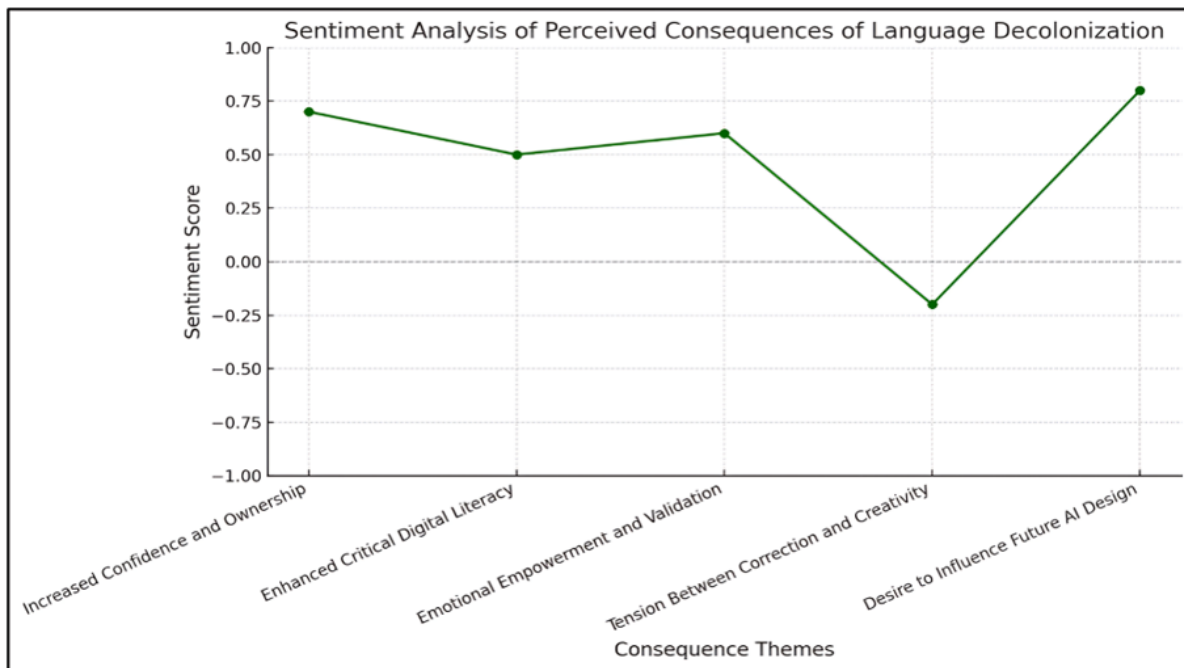


Figure 5. Perceived consequences of language decolonization (Figure created by the authors)

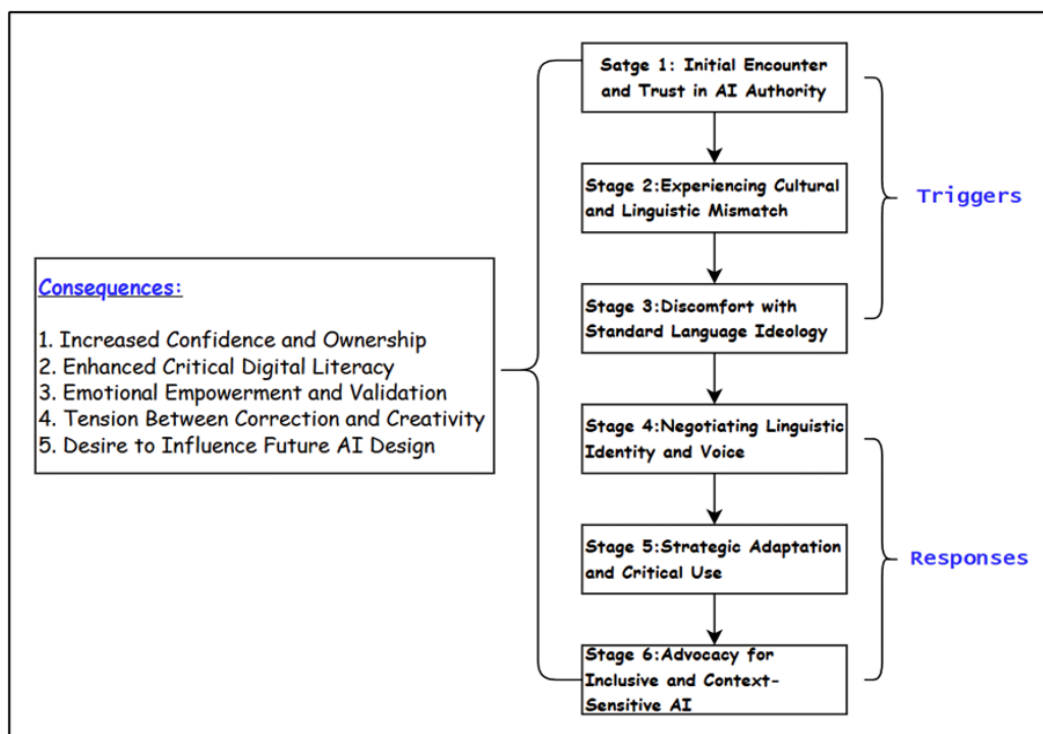


Figure 6. AI-mediated language decolonization model (Figure created by the authors)

for language decolonization, allowing users to resist and reimagine linguistic hierarchies imposed by colonial ideologies (Mizan & Ferraz, 2024).

In the final stage, advocacy for inclusive AI, participants demonstrate translingual awareness, the ability to fluidly negotiate linguistic resources across boundaries, transforming AI from a site of domination into one of negotiation. Through this process, writers reclaim epistemic and linguistic sovereignty, aligning with decolonial aims of justice and plurality. This trajectory, from passive acceptance to critical engagement and advocacy, extends decolonial language education scholarship (Canagarajah, 2012; Pennycook, 2004) by showing how emotional and cognitive responses such as frustration or alienation catalyze agency and voice.

The model contributes an experience-based account of how decolonial practices unfold through AI-mediated writing. The initial trust in AI mirrors critiques of algorithmic authority (Bender et al., 2021), while experiences of cultural and rhetorical erasure highlight AI's limits in accommodating plurilingual norms (Albeih & Rice, 2025; Godwin-Jones, 2024). Where this study advances the field is in tracing critical consciousness as an evolving emotional and cognitive process, from discomfort and loss of authenticity to agency and strategic resistance.

This progression echoes and extends work on CDL (Bacalja et al., 2021; Noble, 2018), revealing not only awareness of bias but also action upon it. It operates CALx by showing how bilinguals interpret AI feedback as ideologically charged and begin to assert voice and ownership (Norton, 2013). Ultimately, decolonial language practices emerge dynamically through digitally mediated writing, transforming AI from a mechanism of epistemic domination into a site of negotiation and subversion.

Emotional tensions, such as frustration, isolation, and doubt, mirror concerns about linguistic erasure and cultural dissonance (García & Otheguy, 2020; Zaman et al., 2024), yet these experiences become generative forces. As participants assert linguistic ownership, they develop metalinguistic awareness and translanguaging agency, reflecting the shift in decolonial theory (Mignolo, 2007) from conformity to epistemic resistance rooted in voice.

Thus, the perceived consequences of AI use are pivotal turning points shaping bilinguals' relationships with language, power, and technology (Alhabbash, 2022). The study demonstrates how digital encounters with bias can lead to transformative practice, as bilinguals transform AI from a monologic authority into a dialogic partner, a tool for asserting, rather than suppressing, multilingual identity.

CONCLUSION

This study involved nine bilingual participants and adhered to phenomenological research principles, emphasizing depth of insight over sample size (Creswell & Poth, 2018). The goal was to develop a theoretical understanding of how bilinguals engage in language decolonization through AI generative tools in academic writing. Through reflective narratives and iterative analysis, a six-stage developmental model emerged, integrating perspectives from CDL, decolonial theory, and applied linguistics.

The findings illuminate the dynamic process by which bilingual writers transition from initial trust in AI authority to advocacy for inclusive, culturally responsive AI. Across stages, participants moved from passive reliance on algorithmic correction toward critical agency, strategic adaptation, and collective advocacy. The model reframes language decolonization not as a fixed state but as an evolving process of reflection, resistance, and reclamation, where emotional discomfort becomes a catalyst for empowerment. This progression demonstrates how AI-mediated writing can serve as both a site of colonial reproduction and a medium for linguistic resistance and identity negotiation.

This theoretical model offers a dynamic perspective on AI, language, and power, expanding the scope of decolonial inquiry in digital writing contexts. While the model provides rich conceptual insight, its applicability may vary across linguistic and educational contexts. Future research can further validate and extend this framework.

First, longitudinal studies could examine how these stages unfold over time and across writing genres, revealing temporal patterns in decolonial awareness. Second, comparative studies could test the model in multilingual settings beyond the UAE, particularly in regions where English serves as both a medium of instruction and a site of ideological tension. Third, mixed-methods research could integrate quantitative measures to explore relationships between AI usage, identity negotiation, and writing performance across broader bilingual populations.

From a practical perspective, the model holds promise for the design of AI literacy curricula in higher education, particularly for bilingual and multilingual learners. Educators can use the six stages as a reflective scaffold to guide students in critically navigating AI feedback and asserting their linguistic agency. In parallel, AI developers may draw upon these insights to design tools that are context-sensitive, user-responsive, and culturally aware, embedding mechanisms that recognize rhetorical diversity and the legitimacy of global Englishes.

Lastly, this study's theoretical contribution opens new directions for exploring algorithmic justice in language learning, where ethical evaluation extends beyond fairness and accuracy to include voice, agency, and cultural authenticity. By positioning bilinguals as co-constructors of meaning rather than passive recipients of algorithmic authority, this study invites a reimagining of what inclusive, equitable, and decolonial AI-assisted writing pedagogies might look like.

Author contributions: **MA:** conceptualization, data curation, formal analysis, investigation, methodology, project administration, resources, software, supervision, validation, visualization, writing – original draft, writing – review & editing; **NAM:** investigation, methodology, resources, writing – original draft, writing – review & editing; **HO:** funding acquisition, resources, writing – original draft, writing – review & editing; **SA:** funding acquisition, writing – original draft, writing – review & editing. All authors approved the final version of the article.

Funding: The authors received no financial support for the research and/or authorship of this article.

Ethics declaration: This study used a qualitative phenomenological design involving direct participation. Formal approval from an institutional ethics committee was not obtained, as the study was non-interventional and did not involve vulnerable populations or the collection of identifiable sensitive personal data. Written informed consent was obtained from all participants prior to data collection. Participants were informed about the purpose of the study, the voluntary nature of participation, and their right to withdraw at any time. Participant confidentiality was strictly maintained. Identifying information was removed, pseudonyms were used, and all data were securely stored with access limited to the research team.

AI statement: Generative AI and AI-based tools were used for language editing and improvement of grammar and clarity, as well as for assistance in the visual presentation of some figures.

Declaration of interest: The authors declared no competing interest.

Data availability: Data generated or analyzed during this study are available from the authors on request.

REFERENCES

- Afolabi, O. S. (2020). Globalisation, decoloniality and the question of knowledge production in Africa. *Journal of Higher Education in Africa*, 18(1), 93-110. <https://doi.org/10.57054/jhea.v18i1.1456>
- Aguiar, C. E. S., & da Silva, D. K. M. (2024). Artificial intelligence and decoloniality: Insurgent arrangements and the question concerning cosmotechnics. *Digital Theory, Culture & Society*, 2(2), 121-130. <https://doi.org/10.61126/dtcs.v2i2.49>
- Al Mohammedi, N. A. (2022). Learning by design: The transformative pedagogical experience of college students in extending monomodal texts into multimodal [Doctoral dissertation, United Arab Emirates University]. Scholarworks@UAEU. https://scholarworks.uaeu.ac.ae/all_dissertations/289/
- AlAfnan, M. A. (2025). Artificial intelligence and language: Bridging Arabic and English with technology. *Journal of Ecohumanism*, 4(1), 240-256. <https://doi.org/10.62754/joe.v3i8.4961>
- Albeih, H. H. M., & Rice, M. F. (2025). Generative AI and language diversity: Implications for teachers and learners. *Arab World English Journal*, 16(1), 43-54. <https://doi.org/10.24093/awej/vol16no1.3>
- Alhabbash, M. O. (2022). The noise, the resistance, and the message in construing the construction of Arab bilinguals-biliterates' trans-identity space: A grounded theory approach [Doctoral dissertation, United Arab Emirates University]. Scholarworks@UAEU. https://scholarworks.uaeu.ac.ae/all_dissertations/292/
- Alhabbash, M., Al Mohammedi, N., & Omar, H. (2025a). A case study on empowering bilingual writers: Gauging the gain of authentic situated materials on college students' writing skills. *International Journal of Society, Culture & Language*, 13(2), 193-220. <https://doi.org/10.22034/ijsc.2025.2056639.3983>
- Alhabbash, M., Ibrahim, A., & Al Sheikh, N. (2025b). Storying of Arabic bilingual-biliterate identity reconstruction. *Journal of Literacy Research*, 57(4), 441-470. <https://doi.org/10.1177/1086296X251401501>
- Al-Issa, A. (2017). English as a medium of instruction and the endangerment of Arabic literacy: The case of the United Arab Emirates. *Arab World English Journal*, 8(3), 3-17. <https://doi.org/10.24093/awej/vol8no3.1>
- Al-Issa, A. (2020). *Multilingualism, language management, and social diversity in the United Arab Emirates*. Routledge. <https://doi.org/10.4324/9780429463860-9>
- Aljabr, F., Zakarneh, B. M., Annamalai, N., & Al Said, N. (2025). Integrating AI: Challenges and opportunities in teaching English writing skills. *World Journal of English Language*, 15(5), 371-382. <https://doi.org/10.5430/wjel.v15n5p371>
- Al-Qahtani, F. (2024). Revitalizing Saudi EFL students' writing proficiency: Harnessing artificial intelligence with Grammarly. *Menoufia University Faculty of Arts Journal*. <https://doi.org/10.21608/sjam.2024.309690.2418>

- Atari, M., Xue, M. J., Park, P. S., Blasi, D., & Henrich, J. (2023). *Which humans?* OSF. <https://osf.io/preprints/psyarxiv/5b26t>
- Bacalja, A., Aguilera, E., & Castrillón-Ángel, E. F. (2021). Critical digital literacy. In J. Z. Pandya, R. A. Mora, J. H. Alford, N. A. Golden, & R. S. de Roock (Eds.), *The handbook of critical literacies*. Routledge. <https://doi.org/10.4324/9781003023425-43>
- Balta, N. (2023). Ethical considerations in using AI in educational research. *Journal of Research in Didactical Sciences*, 2(1), Article 14205. <https://doi.org/10.51853/jorids/14205>
- Bazeley, P. (2020). *Qualitative data analysis: Practical strategies*. SAGE.
- Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency* (pp. 610-623). ACM. <https://doi.org/10.1145/3442188.3445922>
- Caines, A., Buttery, P., & Seed, G. (2025). Towards equitable, diverse, and inclusive language models in AI-enhanced education technology for language learners. In L. Wei, & Y. Chao (Eds.), *The Routledge handbook of the sociopolitical context of language learning* (pp. 401-414). Routledge. <https://doi.org/10.4324/9781003398172-29>
- Canagarajah, S. (2012). *Translingual practice: Global Englishes and cosmopolitan relations*. Routledge. <https://doi.org/10.4324/9780203073889>
- Canagarajah, S. (2020). Dialogues on translingual research and practice: Weaving threads with Suresh Canagarajah's views. *Revista X*, 15(1), 7-31. <https://doi.org/10.5380/rvx.v15i1.71807>
- Challapalli, S. S. N., Jaiswal, S., & Bahadur, P. S. (2020). Latest advances in natural language processing and their applications in everyday life. *International Journal for Modern Trends in Science and Technology*, 6(10), 31-35. <https://doi.org/10.46501/IJMTST061006>
- Cole, J. Y. (2025). Using AI in the bilingual classroom to enhance writing skills in second language learning: A case study. *Journal of Education, Innovation and Communication*, 7(3), 51-58. <https://doi.org/10.34097/jeicom-7-3-5>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approach*. SAGE.
- Creswell, W. J., & Poth, N. (2018). *Qualitative inquiry research design: Choosing among five approaches*. SAGE.
- Dignum, V. (2019). *Responsible artificial intelligence: How to develop and use AI responsibly*. Springer. <https://doi.org/10.1007/978-3-030-30371-6>
- Dizon, G. (2024). ChatGPT as a tool for self-directed foreign language learning. *Innovation in Language Learning and Teaching*. <https://doi.org/10.1080/17501229.2024.2413406>
- Elder, J. W. (1971). The decolonization of educational culture: The case of India. *Comparative Education Review*, 15(3), 288-295. <https://doi.org/10.1086/445539>
- Eragamreddy, N. (2025). AI in ELT: ChatGPT's role in English language teaching and learning. In N. J. Jomaa (Ed.), *Using AI tools in text analysis, simplification, classification, and synthesis* (pp. 161-198). IGI Global. <https://doi.org/10.4018/979-8-3693-9511-0.ch006>
- García, O. (2009). Education, multilingualism, and translanguaging in the 21st century. In A. Mohanty, M. Panda, R. Phillipson, & T. Skutnabb-Kangas (Eds.), *Multilingual education for social justice: Globalising the local* (pp. 128-145). Orient Blackswan.
- García, O., & Otheguy, R. (2020). Plurilingualism and translanguaging: Commonalities and divergences. *International Journal of Bilingual Education and Bilingualism*, 23(1), 17-35. <https://doi.org/10.1080/13670050.2019.1598932>
- García, O., Flores, N., Seltzer, K., Wei, L., Otheguy, R., & Rosa, J. (2021). Rejecting abyssal thinking in the language and education of racialized bilinguals: A manifesto. *Critical Inquiry in Language Studies*, 18(3), 203-228. <https://doi.org/10.1080/15427587.2021.1935957>
- Gay, L. R., Mills, G. E., & Airasian, P. W. (2011). *Educational research: Competencies for analysis and applications*. Pearson.
- Godwin-Jones, R. (2024). *Generative AI, pragmatics, and authenticity in second language learning*. arXiv.
- González, N. (2016). Imagining literacy equity: Theorizing flows of community practices. *Literacy Research: Theory, Method, and Practice*, 65(1), 69-93. <https://doi.org/10.1177/2381336916661528>

- Greatorex, J., & Coleman, V. (2021). Defining and understanding decolonisation in the context of the 14-18 curriculum in England. In L. Gómez Chova, A. López, & I. Candel Torres (Eds.), *Proceedings of the 14th Annual International Conference of Education, Research and Innovation* (pp. 3504-3513). IATED. <https://doi.org/10.21125/iceri.2021.0854>
- Hopkyns, S., Zoghbor, W., & Hassall, P. J. (2021). The use of English and linguistic hybridity among Emirati millennials. *World Englishes*, 40(2), 176-190. <https://doi.org/10.1111/weng.12506>
- Jandrić, P. (2019). The postdigital challenge of critical media literacy. *The International Journal of Critical Media Literacy*, 1(1), 26-37. <https://doi.org/10.1163/25900110-00101002>
- Jones, P. L., Mahelona, K., Duncan, S., & Leoni, G. (2023). Kia tangata whenua: Artificial intelligence that grows from the land and people. *Ethical Space: The International Journal of Communication Ethics*, 20. <https://doi.org/10.21428/0af3f4c0.9092b177>
- Kuteeva, M., & Andersson, M. (2024). Diversity and standards in writing for publication in the age of AI—Between a rock and a hard place. *Applied Linguistics*, 45(3), 561-567. <https://doi.org/10.1093/applin/amae025>
- Kvale, S. (2007). *Doing interviews*. SAGE. <https://doi.org/10.4135/9781849208963>
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. SAGE.
- Liu, B. (2022). *Sentiment analysis: Mining opinions, sentiments, and emotions*. Nota.
- Mahyoob, M., Al-Garaady, J., & Alblwi, A. (2023). A proposed framework for human-like language processing of ChatGPT in academic writing. *International Journal of Emerging Technologies in Learning*, 18(14), 282-293. <https://doi.org/10.3991/ijet.v18i14.41725>
- Martin, W., & Degollado, E. D. (2022). Review of the book *Critical applied linguistics: A critical (re-) introduction*, 2nd ed., by A. Pennycook. *Language in Society*, 51(4), 719-722. <https://doi.org/10.1017/S0047404522000124>
- Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., & Galstyan, A. (2021). A survey on bias and fairness in machine learning. *ACM Computing Surveys*, 54(6), Article 115. <https://doi.org/10.1145/3457607>
- Mignolo, W. D. (2007). Delinking: The rhetoric of modernity, the logic of coloniality and the grammar of decoloniality. *Cultural Studies*, 21(2-3), 449-514. <https://doi.org/10.1080/09502380601162647>
- Mizan, S. M., & Ferraz, D. (2024). Digital colonialism in language education: From the global North's celebratory discourse to capitalist colonization of the global South. *Cadernos de Letras da UFF*, 35(69), 188-209. <https://doi.org/10.22409/cadletrasuff.v35i69.63395>
- Mohamed, S., Png, M. T., & Isaac, W. (2020). Decolonial AI: Decolonial theory as sociotechnical foresight in artificial intelligence. *Philosophy & Technology*, 33(4), 659-684. <https://doi.org/10.1007/s13347-020-00405-8>
- Morrison, B., & Evans, S. (2018). Supporting non-native speaker student writers making the transition from school to an English-medium university. *Language Learning in Higher Education*, 8(1), 1-20. <https://doi.org/10.1515/cercles-2018-0001>
- Moustakas, C. (1994). *Phenomenological research methods*. SAGE. <https://doi.org/10.4135/9781412995658>
- Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.
- North, B. (2021). The CEFR companion volume—What's new and what might it imply for teaching/learning and for assessment. *CEFR Journal*, 4(1), 5-24. <https://doi.org/10.37546/JALTSIG.CEFR4-1>
- Norton, B. (2013). *Identity and language learning: Extending the conversation*. Multilingual Matters. <https://doi.org/10.21832/9781783090563>
- Omiye, J. A., Gui, H., Rezaei, S. J., Zou, J., & Daneshjou, R. (2024). Large language models in medicine: The potentials and pitfalls: A narrative review. *Annals of Internal Medicine*, 177(2), 210-220. <https://doi.org/10.7326/M23-2772>
- Omodan, B. I., & Marongwe, N. (2024). The role of artificial intelligence in decolonising academic writing for inclusive knowledge production. *Interdisciplinary Journal of Education Research*, 6(s1), 1-14. <https://doi.org/10.38140/ijer-2024.vol6.s1.06>
- Ortega, L. (2017). New CALL-SLA research interfaces for the 21st century: Towards equitable multilingualism. *Calico Journal*, 34(3), 285-316. <https://doi.org/10.1558/cj.33855>
- Pahl, K. H., & Rowsell, J. (2011). Artifacts of critical literacy: A new perspective for literacy education. *Berkeley Review of Education*, 2(2), 129-151. <https://doi.org/10.5070/B82110050>

- Park, C. J., Kim, Y. H., Jang, Y., Umadevi, G. R., & Lim, H. S. (2020). An AI service to support communication and language learning for people with developmental disability. *Journal of the Korea Convergence Society*, 11(6), 51-57. <https://doi.org/10.15207/JKCS.2020.11.6.051>
- Pennycook, A. (2004). *Critical applied linguistics. The handbook of applied linguistics*. Routledge. <https://doi.org/10.1002/9780470757000.ch32>
- Pennycook, A. (2006). *Global Englishes and transcultural flows*. Routledge. <https://doi.org/10.4324/9780203088807>
- Peters, M., Neumann, M., Iyyer, M., Gardner, M., Clark, C., Lee, K., & Zettlemoyer, L. (2018). Deep contextualized word representations. In *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies* (pp. 2227-2237). Association for Computational Linguistics. <https://doi.org/10.18653/v1/N18-1202>
- Picasso, F., Atenas, J., Havemann, L., & Serbati, A. (2024). Advancing critical data and AI literacies through authentic and real-world assessment design using a data justice approach. *Open Praxis*, 16(3), 291-310. <https://doi.org/10.55982/openpraxis.16.3.667>
- Radford, A., Wu, J., Child, R., Luan, D., Amodei, D., & Sutskever, I. (2019). Language models are unsupervised multitask learners. *CDN*. https://cdn.openai.com/better-language-models/language_models_are_unsupervised_multitask_learners.pdf
- Roozafzai, Z. S. (2024). Unveiling power and ideologies in the age of algorithms: Exploring the intersection of critical discourse analysis and artificial intelligence. *Qeios*. <https://www.qeios.com/read/60YE02>
- Shao, M., Basit, A., Karri, R., & Shafique, M. (2024). Survey of different large language model architectures: Trends, benchmarks, and challenges. *IEEE Access*, 12. <https://doi.org/10.1109/ACCESS.2024.3482107>
- Swidan, A., Lee, S. Y., & Romdhane, S. B. (2025). College students' use and perceptions of AI tools in the UAE: Motivations, ethical concerns, and institutional guidelines. *Education Sciences*, 15(4), Article 461. <https://doi.org/10.3390/educsci15040461>
- Tseng, W., & Warschauer, M. (2023). AI-writing tools in education: If you cannot beat them, join them. *Journal of China Computer-Assisted Language Learning*, 3(2), 258-262. <https://doi.org/10.1515/jccall-2023-0008>
- Van Manen, M. (2016). *Researching lived experience: Human science for an action-sensitive pedagogy*. Routledge.
- Warschauer, M., Tseng, W., Yim, S., Webster, T., Jacob, S., Du, Q., & Tate, T. (2023). *The affordances and contradictions of AI-generated text for second language writers*. SSRN. <https://doi.org/10.2139/ssrn.4404380>
- Wei, L. (2018). Translanguaging as a practical theory of language. *Applied Linguistics*, 39(1), 9-30. <https://doi.org/10.1093/applin/amx039>
- Yatri, D., Anugerahwati, M., & Setyowati, L. (2023). Artificial intelligence (AI) in language learning (English and Arabic class): Students' and teachers' experiences and perceptions. *Transformational Language, Literature, and Technology Overview in Learning*, 3(1), 1-12. <https://doi.org/10.55047/transtool.v3i1.1338>
- Yin, F. (2025). Encoding/decoding in artificial intelligence: Global AI and local languages. *Media, Culture & Society*, 47(8), 1691-1701. <https://doi.org/10.1177/01634437251360381>
- Yüksel, P., & Yıldırım, S. (2015). Theoretical frameworks, methods, and procedures for conducting phenomenological studies in educational settings. *Turkish Online Journal of Qualitative Inquiry*, 6(1), 1-20. <https://doi.org/10.17569/tojqi.59813>
- Zaman, S., Hussain, M. S., & Tabassam, M. (2024). Use of artificial intelligence in education: English language teachers' identity negotiation in higher education. *Journal of Asian Development Studies*, 13(3), 861-869. <https://doi.org/10.62345/jads.2024.13.3.70>
- Zembylas, M. (2023). A decolonial approach to AI in higher education teaching and learning: Strategies for undoing the ethics of digital neocolonialism. *Learning, Media and Technology*, 48(1), 25-37. <https://doi.org/10.1080/17439884.2021.2010094>

APPENDIX A: SCREENING SURVEY

Section 1. Background Information

1. Age
 - Under 20
 - 20-25
 - 26-30
 - Above 30
2. Current level of study
 - Undergraduate
 - Graduate
 - Other (please specify): _____
3. Gender
 - Male
 - Female
4. University location
 - UAE
 - Other (please specify): _____
5. Languages you speak fluently (please list): _____
6. Have you ever used an AI generative tool (e.g., ChatGPT, Grammarly, and Quillbot) in your academic writing?
 - Yes
 - No (If no, you do not need to continue this survey)

Section 2. Language and AI Use

7. Which AI tools have you used for academic writing? (select all that apply)
 - ChatGPT
 - Grammarly
 - Quillbot
 - Other (please specify): _____
8. How often do you use AI tools in your academic writing?
 - Rarely
 - Sometimes
 - Frequently
 - Always
9. Have you ever felt that the AI-generated output did not reflect your cultural or linguistic identity?
 - Yes
 - No
 - Not sure
10. Have you ever adjusted or rejected AI-generated text because it did not align with your personal or cultural writing voice?
 - Yes
 - No
11. Would you say you have become more aware of your language or identity while using AI tools?
 - Yes
 - No
 - Not sure
12. Would you be willing to participate in a follow-up interview (45-60 minutes) to share your experiences?
 - Yes
 - No
 - Maybe
13. If yes or maybe, please leave your contact information (email or phone number): _____.

APPENDIX B: INTERVIEW QUESTIONS

Initial Question

Could you please tell me a bit about yourself, such as your age, gender, educational level, current major (if you are a student), and your nationality? If you are working, feel free to share your current job or field of work as well.

1. **Can you tell me about your experience learning and using English as a second language?** *Follow-ups:*
 - How would you describe your current level of comfort with writing in English?
 - Do you use English more in academic, professional, or social settings?
2. **How would you describe your own way of using English—Do you see it as connected to your identity or cultural background?** *Follow-ups:*
 - Do you feel Arabic influences your English?
 - How do you feel about using “non-standard” or “global” forms of English?
3. **Have you used AI tools (like Grammarly, ChatGPT, etc.) for writing or checking your English?** *Follow-ups:*
 - Which tools do you usually use, and for what purpose?
 - How often do you rely on them for academic writing?
4. **Can you describe a specific time when you received AI-generated feedback on your English writing?** *Follow-ups:*
 - What kind of suggestions or corrections did the tool give?
 - How did you feel about the feedback?
5. **Have you ever felt that the AI feedback did not fit your way of expressing ideas in English?** *Follow-ups:*
 - Did the feedback make you feel that your English was “wrong” or “less correct”?
 - Did the tool ever correct something that you felt was part of your personal or cultural way of using English?
6. **How did you respond when the feedback seemed to push you toward a more “standard” English that didn’t reflect your voice?** *Follow-ups:*
 - Did you accept the changes, or did you resist them? Why?
 - How did these suggestions affect your confidence in writing?
7. **Have you developed your own strategies for dealing with AI feedback that doesn’t match your preferred way of writing?** *Follow-ups:*
 - Do you feel more confident now in choosing what to accept or reject?
 - Has anyone (a teacher, friend, or classmate) helped you reflect on the feedback?
8. **How do you think AI tools should deal with different varieties of English, including the one you use?** *Follow-ups:*
 - What would a fair and inclusive feedback system look like to you?
 - What advice would you give to developers designing AI for learners like you?
9. **Looking back, how has your experience with AI feedback shaped your relationship with the English language?** *Follow-ups:*
 - Has it changed the way you think about your own English or your identity as a bilingual speaker?
 - What emotions do you associate with using AI tools for writing now?
10. **Is there anything else you would like to share about your experience as an Arab bilingual learner using AI in education?**

