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From augmentation to transformation: Foreign language teachers' perceptions of GenAI's role in redefining teaching, learning, and assessment

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Abstract

Generative Artificial Intelligence (GenAI) continues to reshape educational practices, particularly within foreign language (FL) teaching and learning. Although research on GenAI in education has expanded globally, studies within the Caribbean remain limited despite the region's distinctive multilingual, sociocultural, and infrastructural realities. This study explored FL educators' perceptions of GenAI in relation to pedagogical affordances, perceived challenges, personalized learning, and the transformation of curriculum and assessment practices. Using qualitative content analysis, data were collected through an open-ended questionnaire completed by 30 FL educators across 13 Caribbean countries. Responses were inductively coded and thematically analyzed in relation to four research questions, while Diffusion of Innovations and the UNESCO AI Competency Framework for Teachers informed interpretation as sensitizing concepts. Findings indicate that FL educators generally perceive GenAI as an augmentative pedagogical tool capable of enhancing lesson planning, feedback provision, differentiated instruction, multilingual support, and instructional efficiency. However, participants also expressed concerns regarding academic integrity, overreliance, cognitive erosion, algorithmic bias, and ethical responsibility. While GenAI-enabled personalization was viewed

as promising, educators questioned its ability to support deeper disciplinary engagement, authentic communicative competence, and sociocultural understanding without sustained human pedagogical mediation. Participants further anticipated that GenAI would significantly reshape curriculum and assessment practices, advocating for more flexible, process-oriented, and authentic assessment approaches that emphasize critical thinking, learner accountability, transparency, and communicative competence. The study proposes the Caribbean Contextualized AI Mediation (Carib-AIM) Framework, which conceptualizes GenAI integration as a dynamic interaction among technological affordances, human pedagogical mediation, ethical tensions, sociolinguistic contextualization, and transformative pedagogical adaptation. Overall, the findings contribute empirical and conceptual insight into how Caribbean FL educators are negotiating AI integration while seeking to preserve human agency, cultural relevance, and authentic language learning in increasingly AI-rich educational environments.

Keywords: GenAI, Caribbean, academic integrity, pedagogical judgement, curriculum reform

Introduction

The adoption and integration of artificial intelligence (AI) into education represent one of the most transformative shifts in contemporary pedagogy (Grassini, 2024). Among these developments, Generative Artificial Intelligence (GenAI), represented by tools such as ChatGPT, Claude, Copilot, DeepSeek, Gemini, and Grok, has emerged as both a catalyst for innovation and a disruptor of traditional educational practices (Madden et al., 2025; Sandhu et al., 2024). In foreign language (FL) education, where communication, creativity, and contextual understanding are central, GenAI's capacity to generate human-like language, respond adaptively to learner input, and simulate authentic interaction presents new opportunities for personalization, learner engagement, and instructional support (Vo & Nguyen, 2024). At the same time, its rapid evolution compels educators to reconsider foundational assumptions surrounding teaching, learning, authorship, and assessment in language classrooms (Pegrum, 2025).

Historically, language education has evolved alongside technological innovation, progressing from language laboratories to computer-assisted and mobile-assisted language learning (CALL/MALL) environments that expanded learner autonomy and access (Pérez-Paredes & Zhang, 2022). GenAI represents a further shift from programmed instruction toward dynamic co-construction of language content and interaction (Zhang & Dong, 2024). Recent studies highlight its potential to augment teachers' capabilities, streamline lesson planning, and provide personalized feedback responsive to learners' needs (Chan & Hu, 2023; Huang et al., 2025). However, emerging scholarship also warns of ethical concerns, overreliance, algorithmic bias, and the possible erosion of human agency when GenAI is adopted without critical oversight (Qian, 2025; Spatscheck et al., 2024).

This dual potential positions GenAI as both a pedagogical partner and a challenge to established practices in FL education. As intelligent and AI-assisted language learning environments become more prevalent, important questions emerge regarding how curricula, instructional approaches, and assessment practices should adapt (Liu et al., 2024; Saputra et al., 2024). This study responds to these concerns by examining GenAI not merely as a tool for task augmentation, but as an evolving pedagogical ecosystem capable of reshaping the principles underpinning FL teaching and learning. More specifically, it foregrounds perspectives from the Caribbean,

a region that remains significantly underrepresented in the literature despite its distinctive multilingual, sociocultural, and educational realities. The study therefore provides an important empirical baseline of FL educators' perceptions of GenAI across 13 Caribbean territories, focusing on pedagogical affordances, ethical concerns, personalization, and the transformation of curriculum and assessment practices. To achieve this, the study adopted the following research questions:

1. What tasks could be augmented by GenAI?
2. What are foreign language teachers' biggest concerns regarding the potential misuse or ethical challenges associated with GenAI in foreign language education?
3. How can GenAI tools enhance personalized learning for students with diverse learning styles and needs?
4. How might GenAI reshape curriculum and assessment methods in foreign language education?

Theoretical Framework

This study's exploration of GenAI integration into FL education requires a theoretical lens that is focused on both technology integration and teacher competency. To this end, this study utilizes two complementary theoretical lenses: Rogers' (2003) Diffusion of Innovations (DoI) theory and UNESCO's (2024) ICT Competency Framework for Teachers (ICT-CFT). Together, these frameworks provide a foundation for understanding both the adoption process of GenAI technologies and the pedagogical skills and competencies required by teachers for effective implementation in the Caribbean language classroom.

Diffusion of Innovations Theory

The DoI theory, put forward by Rogers (2003), serves as a valuable framework for examining how new technologies, ideas, and practices are adopted within social groups. This theory highlights the view that adoption is based on the rate and extent to which the innovation is spread throughout the social group (Monga et al., 2024). In the context of GenAI and language learning, the theory helps with developing an understanding of how teachers adopt various GenAI tools into their teaching, learning, and assessment practices. The DoI theory has been widely used in research, especially in those related to technology adoption and integration (Sahin, 2006). It suggests that several elements influence the diffusion of an innovation, including the innovation itself, communication channels, time, and the social system. These elements provide a systematic approach to analyzing the most influential factors on teachers' willingness to integrate GenAI into their pedagogical practices and processes within modern and foreign languages (MFL) education. The DoI theory also explains how individuals adopt new technologies and innovations over time through five adopter categories. Innovators are the first to experiment with emerging technologies and are typically willing to take risks. Early adopters, often regarded as opinion leaders, readily embrace innovation and influence others through positive experiences and recommendations. The early majority adopt innovations more cautiously, relying on reviews, demonstrations, and evidence from earlier users before acceptance. In contrast, the late majority tend to be sceptical and only adopt innovations when social pressure, widespread acceptance, or fear of exclusion becomes significant. Finally, laggards are the most resistant to change and generally prefer traditional approaches, adopting innovations only when they become unavoidable or strongly supported by evidence and societal expectations. The theory highlights that technology adoption is influenced by social interaction, perceived usefulness, trust, and exposure to evidence-based experiences.

This study uses the principles of the DoI theory to explore how FL educators are adopting GenAI. It examines the specific patterns and stages they go through in this process. Additionally, it analyzes the various social, cultural, and institutional factors that either help or hinder the effective integration of this technology in the educational setting.

UNESCO AI Competency Framework for Teachers

The UNESCO AI Competency Framework for Teachers (UNESCO, 2024) outlines the essential knowledge, skills, and attitudes that educators need to effectively, ethically, and safely engage with AI in educational contexts. As seen in Table 1, the framework focuses on three domains, including AI and digital fundamentals, implementation of AI and digital education, and professional development. In addition, it serves as a guide for determining teachers’ readiness to utilize and integrate AI and its derivative tools in their teaching, learning, and assessment activities. This study uses the UNESCO AI Competency Framework for Teachers as both a diagnostic and an evaluative tool to align language educators’ current and intended use of GenAI tools against internationally accepted frameworks.

Table 1. AI competency framework for teachers (UNESCO, 2024, p. 22)

Aspects	Progression		
	Acquire	Deepen	Create
1. Human-centred mindset	Human agency	Human accountability	Social responsibility
2. Ethics of AI	Ethical principles	Safe and responsible use	Co-creating ethical rules
3. AI foundations and applications	Basic AI techniques and applications	Application skills	Creating with AI
4. AI pedagogy	AI-assisted teaching	AI-pedagogy integration	AI-enhanced pedagogical transformation
5. AI for professional development	AI enabling lifelong professional learning	AI to enhance organizational learning	AI to support professional transformation

The integration of these two frameworks provides a useful lens through which we can examine teachers’ engagement with GenAI in language education. Rogers’s (2003) DoI theory elucidates the processes and dynamics of adopting GenAI, while UNESCO’s AI Competency Framework highlights the knowledge, skills, and dispositions that are considered essential for teachers to effectively and ethically implement GenAI. When combined, these theories offer a comprehensive understanding of teachers’ progression from initial awareness to advanced mastery in integrating GenAI in language instruction.

Literature Review

Several GenAI tools are being used in educational contexts worldwide. Tillmanns et al. (2025) highlighted that ChatGPT has been recognized as one of the leading GenAI platforms used by both teachers and students for generating instant text. Some of the other popular platforms include Gemini from Google, Claude from Anthropic, and Copilot from Microsoft. Kohnke et al. (2023)

found that ChatGPT is especially useful in language education and noted that it appropriately generates a response, provides an explanation of a grammar point, and keeps the conversation going, mimicking real communication. Ongoing research illustrates that teachers and students are using GenAI to increase productivity, create activities, and enhance learner engagement. According to a survey conducted by Moorhouse et al. (2023), language teachers' main application of ChatGPT is for the development of materials and lessons. In contrast, learners widely use the technology for vocabulary study, grammar explanation, and writing support. Research shows that learner motivation tends to become amplified when AI tools are used if spaced appropriately, as students enjoy personalized practice and immediate feedback (Kohnke et al., 2023). However, there are concerns that the overuse of AI will take away their freedom of choice and their way of thinking, but Kohnke et al. (2023) debunk such a notion and reiterate their ideology that GenAI can only amplify critical thinking and independent writing if used correctly. Additionally, the literature details several tasks that can be augmented by GenAI, as developed below.

Lesson Planning and Instructional Design

GenAI tools have been beneficial for lesson planning and curriculum development for many educators and administrators. Teachers can utilize these sources to produce the lesson structure, learning objectives, and activity sequence for proficiency standards. According to Moorhouse et al. (2023), language teachers found that by using ChatGPT for their lesson planning, they saved time, but importantly, their quality of instruction did not suffer. Kasneci et al. (2023) further noted that the technology allows teachers to brainstorm thematic units and generate scaffolded class activities for students. Sullivan et al. (2023) explored how teachers use AI to differentiate instruction, as AI can quickly produce materials appropriate for different levels, which usually takes a long time for teachers to do manually. However, AI-generated lesson plans are not without issues. As Perkins (2023) noted, teachers' overreliance on GenAI for instructional design could diminish their professional judgement and pedagogical expertise. As such, there may be a form of deskilling where teachers are unable to find meaningful ways to develop the curriculum. Additionally, AI-generated materials lack cultural responsiveness (Baidoo-Anu & Ansah, 2023). Details of local context or specific learners need to be modified extensively by the teacher.

Generating Language Input, Examples, and Prompts

One of the most powerful uses for GenAI is that it can create the authentic language input needed to fulfil specific educational purposes. Teachers can ask for dialogues that relate to their students' cultures, reading passages at the different levels, and vocabulary activities shaped around suitable contexts (Grassini, 2023). According to Yan (2023), GenAI can generate example sentences to illustrate grammatical patterns, create cloze activities, and develop writing prompts to elicit production from learners. This feature solves a long-standing dilemma in language teaching, namely the problem of abundant, varied and suitable input (Yan 2023). This ability can effectively solve the problem of limited, monotonous, and unpredictable input materials in language education. Barrot (2023) considers this a special advantage in language teaching, as such materials can already incorporate timely events and culture-specific contexts and keep up learners' interest while being linguistically correct. Similarly, GenAI helps FL teachers with material creation and translation. They can quickly create supplementary materials such as vocabulary lists, cultural notes and comprehension questions (Pavlik, 2023). Even though Gen-AI tools can help with translation work, critics warn that they should be used cautiously (Jiao et al., 2023). Nevertheless, teachers can use GenAI to customize authentic materials that align with world cultures (Rahman & Watanobe, 2023).

Assessment Feedback and Rubric Creation

The assessment process can benefit from the GenAI platforms. By creating rubrics based on proficiency scales like the American Council on the Teaching of Foreign Languages (ACTFL) or the Common European Framework of Reference for Languages (CEFR), language teachers can use these descriptors to create rubrics and sample responses at various performance levels or provide feedback on students' writing. According to Escalante et al. (2023), AI-generated feedback can complement teacher assessment, especially in large classes where individual feedback issues arise. However, they caution that AI-generated feedback should be subjective and not objective, thereby ensuring room for human judgment in evaluation. Mizumoto and Eguchi (2023) mentioned that students benefiting from AI feedback wrote better than if they did not receive any feedback. However, instead of replacing humans, AI feedback should complement human evaluation as regards nuanced aspects of language production, including pragmatic appropriateness or cultural authenticity.

Language Modelling and Conversational Practice

GenAI is an important tool with conversational partner opportunities that can be useful for language learning. ChatGPT can hold long conversations and has 'common sense', unlike the usual chatbots, which can only reply in pre-programmed patterns. Huang et al. (2022) show how AI chatbots reduce learners' anxiety by providing limitless opportunities for practice without the fear of being judged. Students do not get enough speaking time in the classroom, and with this application, they can have multiple conversations outside of class time (Ait Baha et al., 2024). In addition, AI conversation tools are able to provide corrective feedback on the spot and to scaffold learner interactions according to their proficiency level (Bin-Hady et al., 2023). ChatGPT also provides conversational opportunities for learners of less commonly-taught and regional languages, including the Jamaican Creole (O'Toole et al., 2025).

Ethical and Pedagogical Concerns in GenAI Integration

The integration of GenAI into education raises important ethical and pedagogical concerns that demand thoughtful consideration and policy development. As educators embrace these emerging technological tools, it becomes essential to balance innovation with responsibility to ensure that GenAI enhances learning without compromising academic integrity, equity, or reducing critical thinking. Studies found that while AI poses immense promises to education, its use also raises significant academic concerns regarding, among other things, data privacy, algorithmic bias, plagiarism, academic integrity, misinformation, and data accuracy (Adalı & Bilgili, 2025; García-López & Trujillo-Liñán, 2025). These concerns have significant implications for teaching, learning, and assessment in all spheres of education and training. Furthermore, with possible impact on knowledge generation, these concerns can spiral into other areas of life and work that rely on the knowledge economy.

Should learners use AI-generated content without evaluating its accuracy, unsubstantiated conclusions may be drawn, therefore producing inaccuracies and biased opinions, even while sounding assured and professional. This is known as hallucinations. According to Huang et al. (2024), hallucinations are most frequently associated with unusual word combinations or unfamiliar expressions, which ironically are the very things that language learners typically test when they are learning a new language. Ho (2024) demonstrates that students, particularly those who are still learning how to critically assess language, occasionally accept these mistakes without question. The risk is not only that the information is incorrect but also that it is presented so smoothly that students do not feel the need to verify it. Moreover, because GenAI tools produce historical or culturally biased outputs, students who depend on them may

unintentionally extend inequitable practices or make decisions that overlook diverse perspectives. This can be described as cultural-pragmatic flattening, whereby large language models (LLMs) often echo dominant cultural norms. Bender et al. (2021) label these systems as stochastic parrots that reproduce prevalent forms from their training. AI translation risks stripping cultural nuances. While LLMs may work, the information may not resonate. Furthermore, as students prepare for the world of work, overreliance on AI may stifle their innate creativity, problem-solving, and decision-making skills.

In addition to the ethical considerations around the use of GenAI, several of those concerns have been registered in relation to academic integrity. Proper and ethical use of GenAI can have positive impacts on students' attainment; however, improper use can derail sound pedagogical practice and instructors' ability to provide learners with the support they need to excel (Oluwafemi Ayotunde et al., 2023). Moreover, studies have shown that overreliance on AI tools can weaken students' innovative and metacognitive skills, while thwarting efforts made to foster collaboration (Adah & Bilgili, 2025). Yan and Zhang (2024) found that learners often revise their work using ChatGPT's advice, but the depth of their consideration differs greatly as some students actively engage with feedback to improve their writing, while others passively accept it, thus hindering their development.

Given the ethical concerns, educators will then be required to rethink and redesign their instructional models to incorporate GenAI into teaching, learning, and assessment processes (Adah & Bilgili, 2025; Sandu et al., 2024). As AI and its derivative tools continue to gain popularity in education, educators and other stakeholders have raised questions about its implications for teaching and learning. This, then, means that it is important to carefully examine policy-level perspectives from the Caribbean and explore frameworks that encourage AI literacy and the responsible use of AI in education (Madden et al., 2025). Scholars have expressed concerns about the slow progress of developing a regional AI policy in the Caribbean, especially when compared to efforts in countries in Asia, Europe, and North America (Mohammed & Ahmad, 2025; Salajan et al., 2024). Bridging this gap will require a collaborative effort among Caribbean Community (Caricom) member States to create a comprehensive AI policy that considers the Caribbean's distinct educational, cultural, and socioeconomic realities. This policy should focus on establishing a regional framework that empowers educators and students with the skills to critically engage with AI technologies, while also addressing concerns about including AI in education. Worldwide, many countries and universities are creating and reviewing their AI policies, offering various models that the Caribbean can explore and adapt to shape its own future policies.

Methods

The study adopted a qualitative research design to explore FL teachers' perspectives concerning the extent to which GenAI may redefine teaching, learning, and assessment practices. A qualitative approach was deemed appropriate as it allows for an in-depth examination of participants' meanings, interpretations, and reflections, which cannot be sufficiently captured through purely quantitative measures (Lim, 2024). Qualitative research emphasizes context, existence, experience, perspective, meaning, and subjectivity, capturing participants' voices, beliefs, and attitudes toward different social phenomena (Oranga & Matere, 2023). Even though subjectivity is a characteristic of qualitative research, the approach ensures that the resultant findings are rich, contextually grounded, and connected to empirical evidence (Finlay, 2024).

More specifically, the study employed a structured open-ended survey, which was particularly appropriate for this Caribbean-based research context. Given the geographical dispersion of participants across different institutions, territories, and time zones, the instrument

facilitated efficient data collection while allowing instructors the flexibility to provide reflective and detailed responses at their convenience. The open-ended format was essential because it enabled participants to articulate nuanced experiences, contextual realities, and sociocultural concerns surrounding GenAI integration in foreign language education. This was especially important in the Caribbean context, where multilingualism, varying levels of technological infrastructure, and diverse educational realities influence educators' perceptions and adoption of emerging technologies. Additionally, the structured format ensured consistency across responses while still preserving participants' authentic voices, thereby generating comparable yet context-sensitive data suitable for thematic analysis.

Participants/Sampling

The study sought to capture diverse perspectives from FL teachers across the Caribbean region and Diaspora regarding the integration of GenAI in language education. A non-probability purposive sampling strategy, complemented by elements of snowball sampling, was employed to recruit participants with relevant professional experience and insight into foreign language teaching and emerging educational technologies. The survey was distributed through professional and academic networks, including educator communities and WhatsApp groups, without imposing a pre-determined participant quota. This approach was considered appropriate for exploratory regional research because it facilitated access to geographically dispersed educators across multiple Caribbean territories.

Nevertheless, the authors acknowledge that recruitment through professional networks may have introduced certain sampling biases. Participants who are more professionally connected, technologically engaged, or positively predisposed toward GenAI may have been more likely to participate than educators with limited technological access or less favorable perceptions of AI integration. As such, the findings should be interpreted within the context of these potential limitations.

Rather than relying solely on the concept of thematic saturation (Charmaz, 2015), which is more commonly associated with interview-based qualitative studies, the adequacy of the sample size was justified using the principle of information power (Roberts et al., 2026). According to this principle, studies with narrowly defined aims, context-specific participant groups, and focused analytic approaches may require smaller yet information-rich samples to generate meaningful insights. In this study, the 30 participants provided sufficient informational depth (Wutich et al., 2024) and contextual diversity to explore FL educators' perceptions of GenAI across varied institutional, linguistic, and sociocultural Caribbean contexts – capturing the richness of social phenomena through human experiences (Lim, 2024).

Although the research team's professional networks were strongly connected to Jamaica, resulting in a larger proportion of participants from that territory ($n = 13$), the study also included 17 participants from 12 additional Caribbean islands, thereby enhancing the regional breadth of the dataset (see Table 2). Of the participants, 17 identified as female and 13 as male. Most educators ($n = 14$) were between the ages of 29 and 36 years, and slightly more than half ($n = 16$) taught at the tertiary level. Spanish was the most taught language ($n = 19$). Collectively, these demographic characteristics contributed to a diverse and contextually grounded sample capable of providing meaningful insights into GenAI adoption and perceptions within Caribbean FL education.

Instrument and Data Collection

A structured qualitative survey was designed in *Google Forms* to investigate FL teachers' perspectives on how GenAI could redefine and repurpose teaching, learning, and assessment

Table 2. *Summary of participants’ demographic details*

Category	Subcategory	n	%
Gender	Male	13	43.3
	Female	17	56.7
Country	Jamaica	13	43.3
	Haiti	3	10
	Cuba	3	10
	Dominican Republic	2	6.7
	Aruba	1	3.3
	Bahamas	1	3.3
	Belize	1	3.3
	Curacao	1	3.3
	Guyana	1	3.3
	French Guiana	1	3.3
	Puerto Rico	1	3.3
	Suriname	1	3.3
	Trinidad and Tobago	1	3.3
Age	21–24	1	3.3
	25–28	4	13.3
	29–32	7	23.3
	33–36	7	23.3
	37–40	6	20
	41–44	4	13.3
	53+	1	3.3
Level Taught	Primary	2	6.7
	Secondary	12	40
	Tertiary	16	53.3
Languages Taught	Spanish	19	63.3
	French	11	36.7
	English L1	10	33.3
	English L2	12	40
	Other	3	10

Continue

Table 2. Continued

Category	Subcategory	n	%
Years of Teaching Experience	1–5	6	20
	6–10	9	30
	11–15	7	23.3
	16–20	5	16.7
	21–25	3	10

practices. The first section of the instrument collected participants’ demographic variables (age range, gender, location, language(s) and instructional level taught, and years of teaching experience to establish their profile. The second part consisted of six open-ended questions surrounding four themes: (1) task augmentation, (2) ethical challenges, (3) personalized learning, and (4) curriculum and assessment. The questions were as follows:

- Which specific tasks in your current teaching workload could be most efficiently automated or augmented by GenAI?
- What are your biggest concerns regarding the potential misuse or ethical challenges associated with GenAI in foreign language education?
- How could GenAI tools be used to personalize learning experiences for students with diverse learning styles and needs? Provide concrete examples.
- How might GenAI reshape the curriculum and assessment methods in foreign language education?

Before the questionnaire was administered, a multi-stage validation process was undertaken. The lead author formulated the questions then shared them with J. Paivo, who gave their feedback. Subsequently, the instrument was reviewed by an expert panel of three FL lecturers and educational technology specialists, who assessed the clarity and relevance of the questions, as well as their alignment with the research objectives, using a structured checklist. The review yielded meaningful refinements to question formation and content coverage. Thereafter, a pilot phase with four in-service FL educators was done to evaluate readability, instruction clarity, and technical functionality. Their feedback resulted in minor final adjustments.

To ensure confidentiality and anonymity, no identifiable information such as name, email address, and institution was requested of the participants. The instrument outlined that participation was voluntary and participants could withdraw from the study at any time without facing any consequences. Additionally, at the end of the questionnaire, participants consented whether they wanted their responses to be used for research purposes. All data were collected and stored in accordance with the institution’s and country’s Data Protection Policy.

The questionnaire link was circulated to prospective participants through the researchers’ professional networks (WhatsApp groups and email), and the snowball technique was used to recruit additional participants. Crouse and Lowe (2018) state that researchers use the snowball sampling to generate a pool of participants through referrals made by individuals who share a common characteristic of research interest with the target population.

Data Analysis

Qualitative content analysis (QCA) was used to analyze participants' responses, following a systematic and iterative approach designed to identify patterns of meaning within the dataset. Assarroudi et al. (2018) noted that QCA is a research approach employed to describe and interpret textual data using the systematic process of coding. QCA was adopted because it allows for both the categorization of manifest content and the interpretation of latent meanings within participants' responses, while remaining grounded in the data.

An initial assessment of participants' responses was conducted to evaluate the breadth and richness of the qualitative data. The authors acknowledge that complete homogeneity across responses was not achieved, as some participants provided highly detailed reflections while others offered more concise and direct answers. For instance, within one survey item, the highest response length was 211 words, the median response length was 24 words, and the shortest response contained only three words. Despite this variation, the responses collectively provided meaningful and contextually relevant insights that enabled the identification of recurring themes and patterns across the dataset. Such variability in response length is not uncommon in structured open-ended qualitative surveys, particularly among busy professionals, and does not necessarily diminish the analytical value or interpretive depth of the findings.

The analysis was conducted in several iterative stages and supported by MAXQDA software. In the first stage, all responses were read repeatedly by the research team to ensure immersion in the data and to develop a holistic understanding of participants' accounts. Following this familiarisation phase, O. Madden and J. Paivo independently conducted initial open coding. Meaningful segments of text were identified and assigned descriptive codes that remained closely grounded in participants' language. Coding was primarily inductive, allowing categories to emerge from the data while remaining broadly informed by the research questions and relevant literature.

To enhance rigor, a structured intercoder comparison process was then undertaken. The independently generated codebooks were systematically compared to assess convergence and divergence in coding decisions. Although formal intercoder reliability statistics were not calculated, consistency was strengthened through iterative discussion and consensus-building. Where discrepancies occurred, they were resolved through negotiated agreement, resulting in a single refined coding framework that reflected shared interpretive decisions. This negotiated codebook was then applied to the full dataset.

In the subsequent phase, codes were clustered into broader categories through constant comparative analysis, examining similarities and differences across participants' responses to ensure internal coherence and conceptual distinctiveness. These categories were further consolidated into higher-order themes that captured dominant patterns in participants' perceptions and experiences. Throughout this process, analytic rigour was maintained through continuous team dialogue, refinement of definitions, and iterative checking against the dataset to ensure fidelity to participants' meanings.

However, the process was not theoretically neutral. DoT theory and the UNESCO AI Competency Framework for Teachers were USED as sensitizing concepts throughout the analysis. This means they provided an interpretive lens that informed how the researchers attended to and interpreted patterns in the data, particularly in relation to issues such as perceived usefulness, ease of adoption, perceived risks, stages of uptake, and dimensions of AI-related teacher competencies.

To enhance analytic rigor, frequencies of codes were calculated to provide a descriptive indication of the relative distribution of ideas across the dataset. Specifically, frequency counts were used as a supplementary analytic aid to (i) identify patterns of recurrence across participants' responses, (ii) assist in distinguishing more commonly reported perceptions from less

frequently mentioned but still analytically meaningful insights, and (iii) support comparison of thematic emphasis across the different research questions. Importantly, frequency was not interpreted as a proxy for significance, depth, or importance. Given that the dataset consisted of open-ended survey responses, the authors acknowledge that variation in response length and level of detail may influence frequency counts; more verbose participants may contribute a higher number of coded segments without necessarily indicating greater conceptual weight. For this reason, frequency data were used only in conjunction with interpretive thematic analysis, rather than as a standalone measure of salience. Accordingly, themes were developed primarily through patterns of meaning and conceptual coherence, while frequency counts served to enhance transparency in reporting and to provide a structured overview of how widely certain ideas were represented across the dataset.

Throughout the analysis, reflexive memo-writing was employed as an ongoing strategy to document analytic decisions, emerging interpretations, and potential sources of researcher bias. These memos served as an audit trail of the coding process, capturing how codes were developed, revised, merged, and sometimes discarded, thereby enhancing transparency in the progression from raw data to final themes. As noted by Mohajan and Mohajan (2022), memo-writing functions as an analytical tool that supports the development of clearer conceptual insights and strengthens the interpretive validity of qualitative findings.

In addition to memo-writing, credibility was supported through systematic engagement with the data, including repeated readings, iterative coding, and constant comparison across responses to ensure that themes were firmly grounded in participants' accounts. Dependability was strengthened by maintaining a structured and traceable coding process within MAXQDA, alongside the use of a negotiated coding framework developed through collaborative refinement between the two coders. This allowed for consistency in coding decisions and reduced the likelihood of arbitrary interpretation.

To further enhance transparency, representative excerpts were selected to illustrate each theme, enabling readers to directly evaluate the link between raw data and analytic claims. The inclusion of verbatim quotations ensured that participants' voices remained central to the interpretation of findings, rather than being overshadowed by researcher inference.

Taken together, these strategies—reflexive memoing, iterative coding, coder consensus procedures, and the use of illustrative excerpts—collectively strengthened the trustworthiness of the analysis by ensuring credibility, dependability, and transparency were systematically embedded rather than merely asserted.

Findings

RQ1: What Tasks can be Augmented by GenAI?

Participants' responses reveal a broad consensus that GenAI has the potential to augment a wide range of pedagogical, instructional, and administrative tasks in foreign language education. QCA generated six dominant themes, indicating that participants primarily conceptualized GenAI as a supportive and efficiency-enhancing tool, rather than a replacement for teacher expertise. As summarized in Table 3, the most frequently identified area of augmentation is lesson planning and instructional design ($n = 17$). Participants highlighted GenAI's capacity to generate lesson plans, activities, scopes and sequences, and action plans aligned with learning objectives and student needs. As mentioned by Participant 11, *"AI can generate customized lesson plans based on objectives and student needs."*

Closely related is language support, encompassing grammar correction, writing feedback, pronunciation practice, and vocabulary development ($n = 15$). Participants emphasized GenAI's ability to provide immediate, individualized feedback, particularly for linguistic form,

Table 3. *FL teachers’ perceptions of tasks that can be augmented by GenAI*

Theme	Codes	Frequency (out of 30)	Representative quote
1. Lesson planning and instructional design	Lesson planning; Activity generation; Scopes and sequences; Action plans	17, 56.6%	“AI can generate customized lesson plans based on objectives and student needs.” P11
2. Language support (grammar, writing, pronunciation)	Grammar correction; Writing feedback; Pronunciation practice; Vocabulary	15, 50%	“Providing instant feedback on grammar and pronunciation.” P17
3. Assessment grading and feedback	Grading; Automated marking; Assessment creation; Report comments	14, 46.6%	“Grade and attendance records management.” P13
4. Multilingualism and translation support	Translation; Multilingual instruction; Linguistic accessibility	9, 30%	“Adaptive translations between Haitian Creole, French, English, and Spanish.” P21
5. Personalization and differentiated learning	Tailored exercises; Individualized materials; Level-specific support	8, 26.6%	“Generating exercises tailored to students’ levels.” P24
6. Administrative and resource creation tasks	Worksheets; PowerPoint creation; Documentation; Record keeping	7, 23.3%	“PowerPoint, worksheets.” P23
7. Recognition of GenAI limitations and human role	Human judgment; Critical thinking; AI limits	6, 20%	“They can provide good initial insights but do not replace human expertise.” P2

thereby extending learning opportunities beyond classroom time. An illustrative example was given by Participant 17: “*Providing instant feedback on grammar and pronunciation.*” Assessment grading and feedback also emerged as a significant area ($n = 14$). Respondents identified automated marking, feedback generation, and report writing as tasks that could be partially delegated to GenAI, particularly for formative assessment, though often with the caveat of human oversight. Participant 12 cited “*grade and attendance records management*” as examples.

Additional themes included multilingualism and translation support ($n = 9$), where GenAI is viewed as facilitating linguistic accessibility across multiple languages, as mentioned by Participant 21: “*Grammar and pronunciation corrections in French, English, and Spanish; AI-generated vocabulary quizzes tailored to Haitian students’ needs; Adaptive translations between Haitian Creole, French, English, and Spanish; Lesson planning support to help*

teachers focus on interactive activities." Personalization and differentiated learning ($n = 8$) are also possible by *"generating exercises, reviewing assignments, creating personalized materials, and translating texts tailored to students' levels"* (Participant 24), as well as administrative and resource creation tasks ($n = 7$), such as producing *"PowerPoint [presentations] and worksheets"* (Participant 23).

Despite the possible tasks that could be augmented, participants recognize GenAI's limitations and highlight the enduring centrality of human judgement ($n = 6$). Participants positioned GenAI as an assistive tool that supports, but does not replace, pedagogical expertise, critical decision-making, and contextual sensitivity, mentioned by Participant 2, the tools *"can provide good initial insights but do not replace the detailed and contextualized reasoning that a human expert can offer"*.

RQ2: What are Foreign Language Teachers' Biggest Concerns Regarding the Potential Misuse or Ethical Challenges Associated with GenAI in Foreign Language Education?

Findings reveal a strong awareness of the ethical, pedagogical, and academic risks associated with the integration of GenAI in education. While respondents acknowledged the affordances of GenAI (as reported above in RQ1), their reflections on challenges were notably cautious, highlighting tensions between innovation, academic integrity, and pedagogical responsibility.

As seen in Table 4, the most prominent concern relates to academic integrity and misuse ($n = 18$). Participants frequently expressed apprehension about students using GenAI to complete assignments dishonestly, particularly in writing-intensive tasks. Concerns centered on plagiarism, overreliance on AI-generated content, and the erosion of authentic learning and assessment validity. As mentioned by Participant 16, *"Students [are] passing off AI-generated work as their own."* A closely related theme was overdependence and reduced critical thinking ($n = 16$). Respondents warn that excessive reliance on GenAI could undermine students' ability to think independently, develop problem-solving skills, and engage deeply with content, as *"Students may become lazy and rely on AI for everything. This was already an issue before AI and it does not reflect their true work"* (Participant 14). This concern was especially pronounced in relation to higher-order academic skills such as analysis, synthesis, and original argumentation.

Participants also raised concerns regarding accuracy, bias, and reliability of AI outputs ($n = 12$). Respondents note that GenAI-generated responses may contain factual errors, culturally inappropriate content, or biased perspectives, necessitating careful human oversight. This was seen as particularly problematic in language and education contexts where nuance, context, and cultural sensitivity are essential. With the rise of GenAI, Participant 4 is concerned that *"students won't see the importance of learning a foreign language. The need or desire for learning a foreign language will further plummet into oblivion."* This is closely to the concern of a gradual loss of human interaction and pedagogical relationships ($n = 9$), thus some advocate that *"language teaching must remain human-centered, cultural immersion, and deep linguistic exploration"* (Participant 20).

Another salient theme was ethical and data privacy issues ($n = 8$). Participants expressed unease about data security, authorship, and the lack of transparency surrounding how GenAI systems generate and store information. These concerns were often framed within broader debates about institutional responsibility and policy development, with Participant 25 noting that *"legal ramifications of AI use are unclear, and we need to be aware of what can or cannot happen legally to guide our use of AI."* Finally, some participants ($n = 7$) highlight cultural prejudice and linguistic inaccuracies with GenAI platforms. Participant 23 signals that *"nuances in Creole and minority languages are often lost."*

Table 4. *FL teachers’ ethical concerns regarding GenAI tools*

Theme	Codes	Frequency (out of 30)	Representative quote
1. Academic integrity and plagiarism	Plagiarism; Cheating; AI-generated submissions; Assessment validity	18, 60%	“Students passing off AI-generated work as their own.” P16
2. Overreliance and reduced independent thinking	Dependency; Laziness; Reduced effort; Loss of critical thinking	16, 53.3%	“Students may become lazy and rely on AI for everything.” P14
3. Erosion of language learning and skill development	Reduced practice; Translation dependence; Decline in communicative competence	12, 40%	“Students won’t see the importance of learning a foreign language.” P4
4. Loss of human interaction and pedagogical relationships	Reduced interaction; Dehumanization; Less collaboration	9, 30%	“Language teaching must remain human-centered.” P20
5. Contextual, legal, and infrastructural constraints	Internet access; Regulation; Legal ambiguity; Teacher resistance	8, 26.6%	“Legal ramifications of AI use are unclear.” P25
6. Bias, cultural insensitivity and linguistic inaccuracy	Cultural bias; Misrepresentation; Inaccurate translations Human judgment; Critical thinking; AI limits	7, 23.3%	“Nuances in Creole and minority languages are often lost.” P23

RQ3: How Could GenAI Tools be Used to Personalize Learning Experiences for Students with Diverse Learning Styles and Needs?

Findings suggest that participants largely conceptualized GenAI as a tool with significant potential to enhance personalization and learner responsiveness, while simultaneously expressing caution about its pedagogical limits. QCA reveals six interrelated themes (see Table 5) that illuminate how personalized learning is understood and negotiated in relation to GenAI.

The most prominent theme concerned adaptive and individualized support ($n = 22$). Participants highlight GenAI’s ability to tailor explanations, examples, and practice activities to students’ proficiency levels, learning pace, and specific needs. This affordance is viewed as particularly valuable in linguistically diverse classrooms, where learners often require differentiated scaffolding that may be difficult to provide consistently through traditional instruction. As such, Participant 7 mentions that GenAI tools can “*create differentiation for multiple learning styles and needs.*”

A second theme focused on the incorporation of GenAI tools to improve and support language learning, pronunciation, and communication practice ($n = 16$), as “*AI-driven speech*

Table 5. *FL teachers’ views on how GenAI tools can be personalized*

Theme	Codes	Frequency (out of 30)	Representative quote
1. Adaptive and differentiated instruction	Adaptive learning; Differentiation; Level-based tasks; Learning styles	22, 73.3%	“Create differentiation for multiple learning styles.” P7
2. Language learning, pronunciation, and communication practice	Pronunciation feedback; Listening practice; Dialogue simulation; Speaking support	16, 53.3%	“AI-driven speech recognition can help students perfect pronunciation.” P20
3. Support for learning difficulties and special educational needs	ADHD support; Alternative explanations; Reduced cognitive load; Safe practice	14, 46.6%	“We have students with ADHD and other learning difficulties.” P25
4. Teacher support and instructional design	Lesson ideas; Activity generation; Rubric creation; Planning support	13, 43.3%	“It gives me ideas and helps me structure.” P1
5. Multilingual and culturally responsive learning	Multilingual instruction; Cultural relevance; Minority languages	11, 36.6%	“Tailor lessons based on proficiency in Dutch, English, and Creole languages.” P18
6. Cautious optimism and human oversight	Teacher mediation; AI limitations; Critical judgment	10, 33.3%	“Real educators are needed to ensure content is culturally relevant.” P5

recognition can help students perfect [their] pronunciation in English or Spanish” (Participant 20). Participants also emphasized inclusive and accessible learning opportunities ($n = 14$) for learners with cognitive challenges and special educational needs; for example, *“we have students with ADHD and other learning difficulties. It can help them out for sure”* (Participant 25). Even for educators, GenAI tools can support them through instructional design ($n = 13$) and assist with rubric creation. As mentioned by Participant 1, *“It gives me ideas and helps me structure. Another time, I asked it to create a rubric. It gave me a rubric with too many criteria.”* Similarly, these tools can enhance multilingual and culturally responsive learning ($n = 11$) by *“tailor[ing] lessons based on proficiency in Dutch, English, and adjusting materials for bilingual learners who also speak Sranan Tongo, Javanese, or Arawak.”* (Participant 18). Notwithstanding, some educators ($n = 10$) express cautious optimism and the need for human oversight as *“real educators are needed to ensure content is culturally relevant, engaging, and aligned with students’ needs”* (Participant 9).

RQ4: How Might GenAI Reshape Curriculum and Assessment Methods in Foreign Language Education?

Responses indicate that GenAI is perceived as a catalyst for significant curricular and assessment transformation in foreign language education, particularly in relation to flexibility,

Table 6. *FL teachers’ views on how GenAI tools will reshape curricula and assessment*

Theme	Codes	Frequency (out of 30)	Representative quote
1. Adaptive and personalized curriculum design	Personalisation; Adaptive learning paths; Level-based content; Learner-centred design	18, 60%	“AI-generated exercises tailored to individual student progress.” P5
2. Transformation of assessment practices	Automated feedback; AI-assisted grading; Adaptive testing; Continuous assessment	17, 56.6%	“Encouraging self-assessment through AI marking and grading.” P29
3. Innovation in content delivery and learning activities	Interactive exercises; Simulations; AI-generated tasks; Engagement	11, 36.6%	“AI may introduce interactive exercises and simulations.” P1
4. Preservation of human-led pedagogy	Human interaction; Oral exams; Teacher oversight; Communicative practice	10, 33.3%	“Oral exams, debates, and interactive exercises must remain human-led.” P20
5. Shift toward higher-order cognitive skills	Critical thinking; Reflection; Reduced rote learning	9, 30%	“More emphasis on critical thinking rather than rote memorization.” P3
6. Contextual and infrastructural constraints	Limited access; Technological inequality; Policy barriers	6, 20%	“Cuba is very backward in terms of technology.” P26

authenticity, and pedagogical reorientation. Table 6 presents six major themes that illustrate how educators anticipate GenAI reshaping established practices.

The most prominent theme concerns a shift toward more flexible and adaptive curricula ($n = 18$). Participants suggest that GenAI could support modular, responsive curriculum design by enabling instructors to tailor content sequencing, learning tasks, and instructional materials to learners’ evolving needs. Participant 5 suggests that “*AI-generated exercises [can be] tailored to individual student progress.*” A second theme surrounds the reconceptualization of assessment practices ($n = 17$). Respondents anticipate a shift from traditional product-oriented assessments toward process-based and formative assessment models. GenAI tools are viewed as facilitating ongoing feedback, iterative drafting, and reflective learning, thereby foregrounding learning development over final outputs and “*encouraging self-assessment through AI marking and grading*” (Participant 29). Additionally, GenAI tools will lead to innovation in lesson delivery and learning activities ($n = 11$), through the introduction of “*AI-generated feedback [which] can help students improve writing and comprehension... [and] interactive exercises and simulations for better engagement*” (Participant 1). Notwithstanding, some teachers ($n = 10$) emphasize the importance of preserving of human-led

pedagogy, maintaining that *“oral exams, debates, and interactive exercises must remain human-led”* (Participant 20). Furthermore, as GenAI tools become more prevalent, a shift toward higher-order cognitive skills is required ($n = 9$), placing *“more emphasis on critical thinking rather than rote memorization”* (Participant 3). Besides, any incorporation of GenAI tools in FL learning should consider contextual and infrastructural constraints ($n = 6$), as technology availability varies greatly by country; for example, *“Cuba is very backwards in terms of technology. There are only a few top universities where people have access to technology from the US”* (Participant 26).

Discussion

This study contributes to the growing body of scholarship on GenAI in education by foregrounding the perspectives of FL educators within the Caribbean, a context that remains underrepresented in AI-in-education research. Although many of the perceived affordances and concerns surrounding GenAI parallel findings reported globally, the study demonstrates that Caribbean educators interpret AI adoption through distinctive sociolinguistic, infrastructural, and pedagogical realities. Rather than viewing GenAI solely as a productivity-enhancing technology, participants evaluated its implications in relation to multilingualism, cultural representation, communicative authenticity, and unequal technological access. These findings suggest that GenAI adoption in FL education cannot be fully understood outside the sociocultural and linguistic ecologies in which language learning occurs.

In response to RQ1, FL educators largely framed GenAI as an augmentative pedagogical resource capable of enhancing lesson planning, feedback provision, administrative efficiency, and differentiated instruction. Consistent with earlier studies (Escalante et al., 2023; Kasneci et al., 2023; Moorhouse et al., 2023; Sullivan et al., 2023), participants recognized the relative advantage of GenAI in reducing routine workload and increasing instructional efficiency. However, the Caribbean context introduced concerns less visible in existing literature. Participants emphasized the need for contextual and cultural mediation when using AI-generated materials, particularly in multilingual and Creole-influenced learning environments where linguistic nuance and cultural relevance are central to communicative competence. Consequently, educators evaluated GenAI not only according to efficiency, but also according to its capacity to support culturally responsive pedagogy.

The findings also provide a more nuanced application of Diffusion of Innovations (DoI) theory by illustrating varying stages of GenAI adoption among FL educators. Participants who actively experimented with AI tools reflected characteristics associated with innovators and early adopters, whereas others demonstrated traits aligned with the early majority by cautiously integrating AI while seeking clearer institutional guidance and evidence of effectiveness. Participants expressing strong concerns regarding dependency, authenticity, and assessment validity reflected orientations more consistent with cautious adopters. Importantly, these categories were not fixed; educators often moved between enthusiasm and resistance depending on the pedagogical context. This suggests that GenAI adoption in language education is not merely technological, but also ethical and epistemological.

Similarly, the findings extend the relevance of the UNESCO AI Competency Framework for Teachers by revealing uneven development across competency domains. Participants displayed relatively strong awareness of AI's instructional affordances, corresponding with competencies related to AI literacy and pedagogical integration. However, many expressed uncertainties regarding ethical governance, bias detection, data privacy, algorithmic accountability, and the critical evaluation of AI-generated outputs. This indicates that operational familiarity with GenAI does not necessarily translate into deeper critical AI literacy. The findings therefore

support arguments that AI competence in education should extend beyond technical proficiency to include ethical reasoning, sociolinguistic awareness, and critical interrogation of AI-generated knowledge (Holmes & Tuomi, 2022; Miao & Holmes, 2023).

The findings for RQ2 reveal several tensions that move beyond a simple benefits-versus-risks framing. Participants welcomed GenAI's efficiency while simultaneously fearing that it could weaken deep learning, critical engagement, and authentic language production. Teachers appeared to value GenAI not when it replaced intellectual effort, but when it supported higher-order engagement. This reflects broader concerns that excessive reliance on AI may shift learners from active meaning-makers to passive consumers of generated content (Abubakar, 2025; Al Amin & Mahjabeen, 2025).

Participants also supported personalization while distrusting automated pedagogical judgement. Although educators appreciated AI's ability to adapt materials and provide individualized feedback, many questioned whether algorithmic systems could adequately interpret learner intention, communicative nuance, intercultural meaning, and affective dimensions of language learning. In FL education, communication extends beyond grammatical accuracy to include identity, pragmatics, and sociocultural understanding. Consequently, participants viewed meaningful personalization as requiring sustained human mediation, empathy, and contextual interpretation rather than relying solely on algorithmic adaptation. These findings suggest that GenAI may support differentiated instruction but cannot fully replace the relational and interpretive dimensions of language pedagogy.

A further tension emerged in participants' simultaneous embrace of innovation and defense of traditional teacher roles. Rather than perceiving GenAI as replacing teachers, participants redefined the teacher's role as increasingly interpretive, ethical, and facilitative. As generative technologies assume greater responsibility for routine instructional tasks, the distinctive value of language teachers may increasingly lie in cultivating critical thinking, intercultural competence, communicative authenticity, and ethical judgement. The findings therefore suggest that AI integration may elevate the importance of pedagogical discernment, metacognitive scaffolding, and human relational expertise (Yuliya, 2025).

Regarding RQ3, participants recognized the potential of GenAI to facilitate differentiated instruction, multilingual accessibility, adaptive feedback, and learner autonomy. However, the Caribbean context introduced concerns regarding the representation of regional linguistic realities within dominant AI systems. Participants noted that many GenAI tools insufficiently account for Creole languages, localized expressions, and culturally specific communicative practices. As a result, educators feared that AI integration could unintentionally reinforce linguistic hierarchies privileging dominant global languages while marginalizing regional linguistic identities. At the same time, participants identified opportunities for AI to support regional language preservation, multilingual learning, and culturally responsive instruction when appropriately localized. Linguistic diversity therefore emerged not merely as a contextual variable, but as a central consideration in equitable and culturally responsive AI adoption within FL education.

Concerning RQ4, educators increasingly perceived GenAI not as a temporary disruption, but as a catalyst for long-term pedagogical and epistemological transformation. Participants recognized that conventional assessment models grounded primarily in product-oriented evaluation may become increasingly untenable in AI-rich environments. Consequently, many advocated for assessment approaches emphasizing process, reflection, oral interaction, metacognition, and critical evaluation of AI-generated content. This reflects a broader shift from assessing knowledge reproduction toward assessing interpretive judgement, communicative reasoning, and authentic meaning-making.

These findings also raise broader questions concerning authorship and authenticity in language education. If students increasingly co-construct written texts with AI systems, traditional

distinctions between original and assisted work become more difficult to sustain. Rather than responding through prohibition alone, participants advocated for pedagogical models that acknowledge AI collaboration while preserving learner accountability, transparency, and critical engagement. The findings therefore contribute to emerging debates on post-authorship pedagogies by suggesting that the central issue is not whether AI is used, but how learners critically evaluate, revise, and ethically integrate AI-generated content into their own meaning-making processes.

Overall, the findings demonstrate that GenAI adoption in Caribbean FL education is characterized less by technological optimism or resistance than by ongoing negotiation between innovation, authenticity, ethics, and cultural relevance. The study contributes to the field in three principal ways. First, it expands the geographical and sociolinguistic scope of AI-in-education research by foregrounding Caribbean perspectives that remain largely absent from existing scholarship. Second, it demonstrates how DoI theory and the UNESCO AI Competency Framework can be applied interpretively to understand differentiated adoption patterns, ethical tensions, and evolving pedagogical identities. Third, it highlights that the future of FL education in AI-rich contexts may depend less on technological access alone and more on educators' capacity to cultivate critical AI literacy, ethical reasoning, intercultural competence, and authentic communicative engagement.

Ultimately, the findings suggest that successful GenAI integration in FL education requires more than technical implementation. It demands context-sensitive pedagogical frameworks, equitable infrastructure, culturally responsive AI systems, and sustained professional development that prepares educators not merely to use AI tools, but to critically mediate their role within increasingly complex linguistic, ethical, and educational landscapes.

Conceptualized Framework

This discussion gives birth to the Caribbean Contextualized Artificial Intelligence-Mediated (Carib-AIM) Framework. This framework (see Figure 1) conceptualizes effective GenAI adoption in FL education as a process shaped by the interaction of five interconnected dimensions: technological affordances, human pedagogical mediation, ethical and epistemic tensions, sociolinguistic and cultural contextualization, and transformative pedagogical adaptation.

The dimensions interact bidirectionally, reflecting how pedagogical judgement, ethical tensions, sociolinguistic realities, and technological affordances continuously shape and reshape educators' engagement with GenAI. Human pedagogical mediation functions as the central integrative mechanism through which AI tools are critically interpreted, adapted, and contextualized within Caribbean FL educational environments.

1. Technological Affordances

This dimension captures the perceived pedagogical benefits of GenAI, including efficiency, adaptive feedback, differentiated instruction, multilingual support, resource generation, and enhanced learner autonomy. It reflects why educators perceive GenAI as valuable and aligns with the "relative advantage" component of Diffusion of Innovations.

2. Human Pedagogical Mediation

This dimension emphasizes that meaningful AI integration requires sustained teacher oversight, interpretive judgement, ethical reasoning, and relational pedagogy. Teachers function not as passive users of AI, but as facilitators, mediators, and critical evaluators who ensure that AI-supported learning remains authentic, culturally sensitive, and pedagogically sound. This dimension reflects the study's finding that educators value GenAI when it augments rather than replaces professional expertise.

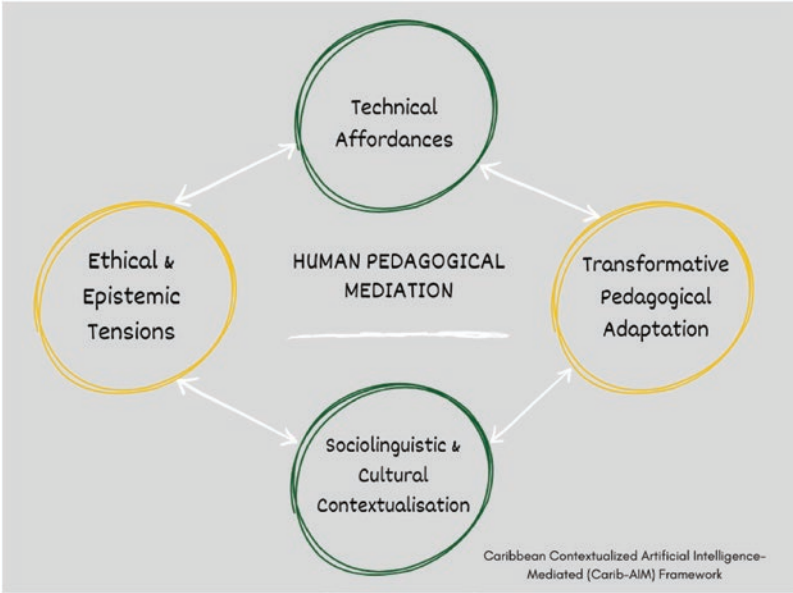


Figure 1. Caribbean contextualized Artificial Intelligence-Mediated (Carib-AIM) framework

3. Ethical and Epistemic Tensions

This dimension represents the contradictions identified in the findings, including efficiency versus deep learning, personalization versus algorithmic mistrust, innovation versus preservation of authentic learning, and AI assistance versus authorship and originality. The framework therefore positions GenAI adoption as an ongoing negotiation rather than a linear acceptance process. This dimension extends traditional interpretations of DoI theory by foregrounding ethical and epistemological concerns in adoption decisions.

4. Sociolinguistic and Cultural Contextualization

This dimension foregrounds the Caribbean-specific contribution of the study. It recognizes that AI integration in FL education is shaped by multilingualism, Creole linguistic realities, cultural representation, infrastructural inequality, and localized communicative practices. The framework argues that equitable GenAI adoption requires culturally responsive and linguistically inclusive AI systems.

5. Transformative Pedagogical Adaptation

This dimension captures the long-term implications of GenAI for curriculum, assessment, and teacher identity. It includes movement toward process-oriented assessment, critical AI literacy, reflective and metacognitive learning, authentic communicative tasks, evolving teacher roles as curators, facilitators, and ethical guides. This dimension aligns closely with the higher-order domains of the UNESCO AI Competency Framework for Teachers.

Collectively, the framework proposes that successful GenAI integration in FL education occurs when technological affordances are critically mediated through ethical pedagogy and adapted to local sociolinguistic realities. Rather than treating AI adoption as a purely technical process, the framework positions it as a context-sensitive pedagogical transformation shaped by human judgement, cultural responsiveness, and critical AI literacy.

Conclusion

This study examined FL educators' perceptions of GenAI in relation to pedagogical augmentation, ethical concerns, personalized learning, and the transformation of curriculum and assessment practices within Caribbean educational contexts. The findings indicate that educators do not perceive GenAI as a replacement for professional expertise, but rather as an augmentative pedagogical tool whose effectiveness depends on critical human mediation, contextual sensitivity, and ethical implementation. While participants recognized the potential of GenAI to enhance efficiency, differentiation, multilingual support, and adaptive learning, they also expressed concerns regarding academic integrity, overreliance, diminished critical engagement, bias, and the erosion of authentic communicative competence.

Across the four research questions, educators consistently negotiated tensions between innovation and authenticity, efficiency and deep learning, personalization and human judgement, and technological advancement and ethical responsibility. These findings suggest that GenAI integration in FL education is not merely a technical process of adoption, but an ongoing pedagogical and epistemological negotiation that reshapes understandings of teaching, learning, assessment, and authorship. Rather than rejecting AI outright, participants advocated for forms of integration that preserve meaningful human interaction, intercultural awareness, critical thinking, and authentic language use.

Importantly, the study highlights the distinctive influence of Caribbean sociolinguistic realities on GenAI adoption. Participants emphasized the importance of contextualized and culturally responsive AI integration within multilingual and Creole-influenced educational environments, where linguistic nuance, cultural identity, and unequal technological access significantly shape pedagogical practice. These findings therefore extend existing scholarship by demonstrating that AI adoption in FL education cannot be divorced from the sociocultural and linguistic ecologies in which language learning occurs.

Drawing on these findings, the study proposes the Caribbean Contextualized AI Mediation Framework (Carib-AIM Framework) as a conceptual model for understanding GenAI integration in FL education. The framework conceptualizes AI integration as a dynamic and recursive process shaped by the interaction among technological affordances, human pedagogical mediation, ethical and epistemic tensions, sociolinguistic contextualization, and transformative pedagogical adaptation. Central to the framework is the role of educators as critical mediators who interpret, contextualize, and ethically regulate AI use within culturally situated learning environments. In doing so, the Carib-AIM Framework moves beyond technologically deterministic perspectives by foregrounding the relational, interpretive, and human-centered dimensions of AI integration in language education.

The findings further suggest that GenAI may serve as a catalyst for curricular and assessment renewal in FL education. Rather than preserving traditional product-oriented assessment models, educators advocated for more process-oriented, reflective, and authentic approaches that acknowledge AI use while emphasizing learner accountability, metacognition, communicative competence, and critical engagement with AI-generated content. In this regard, GenAI is positioned less as a threat to FL education than as an opportunity to reaffirm its humanistic, ethical, and relational foundations.

At the policy level, the study underscores the urgent need for institutional and regional frameworks that balance innovation with equity, access, ethical accountability, and culturally responsive implementation across Caribbean educational systems. Without such structures, GenAI risks reinforcing existing inequalities, linguistic marginalization, and pedagogical inconsistencies. Sustained professional development, critical AI literacy initiatives, and context-sensitive policy guidance will therefore be essential to supporting responsible and equitable integration.

Overall, this study contributes empirical and conceptual insight into how Caribbean FL educators are actively negotiating GenAI within evolving teaching and learning ecosystems. More broadly, it highlights that the future of FL education in AI-mediated environments will depend not simply on technological adoption, but on educators' capacity to critically mediate AI in ways that preserve human agency, cultural relevance, communicative authenticity, and meaningful learning.

While the study offers important insights into GenAI integration from a Caribbean perspective, which remains underrepresented in the literature, several limitations should be acknowledged. First, the study relied on open-ended questionnaire responses, which, although useful for capturing perspectives across multiple territories, naturally limited the depth and richness of participant accounts. Unlike interviews or focus groups, survey responses often provide shorter and less elaborated reflections, which may constrain the exploration of more nuanced pedagogical experiences, tensions, and contextual complexities surrounding GenAI use in FL education. Consequently, some themes may appear broader or more generalized than would likely emerge through more in-depth qualitative approaches. Future research could therefore build on these findings through semi-structured interviews, focus groups, classroom observations, or ethnographic and longitudinal designs that allow for deeper exploration of how educators negotiate AI integration over time and within authentic instructional settings.

Second, the findings are based primarily on self-reported perceptions and do not fully capture how GenAI is enacted in actual classroom practice. Participants' stated beliefs may not always correspond with their pedagogical decision-making or instructional implementation. Observational, intervention-based, or design-based research could provide richer evidence regarding how educators operationalize GenAI within language teaching, assessment, and learner interaction. Third, although the sample reflected diversity in experience and territorial representation, some Caribbean countries and institutional contexts remained underrepresented. As such, the findings may not fully reflect the breadth of FL educational realities across varying national, linguistic, policy, and infrastructural environments within the region. Future studies could adopt comparative or cross-contextual approaches with larger samples to examine how GenAI adoption differs across educational systems, language programs, and policy contexts throughout the Caribbean. Additionally, this study focused primarily on educators' perspectives. Further research should incorporate student voices, particularly regarding learner agency, identity formation, authorship, motivation, and perceptions of assessment fairness in AI-mediated learning environments. Longitudinal studies examining the effects of sustained GenAI integration on language development, communicative competence, critical thinking, and academic integrity would also be valuable.

Finally, further empirical work is needed to investigate professional development models, ethical AI literacy frameworks, and AI-integrated assessment practices that are pedagogically sound and culturally responsive within Caribbean educational settings. Such research would contribute to a more comprehensive understanding of how GenAI can be integrated equitably and responsibly to support meaningful language learning outcomes across the region.

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Declarations

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