

Navigating Digital Transformation in Undergraduate Business English Education: Empowerment of Artificial Intelligence

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Abstract—The advent of Generative Artificial Intelligence (GenAI) represents a paradigm shift beyond previous AI applications in education. This paper presents a comprehensive practical study on the integration of GenAI tools, such as Large Language Models (LLMs), into undergraduate Business English (BE) teaching. It begins by delineating the unique capabilities of GenAI, including content generation, complex simulation, and dynamic feedback, which distinguish it from earlier adaptive and analytical AI systems. A systematic literature review traces the evolution from Computer-Assisted Language Learning to the current GenAI era, highlighting the research gap this study addresses. The paper then provides a detailed analysis of the current landscape, identifying transformative applications in curriculum personalization, scenario generation, and writing support, while critically examining emergent issues such as prompt dependency, academic integrity challenges, and the risk of decontextualized learning. Building on this analysis, a multi-layered practical pathway for integration is proposed, encompassing a revamped pedagogical model, strategic prompt engineering training, and a redefined teacher role. Finally, the study offers strategic, actionable countermeasures focused on developing critical AI literacy, creating "human-in-the-loop" assessment frameworks, and establishing institutional ethical guidelines. The findings aim to provide a robust framework for harnessing the transformative potential of GenAI in BE to foster deeper, more adaptive, and critically engaged learning, while proactively mitigating its risks.

Keywords— Generative AI; Business English Teaching; Large Language Models; Prompt Engineering; AI Literacy; Pedagogical Integration.

I. INTRODUCTION

Business English (BE), as a critical branch of English for Specific Purposes (ESP), is dedicated to equipping students with the linguistic, pragmatic, and intercultural competencies required to operate effectively in global business environments (Wang, 2016). The discipline's inherent complexity lies in its demand for the simultaneous application of language skills, domain-specific knowledge, and strategic thinking in authentic, often unpredictable, professional contexts. Traditional undergraduate BE instruction has consistently struggled to bridge the gap between the static, textbook-based classroom and the dynamic, fast-paced world of international commerce. Challenges such as providing individualized feedback at scale, creating truly immersive and varied business scenarios, and keeping curricular content current with evolving business practices have remained persistent.

The emergence of Generative Artificial Intelligence (GenAI), particularly powerful Large Language Models (LLMs) like GPT-4, represents a technological leap with profound implications for BE pedagogy. Unlike earlier forms of AI that were primarily analytical or adaptive, GenAI possesses generative and interactive capabilities. It can produce coherent, contextually relevant text, simulate multi-turn conversations, role-play diverse business personas, and generate complex, multi-modal learning materials on demand. This moves the potential of educational technology from *assisting* with instruction to *co-creating* the learning experience itself.

While the theoretical potential of GenAI is widely acknowledged, its practical integration into structured undergraduate BE programs is still in its infancy and is fraught with both promise and peril. Initial, ad-hoc usage by students and educators often overlooks systematic pedagogical design, leading to underutilization or misuse. This paper, therefore, moves beyond speculative discourse to conduct a rigorous practical study. Its primary objectives are: (1) to systematically map the current state of GenAI application in undergraduate BE teaching, identifying both its transformative applications and the novel problems it introduces; (2) to propose a detailed, pedagogically-grounded practical pathway for its effective integration into curriculum, instruction, and assessment; and (3) to formulate a set of strategic countermeasures for educators, institutions, and policymakers to maximize the benefits of GenAI while mitigating its inherent risks, thereby ensuring the development of future-ready, critically literate business professionals.

II. LITERATURE REVIEW

The integration of technology into language learning has evolved through distinct phases, each marked by increasing levels of interactivity and intelligence. Understanding this evolution is crucial to appreciating the disruptive nature of GenAI.

2.1 From CALL to Intelligent CALL

The journey began with Structural Computer-Assisted Language Learning (CALL), which focused on repetitive drills and grammatical exercises (Warschauer & Healey, 1998). The rise of the internet ushered in the era of Integrative CALL, emphasizing communication and access to authentic

materials through web-based projects and computer-mediated communication. The introduction of more sophisticated, data-driven tools marked the shift towards Intelligent CALL (iCALL), which incorporated elements of Natural Language Processing (NLP) for applications like automated writing evaluation (AWE) and intelligent tutoring systems (ITS). As Heift & Schulze (2015) documented, these systems provided valuable, if limited, feedback on error correction and allowed for a degree of personalization.

2.2 The Pre-Generative AI Landscape in BE

In the specific context of BE, pre-generative AI tools found several applications. AWE tools like Grammarly and Pigai were studied for their efficacy in improving the accuracy of business writing, with Li & Shi (2022)'s meta-analysis confirming their positive impact on writing revision strategies. Chatbots and conversational agents were developed for practicing routine business interactions, with Yang et al. (2023) finding that their AI negotiation chatbot improved student engagement. Furthermore, adaptive learning platforms were used to personalize the sequencing of vocabulary and grammar exercises. However, these systems were fundamentally constrained: they operated within pre-defined parameters, struggled with open-ended or creative tasks, and could not generate novel, high-quality content.

2.3 The Advent of Generative AI in Education

The advent of LLMs like OpenAI's GPT series and Google's PaLM has fundamentally altered the landscape. GenAI is not merely analytical; it is a generative technology capable of producing new, complex, and contextually appropriate outputs. Early research in education has begun to explore its implications. Kasneci et al. (2023) provide a broad overview of opportunities and challenges, highlighting its potential for personalized learning while warning of risks like hallucination and bias. In language learning, Kohnke (2023) discusses the potential of GenAI as a "conversation partner" and "collaborative tool," suggesting a shift towards more symbiotic human-AI relationships.

2.4 Identifying the Research Gap

While the literature acknowledges GenAI's general potential, a significant gap exists in the context of undergraduate BE. There is a lack of comprehensive, practice-oriented studies that:

- Systematically analyze the *specific* applications of GenAI tools across the core competencies of BE (e.g., negotiation, presentation, report writing, intercultural communication).
- Investigate the *novel pedagogical and ethical challenges* that GenAI introduces, moving beyond general concerns to BE-specific issues like the simulation of ethical dilemmas in business.
- Propose *concrete, actionable pathways and assessment models* for integrating GenAI into existing BE curricula in a sustainable and pedagogically sound manner.

This study aims to fill this critical gap by providing a holistic examination of GenAI in undergraduate BE teaching,

grounded in practical application and forward-looking strategy.

III. THE CURRENT LANDSCAPE AND EMERGENT ISSUES IN GENAI-EMPOWERED BE TEACHING

The integration of GenAI into BE is unfolding rapidly, demonstrating transformative potential while simultaneously surfacing a new set of complex challenges.

3.1 Current Transformative Applications

- **Dynamic Content Generation and Curriculum Personalization:** Instructors can use GenAI to rapidly generate a vast array of tailored teaching materials. This includes creating case studies for specific industries (e.g., "Generate a case study about a sustainable fashion startup expanding into the ASEAN market"), drafting sample business documents (emails, reports, press releases) at varying levels of complexity, and producing comprehension questions and vocabulary lists. This moves personalization from simply sequencing pre-existing content to generating unique content for each class or student group.
- **Complex, Multi-turn Business Simulations:** Unlike scripted chatbots, GenAI can power open-ended simulations where it role-plays multiple stakeholders (e.g., a demanding client, a hesitant partner, a C-suite executive). A student can engage in a prolonged email negotiation or a real-time, video-conference-style meeting simulation, facing unexpected objections and strategic shifts that mimic real-world unpredictability.
- **Intelligent and Context-Aware Writing Assistance:** While AWE tools check for errors, GenAI can act as a collaborative writing coach. Students can prompt it to "suggest three more persuasive ways to phrase this proposal's opening paragraph" or "critique the tone of this rejection email and propose a more diplomatic alternative." This shifts the support from grammatical form to rhetorical and strategic effectiveness.
- **On-Demand Research and Analysis Partner:** Students can use GenAI to quickly gather information on market trends, company profiles, or cultural business practices, accelerating the research phase for projects and presentations. It can also help analyze large documents, for instance, by "summarizing the key points from this annual report" or "identifying the persuasive techniques used in this marketing copy."

3.2 Emergent Issues and Challenges

The very power of GenAI introduces novel problems that were less pronounced with previous technologies.

3.2.1 Prompt Dependency and the "Illusion of Understanding"

The effectiveness of GenAI is contingent on the user's ability to craft precise, contextual prompts. Students with weak English proficiency or limited business knowledge may struggle to formulate effective prompts, leading to poor outputs and reinforcing their misconceptions. Furthermore, the fluency and coherence of GenAI's responses can create an

"illusion of understanding" for the student, who may believe they have mastered a concept by reading a well-generated answer without engaging in the cognitive struggle necessary for deep learning.

3.2.2 Academic Integrity and the Erosion of Critical Skill Development

The ease with which GenAI can generate high-quality text poses a fundamental challenge to traditional assessment methods. The line between using GenAI as a legitimate tool

for brainstorming and editing and using it to complete assignments dishonestly is blurry. More insidiously, over-reliance on GenAI for tasks like drafting and ideation could atrophy students' own writing, critical thinking, and problem-solving muscles—precisely the skills BE aims to cultivate. Figure 1 illustrates the tension between GenAI's potential to enhance skills like writing and research, and its concurrent risk of eroding foundational skills like critical thinking if not integrated thoughtfully.

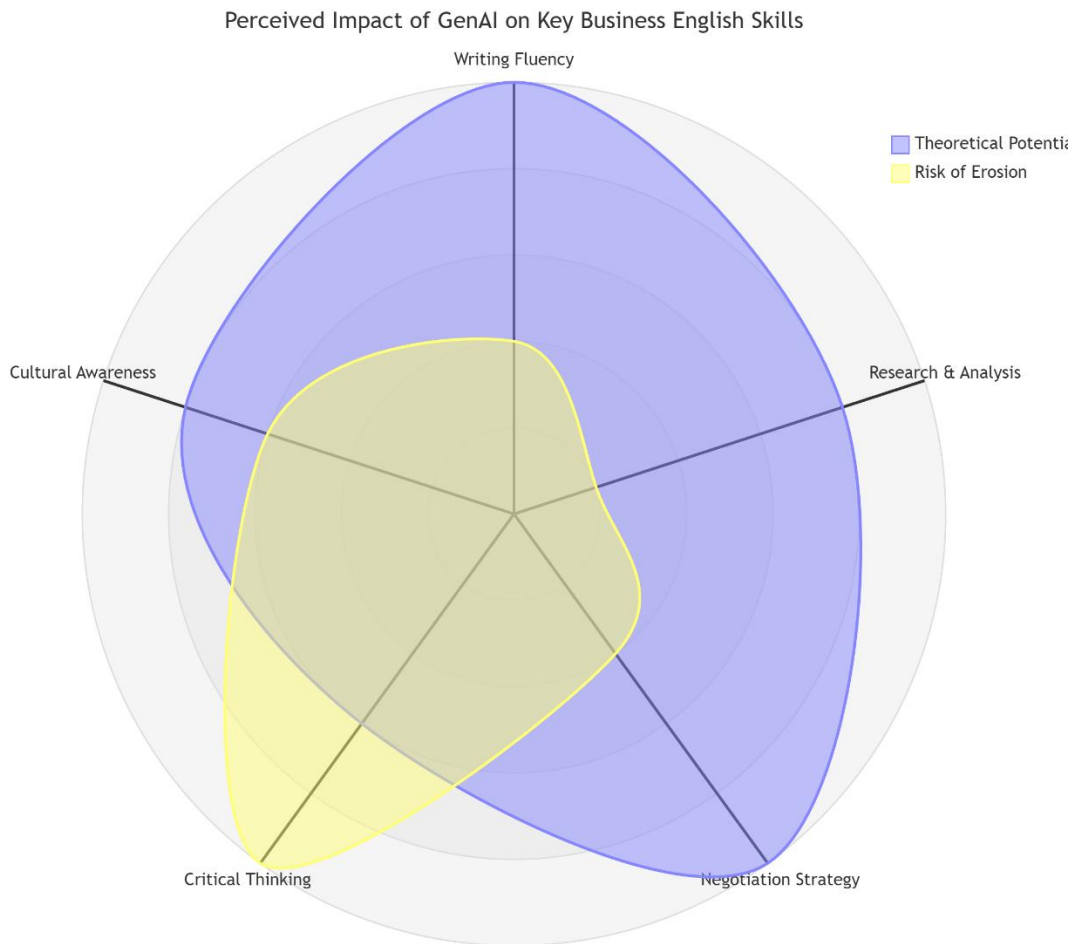


Figure 1: Perceived Impact of GenAI on Key Business English Skills (Conceptual Framework based on Literature Synthesis)

3.2.3 Contextual Hallucinations and Bias

GenAI models can "hallucinate," generating plausible-sounding but factually incorrect or nonsensical information. In a BE context, this could mean inventing financial data, misrepresenting a company's policy, or providing inaccurate cultural advice. Furthermore, these models are trained on vast internet data that contain societal biases, which could manifest as stereotypical representations of certain cultures or business practices, thereby undermining intercultural learning objectives.

3.2.4 The Assessment Dilemma and Teacher Readiness

Traditional assessments like take-home essays and reports are no longer secure. The need to redesign assessment for a GenAI-enabled world is urgent. Simultaneously, a significant "teacher readiness gap" exists. Many BE instructors lack the training and confidence to redesign their courses, craft effective AI-integrated activities, and navigate the new ethical landscape, potentially leading to resistance or ineffective implementation.

IV. PRACTICAL PATHWAYS FOR GENAI INTEGRATION IN UNDERGRADUATE BE TEACHING

To harness GenAI's potential while mitigating its risks, a strategic and pedagogically grounded integration pathway is essential. This involves rethinking pedagogical models, developing new student and teacher competencies, and redesigning assessments.

4.1 A Pedagogical Framework: From "Flipped Classroom" to "Co-Creation Classroom"

The old model of instruction can be evolved into a dynamic, AI-integrated one.

- Phase 1: Foundation & Conceptualization (Instructor-led): The instructor introduces core business concepts and language frameworks. GenAI is used to generate diverse examples and illustrative scenarios based on these concepts.
- Phase 2: Active Simulation & Co-Creation (Student & GenAI): Students engage with GenAI in structured tasks. For example:
 - Role-play: "You are the AI CEO of 'Global Tech.' I am a project manager presenting a budget overrun. Respond to my presentation."
 - Document Drafting: "Help me draft an email to a client apologizing for a shipping delay. Ensure the tone is empathetic but confident."
 - Critical Analysis: "Generate a marketing report for Product X. Now, identify three potential weaknesses in its argument and suggest improvements."
- Phase 3: Human Synthesis & Critical Evaluation (Instructor & Peers): The outputs from Phase 2 become the subject of critical discussion. Students present their AI-generated strategies and documents, justifying their choices and critiquing the AI's suggestions. The instructor facilitates, providing deeper insights and correcting misconceptions.

4.2 Developing Core Competencies: Prompt Engineering and AI Literacy

BE curricula must now explicitly teach students how to interact with AI effectively.

- Structured Prompt Engineering: Move beyond simple queries. Teach the CLEAR framework for prompting:
 - Context: Set the scene. ("You are a senior consultant at McKinsey...")
 - Learning Objective: State the goal. ("...to help me refine my presentation pitch.")
 - Expectation: Define the output format. ("Provide feedback in bullet points, focusing on clarity and persuasiveness.")
 - Action: Specify the task. ("Analyze the following transcript...")
 - Refinement: Iterate. ("Now, make the language more formal.")
- Critical AI Literacy: Students must learn to critically evaluate every AI output. This includes cross-referencing facts, identifying potential bias, and understanding the AI's limitations. An assignment could involve

deliberately prompting an AI to make a mistake and then writing a report analyzing the error.

4.3 Redefining the Teacher's Role: From Source of Knowledge to Orchestrator of Learning

The BE instructor's role evolves into a more complex and crucial one:

- Learning Designer: Curating and designing AI-integrated learning experiences and assessments.
- AI Interpreter and Mediator: Helping students decipher, critique, and contextualize AI-generated content.
- Mentor and Ethicist: Guiding discussions on the ethical use of AI in business and fostering the human skills—empathy, leadership, creativity—that AI lacks.

Figure 3 visualizes the continuous, iterative process of integrating GenAI, positioning the teacher as the central orchestrator.

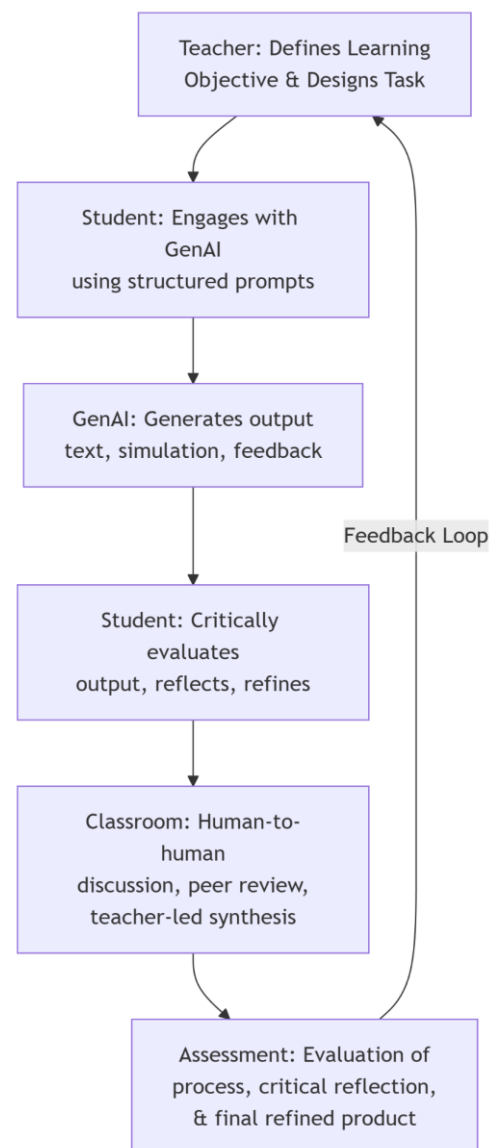


Figure 3: A Proposed Cyclical Model for GenAI Integration in a BE Course

V. COUNTERMEASURES AND STRATEGIC SUGGESTIONS FOR IMPROVEMENT

For sustainable and ethical integration, a multi-stakeholder approach is required, involving pedagogical shifts, policy development, and ongoing research.

5.1 Developing a Critical AI Literacy Curriculum

Institutions should embed mandatory modules on AI literacy within the BE curriculum. This should cover:

- Functional Literacy: How GenAI works, its capabilities, and its limitations.
- Critical Literacy: Evaluating outputs for bias, accuracy, and relevance.
- Ethical Literacy: Understanding issues of plagiarism, data privacy, and the environmental impact of AI.
- Professional Literacy: Exploring how AI is transforming various business functions and the corresponding skills needed.

5.2 Implementing "Human-in-the-Loop" Assessment Frameworks

Assessment must shift from evaluating the final product to evaluating the entire process. This can be achieved through:

- Process-Oriented Assessments: Requiring students to submit their prompt history, iterations of their work, and a reflective memo explaining how they used and critiqued the AI's input.
- Oral Examinations and In-class Demonstrations: Using viva voce exams or in-class, timed presentations to verify knowledge and skills without AI assistance.
- AI-Augmented, Not AI-Replaced, Evaluation: Instructors can use GenAI to generate first-pass feedback on student submissions, but the final grading and nuanced feedback must come from the human instructor.

5.3 Establishing Clear Institutional Policies and Ethical Guidelines

Universities must proactively develop policies that provide clarity and ensure fairness:

- A Use-Code for GenAI: Defining acceptable and unacceptable uses of AI for coursework, moving away from simplistic bans towards nuanced, context-dependent rules.
- Transparency Mandates: Requiring students to declare and describe how they have used GenAI in their assignments.
- Data Privacy and Security Protocols: Ensuring that student data entered into GenAI tools is protected, preferring institutional licenses with strong data governance over free, public models where possible.

5.4 Fostering Continuous Teacher Professional Development

Supporting teachers is paramount. Institutions must invest in:

- Hands-on Workshops: Focused on prompt engineering, curriculum redesign, and AI-integrated assessment design.
- Communities of Practice: Creating forums where BE

instructors can share best practices, lesson plans, and strategies for addressing challenges.

- Incentives for Innovation: Providing grants and recognition for faculty who develop and research effective GenAI-enhanced teaching methods.

VI. CONCLUSION

Generative AI is not a fleeting trend but a foundational technology that is reshaping the landscape of undergraduate Business English teaching. Its ability to generate content, simulate complex interactions, and provide dynamic feedback offers an unprecedented opportunity to create more personalized, engaging, and practical learning experiences that closely mirror the realities of the global business world. However, this power is a double-edged sword, bringing to the fore critical challenges related to academic integrity, critical thinking erosion, contextual inaccuracy, and teacher preparedness.

This practical study has argued that the path forward does not lie in resistance or unregulated adoption, but in strategic, pedagogically informed integration. By adopting a "Co-Creation Classroom" model, explicitly teaching prompt engineering and critical AI literacy, redefining the teacher's role as a learning orchestrator, and fundamentally reforming assessment practices, BE programs can harness GenAI's potential. The proposed countermeasures—centered on curriculum development, policy creation, and teacher support—provide a concrete starting point for this transformation.

The ultimate goal is to foster a synergistic partnership where GenAI handles the computationally intensive tasks of information retrieval, draft generation, and scenario simulation, thereby freeing up human intelligence for what it does best: critical analysis, ethical reasoning, creative problem-solving, and building genuine human connection. The future of Business English education will belong to those educators and institutions that can effectively cultivate this human-AI synergy, producing graduates who are not only proficient in business communication but are also critically literate, adaptable, and ethically grounded leaders for the AI-augmented workplace.

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