

A Didactic Model for Ai-Enhanced English Language Instruction in Higher Education: Design, Principles, And Implementation

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Abstract: The rapid integration of artificial intelligence into educational contexts necessitates the development of coherent, theoretically grounded pedagogical frameworks that go beyond the opportunistic deployment of individual tools. This paper presents a didactic model for AI-enhanced English language instruction designed for use in Central Asian higher education. The model synthesises a learner-centred educational philosophy with communicative language teaching principles and the technical affordances of generative AI language models. It is structured around five interrelated blocks — goal-setting, content, methodology, technology, and assessment — and is underpinned by five didactic principles: communicativeness, learner engagement, conscious learning, step-by-step progression, and individualisation. The paper describes the theoretical basis of the model, its structural components, and the conditions required for its effective implementation. Illustrative examples from practice at New Uzbekistan University and partner institutions demonstrate how the model operates in real instructional contexts. The proposed framework offers a replicable template for teacher educators, curriculum designers, and policymakers engaged in the systematic integration of AI into language education.

Keywords: Didactic model, AI integration, EFL pedagogy, communicative competence, personalised learning, higher education.

Introduction: Across the global higher education landscape, institutions are grappling with the practical and theoretical implications of integrating artificial intelligence into teaching and learning. In language education specifically, AI tools — from grammar checkers and pronunciation analysers to sophisticated conversational systems — have proliferated rapidly, often outpacing the development of the pedagogical frameworks needed to use them coherently and effectively. The risk, as numerous commentators have noted, is that technology-enhanced instruction amounts to little more than the digitisation of existing practices, rather than the genuine transformation of learning experiences (Fullan, 2007; Selwyn, 2016).

This paper argues that what is needed is not merely a catalogue of available tools, but a systematic didactic

model that specifies the goals, content, methods, technological means, and assessment procedures appropriate for AI-enhanced language instruction. Such a model must be grounded in established pedagogical theory while remaining flexible enough to accommodate the rapid evolution of AI capabilities.

The model presented here was developed through a synthesis of the pedagogical methodology literature — particularly the work of Passov (1989) on communicative foreign language teaching, Jalolov (2012) on the principles of foreign language didactics, and Laurillard (2012) on conversational frameworks for learning — and iterative practical testing in the authors' own teaching contexts at New Uzbekistan University and collaborating institutions in Uzbekistan.

THEORETICAL FOUNDATIONS

The model is grounded in three intersecting theoretical traditions. First, communicative language teaching (CLT) provides the overarching pedagogical orientation: language learning is understood as the development of communicative competence through meaningful use, with accuracy subordinated to fluency and authentic communication (Savignon, 1991). Second, learner-centred education positions the student as an active, self-regulating agent responsible for managing aspects of their own learning trajectory (Rogers, 1969; Nunan, 1988). Third, the theory of constructivism holds that learners build knowledge through active engagement with problems and through the social negotiation of meaning (Vygotsky, 1978; Bruner, 1996).

These three traditions converge in important ways: all three foreground learner agency, authentic purposeful activity, and the social dimension of learning. AI language models, as the technological foundation of the proposed model, can be understood as sophisticated scaffolds — in the Vygotskian sense — that extend learners' capacity to operate in their zone of proximal development by providing support calibrated to individual need and withdrawable as competence grows.

STRUCTURE OF THE MODEL

1 The Five Structural Blocks

The model comprises five interrelated blocks that collectively define the architecture of AI-enhanced instruction. The goal-setting block specifies the intended learning outcomes in terms of communicative competence descriptors aligned with the Common European Framework of Reference (CEFR). The content block defines the linguistic, thematic, and disciplinary material to be addressed, drawing on approved state educational standards while exploiting the flexibility of AI to contextualise content to learners' fields of study. The methodology block specifies the instructional strategies and activity types through which content is addressed and goals pursued — including AI-mediated dialogue simulation, prompt-engineered task sequences, and reflective journaling. The technology block identifies the specific AI platforms, digital resources, and prompt engineering protocols that constitute the technical infrastructure of the instructional environment. The assessment block

specifies both formative assessment, delivered in real time by the AI, and summative assessment, conducted by the teacher using analytic rubrics.

2 The Five Didactic Principles

The five didactic principles governing the model are: (1) Communicativeness — the primacy of authentic communicative interaction as the vehicle for language development; (2) Learner engagement — the requirement that students participate actively, critically, and creatively in instructional tasks rather than functioning as passive information receivers; (3) Conscious learning — the expectation that learners develop explicit awareness of the language phenomena they are working with, supported by AI-generated explanations and metalinguistic commentary; (4) Step-by-step progression — the organisation of instructional content and tasks along a consistent gradient from simple to complex, from controlled to free, from receptive to productive; and (5) Individualisation — the tailoring of task content, difficulty, feedback, and pace to each learner's specific profile, interests, and needs, enabled systematically by AI adaptive systems.

IMPLEMENTATION CONDITIONS

The model cannot be implemented effectively without a set of enabling conditions. At the institutional level, these include reliable internet connectivity, access to appropriate AI platforms, and a supportive policy environment that acknowledges and sanctions AI-enhanced instruction. At the teacher level, the model requires practitioners who have acquired both the technical competence to work fluently with AI tools and the pedagogical competence to function as facilitators rather than knowledge transmitters. Teacher training and continuing professional development thus become critical prerequisites rather than optional add-ons.

At the learner level, successful implementation requires students who possess a baseline digital literacy and who are disposed toward learner autonomy. Research conducted in the Uzbekistan context (Gulamova, 2024) suggests that while Generation Z learners generally demonstrate high comfort with digital interfaces, they may initially require explicit guidance and encouragement to engage with AI in a genuinely open-ended

communicative mode rather than instrumentally seeking ready-made answers. The model therefore incorporates a structured orientation phase during which learners are inducted into productive AI interaction through scaffolded prompt sequences.

MODEL IN PRACTICE: ILLUSTRATIVE EXAMPLES

At New Uzbekistan University, the model has been operationalised within the BA Creative Thinking and Design course through project-based units in which students use AI dialogue systems as collaborative problem-solving partners. For students in the natural sciences track, AI is used to generate and evaluate English-medium explanations of experimental procedures, while students in the social sciences track engage in AI-mediated simulations of professional discourse contexts such as policy debates and stakeholder negotiations. Across both tracks, the AI-generated interaction is logged and subsequently reviewed in teacher-facilitated reflection sessions, closing the communicative loop and connecting autonomous AI practice to formal academic assessment.

At Kokand State University and the National Pedagogical University of Uzbekistan, the model has been implemented within integrated skills courses, where it functions primarily as an instrument for extensive speaking practice outside scheduled class time. Students access structured chatbot sessions independently, guided by weekly prompt cards prepared by their teachers. Teacher-designed prompts follow a consistent progression from topic-focused conversation (weeks 1–4) through argumentation and opinion expression (weeks 5–9) to extended academic discourse (weeks 10–14).

CONCLUSION

The didactic model presented in this paper offers a principled, systematically structured framework for the integration of AI into EFL instruction at the university level. By specifying the goals, content, methods, technology, and assessment procedures appropriate for AI-enhanced language learning, and by grounding these specifications in established pedagogical theory, the model moves beyond ad hoc tool adoption toward genuine instructional innovation. Ongoing evaluation of the model's effectiveness in practice will be essential to its continued refinement; to this end, future work

will focus on longitudinal assessment of learning outcomes and systematic analysis of learner and teacher experience.

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