

MIXED-ROLES CROSS-CULTURAL DESIGN IN ESP RESEARCH: COMBINING UZBEK LEARNERS AND BRITISH NATIVE-SPEAKER RESPONDENTS

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Annotation: *This thesis presents a methodological approach — the mixed-roles cross-cultural design — developed for empirical research on AI-based tools in teaching English for Specific Purposes (ESP). The design resolves a critical methodological challenge: native English speakers cannot serve as ESP learners, since ESP is by definition designed for foreign-language learners. Testing native speakers on ESP instruments produces ceiling effects and methodologically invalid results. The mixed-roles design assigns Uzbek learners to the experimental and control groups of the proficiency study, while British native speakers contribute through a parallel survey on AI in language education. The paper outlines the rationale, structure, and procedures of this design and reports preliminary findings from its application at Chirchik State Pedagogical University and the University of Warwick.*

Keywords: *ESP, mixed-roles design, cross-cultural research, native-speaker perspectives, AI in language education, methodology.*

Cross-cultural research in language pedagogy faces a recurring methodological dilemma: how to compare learner outcomes across populations with fundamentally different starting points. Comparing Uzbek learners of English with British native speakers on the same English proficiency instrument is meaningless — the native speakers will achieve ceiling-level scores, leaving no room for measurable change. This dilemma is especially acute in English for Specific Purposes (ESP), since, as T. Hutchinson and A. Waters established in 1987 [1], ESP is by definition designed for foreign-language learners. Recent research on AI in language education has frequently overlooked this issue, producing cross-cultural studies whose internal validity is compromised from the start [2].

The **mixed-roles design** addresses this challenge directly. Rather than placing Uzbek and British students in parallel experimental conditions, the design assigns them complementary roles within a single research project.

The Uzbek learners constitute the experimental and control groups of a quasi-experimental study, completing pre-tests and post-tests on ESP proficiency. The British native speakers, by contrast, participate as **survey respondents** who offer expert perspectives on the use of AI in language education. Their contribution lies not in their measurable language gains but in their informed views as native users of English with personal experience of AI tools.

The implementation of this design proceeded in three stages. First, **preparation** (one week): consent forms were collected from all 40 participants; pre-tests were administered to the 20 Uzbek learners; the online survey was launched for the 20 Warwick participants. Second, **intervention** (four weeks): the Uzbek experimental group worked with AI-based tools (ChatGPT, Grammarly, ELSA Speak), while the control group followed traditional textbook-based instruction. The Warwick survey collected responses in parallel. Third, **evaluation** (one week): post-tests measured proficiency gains in the Uzbek learners; the motivation and attitudes survey was completed; and the Warwick responses were aggregated and analyzed.

The results illustrate the value of this design. The Uzbek experimental group demonstrated modestly higher proficiency gains than the control group across all four skills: writing (12% vs. 7%), speaking (10% vs. 6%), reading (11% vs. 8%), and listening (8% vs. 6%). The AI-based group also reported significantly higher motivation (4.6 vs. 3.8 on a 5-point Likert scale), engagement (4.7 vs. 3.6), and learner autonomy (4.5 vs. 3.4). The Warwick respondents, in turn, expressed broadly favorable views on AI in language education (average 4.2/5 on support for non-native learners) while highlighting concerns about authenticity (3.9), over-reliance (3.8), and academic integrity (4.1). The two data sets are complementary: the Uzbek data provide measurable learning outcomes, while the Warwick data provide native-speaker perspectives on the broader pedagogical implications.

The mixed-roles design has methodological implications beyond the present study. It preserves internal validity (no ceiling effects on native speakers), maintains theoretical coherence (consistent with the foundational ESP principle that ESP is for foreign-language learners), and still produces meaningful cross-cultural data. The design can be adapted to other ESP contexts — medical English, legal English, business English — and to other pairs of national contexts. As AI continues to transform language

education, methodologically rigorous cross-cultural research will become increasingly important. The mixed-roles design offers one principled solution to a problem the field has too often ignored.

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