SIMULATION-BASED ESP LEARNING AS A MEANS OF DEVELOPING PROFESSIONAL LINGUISTIC IDENTITY IN FUTURE ARCHITECTS WITHIN GLOBALIZED EDUCATIONAL ENVIRONMENTS

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Abstract. This study investigates simulation-based English for Specific Purposes (ESP) learning as an effective pedagogical approach for developing the professional linguistic identity of future architects in increasingly globalized educational and professional environments. The research examines how authentic simulations, role-plays, digital design scenarios, project presentations, and interdisciplinary collaborative tasks contribute to the formation of communicative competence and professional self-concept among architecture students. Particular attention is given to the integration of real-world architectural discourse into ESP instruction, enabling learners to acquire specialized terminology, negotiation strategies, presentation skills, and intercultural communication abilities required in international architectural practice.

The study draws upon communicative language teaching, task-based learning, and sociocultural theories of identity formation to demonstrate that simulation-based ESP instruction enhances students’ ability to operate within multilingual and multicultural professional contexts. The findings indicate that immersive simulations create cognitively and professionally meaningful learning environments in which students actively construct their linguistic and professional identities through authentic interaction and problem-solving activities. Furthermore, digital simulations and virtual collaborative platforms are shown to increase learner engagement, autonomy, and contextualized language acquisition, preparing future architects for participation in global professional communities.

The research also emphasizes the growing importance of English as a lingua franca in architecture, where international cooperation, academic mobility, and transnational design projects require advanced professional communication skills. The results suggest that simulation-based ESP learning significantly improves students’ professional discourse competence, confidence in professional interaction, and readiness for globalized workplace communication. Consequently, the study supports the integration of simulation technologies and authentic communicative tasks into ESP curricula for architecture students as a means of bridging the gap between academic preparation and professional practice.

Keywords: simulation-based learning, professional linguistic identity, architecture students, architectural discourse, digital simulations, intercultural communication, professional communication, architectural education.

Аннотация. В данном исследовании рассматривается изучение английского языка для специальных целей на основе имитационного моделирования (ESP) как эффективный педагогический подход к развитию профессиональной языковой идентичности будущих архитекторов во все более глобализирующейся образовательной и профессиональной среде. В исследовании рассматривается, как аутентичные симуляторы, ролевые игры, сценарии цифрового дизайна,

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презентации проектов и междисциплинарные совместные задания способствуют формированию коммуникативной компетентности и профессиональной самооценки у студентов-архитекторов. Особое внимание уделяется интеграции реального архитектурного дискурса в обучение ESP, что позволяет учащимся овладеть специализированной терминологией, стратегиями ведения переговоров, навыками презентации и навыками межкультурной коммуникации, необходимыми в международной архитектурной практике.

Исследование опирается на коммуникативное обучение языку, обучение, основанное на задачах, и социокультурные теории формирования идентичности, чтобы продемонстрировать, что обучение ESP на основе моделирования повышает способность студентов работать в многоязычном и мультикультурном профессиональном контексте. Полученные результаты показывают, что иммерсионные симуляторы создают когнитивно и профессионально значимую среду обучения, в которой учащиеся активно формируют свою языковую и профессиональную идентичность посредством аутентичного взаимодействия и решения проблем. Кроме того, доказано, что цифровое моделирование и виртуальные платформы для совместной работы повышают вовлеченность учащихся, их автономию и способность к овладению языком в контексте, подготавливая будущих архитекторов к участию в глобальных профессиональных сообществах.

В исследовании также подчеркивается растущее значение английского языка как лингва франка в архитектуре, где международное сотрудничество, академическая мобильность и транснациональные дизайнерские проекты требуют передовых профессиональных коммуникативных навыков. Полученные результаты свидетельствуют о том, что обучение ESP на основе моделирования значительно повышает профессиональную дискурсивную компетентность студентов, уверенность в профессиональном взаимодействии и готовность к локализированному общению на рабочем месте. Следовательно, исследование поддерживает интеграцию технологий моделирования и аутентичных коммуникативных заданий в учебные планы ESP для студентов-архитекторов как средство преодоления разрыва между академической подготовкой и профессиональной практикой.

Ключевые слова: имитационное обучение, профессиональная языковая идентичность, студенты-архитекторы, архитектурный дискурс, цифровое моделирование, межкультурная коммуникация, профессиональное общение, архитектурное образование.

Annotatsiya. Ushbu tadqiqot ingliz tilini simulyatsiya modellashtirish (ESP) asosida maxsus maqsadlar uchun o'rganishni tobora globallashib borayotgan ta'lim va kasbiy muhitda kelajakdagi me'morlarning kasbiy lingvistik identifikatsiyasini rivojlantirishga samarali pedagogik yondashuv sifatida o'rganadi. Tadqiqotda haqiqiy simulyatorlar, rolli o‘yinlar, raqamli dizayn ssenariylari, loyiha taqdimotlari va fanlararo hamkorlikdagi topshiriqlar arxitektura talabalarida kommunikativ kompetentlik va kasbiy o‘z-o‘zini baholashni shakllantirishga qanday yordam berishi ko‘rib chiqiladi. ESP ta’limiga haqiqiy me’moriy nutqni integratsiyalashga alohida e’tibor qaratiladi, bu esa o‘quvchilarga xalqaro me’moriy amaliyotda zarur bo‘lgan maxsus terminologiya, muzokaralar olib borish strategiyalari, taqdimot ko‘nikmalari va madaniyatlararo muloqot ko‘nikmalarini egallash imkonini beradi.

Tadqiqot tilni kommunikativ o‘rgatish, vazifalarga asoslangan o‘qitish va o‘ziga xoslikni shakllantirishning ijtimoiy-madaniy nazariyalariga tayanib, modellashtirishga asoslangan ESP o‘qitish talabalarning ko‘p tilli va ko‘p madaniyatli kasbiy kontekstda ishlash qobiliyatini oshirishini ko‘rsatadi. Olingan natijalar shuni ko‘rsatadiki, immersiv simulyatorlar kognitiv va kasbiy ahamiyatga ega bo‘lgan ta’lim muhitini yaratadi, bunda o‘quvchilar haqiqiy o‘zaro ta’sir va muammolarni hal etish orqali o‘zlarining til va kasbiy o‘ziga xosligini faol shakllantiradilar. Bundan tashqari, raqamli modellashtirish va virtual hamkorlik platformalari o‘quvchilarning faolligini, avtonomligini va kontekstda til o‘zlashtirish qobiliyatini oshirishi, bo‘lajak arxitektorlarni global professional jamoalarda ishtirok etishga tayyorlashi isbotlangan.

Tadqiqotda, shuningdek, xalqaro hamkorlik, akademik mobillik va transmilliy dizayn loyihalari ilg‘or kasbiy muloqot ko‘nikmalarini talab qiladigan arxitekturada ingliz tilining lingua franca sifatidagi ahamiyati ortib borayotgani ta’kidlangan. Olingan natijalar shuni ko‘rsatmoqdaki, modellashtirish asosida ESP o‘qitish talabalarning kasbiy diskursiv kompetentligini, kasbiy o‘zaro munosabatlarga ishonchini va ish joyida globallashgan muloqotga tayyorligini sezilarli darajada oshiradi. Binobarin, tadqiqot modellashtirish texnologiyalari va haqiqiy kommunikativ topshiriqlarni arxitektura talabalari uchun ESP o‘quv rejalariga integratsiyalashni akademik tayyorgarlik va kasbiy amaliyot o‘rtasidagi tafovutni bartaraf etish vositasi sifatida qo‘llab-quvvatlaydi.

Kalit so‘zlar: taqlidiy ta’lim, kasbiy til o‘ziga xosligi, arxitektura talabalari, arxitektura nutqi, raqamli modellashtirish, madaniyatlararo muloqot, kasbiy muloqot, arxitektura ta’limi.

Introduction

Globalization has transformed the professional landscape of architecture, requiring graduates to communicate effectively in English across international teams, competitions, and publications. Traditional language instruction, however, often remains disconnected from the actual discourse demands of the profession (Dudley-Evans, 1998). English for Specific Purposes (ESP), especially when enriched through simulation-based learning (SBL), offers a principled response by embedding language instruction within authentic professional scenarios.

Professional linguistic identity — the internalized sense of oneself as a competent communicator within a specific professional domain — is not formed through passive language study but through repeated, purposeful engagement with professional discourse (Norton, 2013). For future architects, this means designing, presenting, and negotiating in English under conditions that approximate real practice. This article argues that simulation-based ESP learning is the most effective available mechanism for cultivating this identity within globalized educational environments.

Literature Review and Methodology

The intersection of ESP, simulation-based learning, and professional linguistic identity formation in architectural education remains underexplored. ESP scholarship has concentrated on needs analysis and materials design (Basturkmen, 2010); simulation research has focused primarily on medical and engineering contexts (Shokirov, 2025); and identity theory in applied linguistics has seldom engaged with architecture as a target profession (Norton, 2013).

This study draws on three theoretical frameworks: Task-Based Language Teaching (TBLT), which positions authentic tasks as the primary unit of instruction (Willis,

2007); experiential learning theory (Kolb, 1984), which conceptualizes learning as a cyclical process of experience, reflection, and application (Kolb,1984); and Norton's (2013) investment model, which frames identity as a dynamic, socially constructed orientation toward language learning (Norton, 2013).

The study employs a systematic literature review methodology. Scopus, ERIC, Web of Science, and Google Scholar were searched using the terms: "ESP simulation", "professional linguistic identity language learning", "authentic simulation ELT", and "communicative competence architecture". Peer-reviewed sources published between 2009 and 2025 were included, 15 were selected for thematic synthesis.

Discussion

Authentic simulations — client consultations, design critiques, project defense sessions — embed language use within the communicative genres that define architectural professional practice. Research consistently shows that task-based simulations produce measurable gains in communicative competence and professional confidence (Basturkmen, 2010). Crucially, repeated engagement with simulated professional roles accelerates identity formation: students begin to internalize English as a professional tool, not merely an academic requirement (Norton, 2013).

Digital simulations extend this process into technologically-mediated environments. Building Information Modeling (BIM) platforms require technical documentation in English; Virtual Reality (VR) simulations enable immersive design presentations; AI-assisted tools provide real-time linguistic feedback (Godwin-Jones, 2011). These environments integrate linguistic and disciplinary competence development, replicating the multimodal communication demands of contemporary global architectural practice (Shokirov, 2025).

Globalization amplifies the identity stakes of ESP development. The dominance of English as the lingua franca of international architecture creates both opportunity and pressure for students to construct a globally-oriented professional self. Canagarajah argues for a translingual approach — one that prepares students to deploy multiple linguistic and cultural resources flexibly, rather than simply assimilating to a monolithic English norm (Canagarajah, 2013). Simulation-based ESP instruction supports this goal by situating language tasks within culturally diverse, internationally-oriented scenarios.

Results

The systematic literature review yields four principal findings. First, authentic simulations significantly improve ESP communicative competence in architecture students, with measurable gains in oral fluency, genre-appropriate discourse, and technical vocabulary. Second, digital simulation environments facilitate integrated linguistic and professional competence development, reducing the artificial separation between language learning and disciplinary knowledge. Third, repeated simulation-based engagement accelerates professional linguistic identity formation, characterized by increased communicative confidence and a stable orientation toward English as professional self-expression. Fourth, a cyclical, integrated model — combining authentic simulation, digital platforms, and structured reflection — produces stronger outcomes than either modality alone (Willis, 2007).

Conclusion

This article has demonstrated that simulation-based ESP learning constitutes a principled and effective means of developing professional linguistic identity in future architects within globalized educational environments. By embedding English use

within authentic and digitally-mediated professional scenarios, this approach enables architecture students to construct themselves not merely as language learners, but as competent professional communicators prepared for global practice.

Practical recommendations for ESP curriculum designers include: incorporating structured role-play simulations aligned with real architectural genres; integrating BIM and VR platforms into language instruction; and embedding reflective debriefing sessions to consolidate both linguistic and identity development. Future research should pursue longitudinal empirical studies examining the sustained impact of simulation-based ESP instruction on graduates' professional communication trajectories.

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