

## INTEGRATING MULTIPLE PEDAGOGICAL APPROACHES IN AN ESP COURSE FOR OIL AND GAS PROFESSIONALS: A COURSE DESIGN FRAMEWORK

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### **Abstract**

English language proficiency has become increasingly important for oil and gas professionals operating in international contexts, yet ESP course design for this learner group remains underrepresented in Central Asian research. This study documents the design and implementation of an integrated multi-approach ESP course at UzbekNefteGaz (UNG), developed for seven heads of department at the B1+ CEFR level. Four complementary approaches were integrated: the genre-based approach, content-based instruction, problem-based learning, and the case-study method. Data were collected through teacher observation notes, informal verbal feedback, and formative assessment tasks across ten course units. The findings reveal significant improvements in participants' speaking and writing skills, particularly in professionally relevant tasks. However, fossilized grammatical errors persisted throughout the course despite sustained instruction. The study offers a replicable and adaptable course design framework for ESP practitioners in the oil and gas industry, with particular relevance for Central Asia.

### **Keywords**

ESP, genre-based approach, case-study method, content-based instruction, problem-based learning, oil and gas industry, needs analysis.

## NEFTGAZ SOHASIDAGI MUTAXASSISLAR UCHUN ESP KURSIDA BIR NECHTA PEDAGOGIK YONDASHUVLARNI BIRLASHTIRISH: KURS DIZAYNI DOIRASI

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### **Annotatsiya**

Ingliz tili bilimi xalqaro muhitda faoliyat yurituvchi neftgaz sohasidagi mutaxassislar uchun tobora muhim ahamiyat kasb etmoqda, biroq ushbu o'quvchilar guruhi uchun ESP kurs dizayni Markaziy Osiyo tadqiqotlarida hali ham yetarlicha o'rganilmagan. Ushbu tadqiqot B1+ CEFR darajasidagi yetti bo'lim boshlig'i uchun ishlab chiqilgan va O'zbekNeftGazda (UNG) amalga oshirilgan ko'p yondashuvli integral ESP kursining dizayni va tatbiqini hujjatlashtiradi. To'rtta to'ldiruvchi yondashuv birlashtirildi: janrga asoslangan yondashuv, "content-based instruction", muammoga asoslangan ta'lim va "case-study" metodi. Ma'lumotlar o'n kurs bo'yicha o'qituvchi kuzatuv yozuvlari, norasmiy og'zaki fikr-mulohazalar va formativ baholash vazifalari orqali to'plandi. Natijalar ishtirokchilarning og'zaki va yozma ko'nikmalarida, xususan kasbiy vazifalar doirasida sezilarli yaxshilanishlarni ko'rsatdi. Biroq grammatik xatolar barqarorlashib qolgan va doimiy ta'limga qaramay davom etdi. Tadqiqot neftgaz sohasidagi ESP amaliyotchilari uchun takrorlanishi va moslashtirilishi mumkin bo'lgan kurs dizayni doirasini taqdim etadi va Markaziy Osiyo uchun alohida ahamiyat kasb etadi.

### **Kalit so'zlar**

maxsus maqsadlar uchun ingliz tili, janrga asoslangan yondashuv, "case-study" metodi, mazmun asosidagi ta'lim, muammoga asoslangan ta'lim, neftgaz sanoati, ehtiyojlar tahlili.

## **ИНТЕГРАЦИЯ МНОЖЕСТВА ПЕДАГОГИЧЕСКИХ ПОДХОДОВ В КУРСЕ АНГЛИЙСКОГО ЯЗЫКА ДЛЯ СПЕЦИАЛЬНЫХ ЦЕЛЕЙ ДЛЯ СПЕЦИАЛИСТОВ НЕФТЕГАЗОВОЙ ОТРАСЛИ: СТРУКТУРА ПРОЕКТИРОВАНИЯ КУРСА**

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### **Аннотация**

Владение английским языком приобретает всё большее значение для специалистов нефтегазовой отрасли, работающих в международном контексте, однако проектирование курсов ESP для данной группы обучающихся остаётся недостаточно изученным в центральноазиатских

исследованиях. В данном исследовании документируются разработка и реализация интегрированного многоподходного курса ESP в компании УзбекНефтеГаз (УНГ), созданного для семи руководителей отделов уровня B1+ по шкале CEFR. В курсе были интегрированы четыре взаимодополняющих подхода: жанровый подход, обучение на основе содержания, обучение на основе проблем и метод кейс-стади. Данные собирались с помощью наблюдений преподавателя, неформальной устной обратной связи и формативных заданий в рамках десяти учебных модулей. Результаты свидетельствуют о значительном улучшении навыков говорения и письма участников, особенно при выполнении профессионально значимых заданий. Тем не менее фоссилизированные грамматические ошибки сохранялись на протяжении всего курса, несмотря на систематическое обучение. Исследование предлагает воспроизводимую и адаптируемую структуру курса для преподавателей ESP в нефтегазовой отрасли, представляя особую ценность для Центральной Азии.

#### **Ключевые слова**

английский язык для специальных целей, жанровый подход, метод кейс-стади, обучение на основе содержания, обучение на основе проблем, нефтегазовая промышленность, анализ потребностей.

#### **INTRODUCTION**

The global expansion of the oil and gas industry has created a growing demand for English proficiency among energy sector professionals, particularly in contexts where international communication, technical documentation, and cross-cultural collaboration have become central to professional practice. In Uzbekistan, this demand has intensified as Uzbek NefteGaz (UNG), one of the largest state-owned energy companies in Central Asia, has expanded its engagement with international partners and multinational project teams. As a result, professionals across UNG's departments are increasingly required to communicate in English without interpreters, produce formal written documents, and participate in international training programs.

Despite this growing institutional need, ESP course design for Oil and Gas professionals in Central Asia remains underrepresented in academic literature. Learners in this context show a distinct sociolinguistic profile, where multilingual professionals operating across Uzbek, Russian, and English, whose needs differ considerably from those documented in mainstream ESP research. Furthermore, the communicative complexity of the oil and gas industry, which encompasses technical writing, formal oral communication, and genre-specific documentation,

makes it unlikely that any single pedagogical approach would adequately address the full range of learner needs.

In response to these gaps, this article presents a multi-approach ESP course design framework developed and implemented at UNG for seven departmental heads at the B1+ CEFR level. The course integrated four complementary approaches: the genre-based approach, content-based instruction (CBI), problem-based learning (PBL), and the case-study method - selected based on a triangulated needs analysis (Long, 2015; Woodrow, 2018). The central research question guiding this study is: How can these four approaches be effectively integrated within a single ESP course framework to develop the productive skills of Oil and Gas professionals in an Uzbek industrial context?

### LITERATURE REVIEW

#### *English for Specific Purposes and Professional Learners*

English for Specific Purposes (ESP) is broadly defined as an approach to language teaching in which all decisions regarding content and method are based on the learners' reasons for learning (Hutchinson & Waters, 1987). Unlike General English Programs (GEP), ESP courses are designed around the specific communicative needs of learners operating within a particular professional or academic domain. As Woodrow (2018) noted, "ESP learners tend to have more focused goals than EGP learners" (p. 6), which necessitates a needs-driven design process that places learner goals, workplace demands, and genre conventions at the center of course planning. In professional contexts such as the oil and gas industry, where communication involves highly specialized genres- technical protocols, incident reports, ESG policy documents, and formal correspondence- this focus becomes particularly critical.

#### *Genre-based approach in ESP writing instruction*

In professional ESP contexts, learners are expected to produce written texts that reflect the genre conventions of their workplace discourse communities - a skill that does not develop naturally without explicit instruction (Swales, 1990). The Genre-Based Approach (GBA) addresses this challenge by treating genres as socially situated communicative acts that reflect the values and conventions of specific professional contexts. By engaging with authentic genre models such as formal letters, incident reports, and policy summaries, oil and gas ESP learners develop an awareness of the structural and linguistic patterns required for their own professional written production. As Viana et al. (2019) argued, "using genres effectively shows a professional's ability to participate in discourse communities to which they belong" (p. 21), highlighting the direct relationship between genre competence and professional identity.

### *Content-based instruction*

According to Woodrow (2018), the basic principle of Content-based instruction (CBI) is that “by teaching content learners will be more motivated than by teaching which focuses solely on language” (p. 141). Two models are commonly associated with CBI (Woodrow, 2018): the sheltered model, which is content-driven while remaining linguistically accessible, and the adjunct model, which gives equal weight to both language and content goals (Met, 1999, as cited in Woodrow, 2018).

In oil and gas ESP, CBI integrates authentic industry content, such as upstream and downstream operations, drilling processes, and environmental regulations, with the language skills needed to discuss, analyze, and document it professionally.

### *Problem-based learning (PBL)*

Implementing PBL in our lessons enables my learners to work collaboratively to identify problems and solve them by offering realistic solutions. According to Woodrow (2018), “As a constructivist approach to teaching and learning, it shares values with the collaborative-learning and task-based-learning methodologies that are prevalent in EFL today” (p. 131). I believe that when PBL scenarios are grounded in authentic professional situations, such as pipeline safety incidents or environmental compliance challenges, oil and gas ESP learners are given purposeful opportunities to use English while strengthening the critical thinking and decision-making skills central to their workplace roles.

### *Case-study Approach*

Woodrow (2018) highlighted that this approach promotes learner autonomy and decision-making skills, both of which are essential for adult professional learners. Unlike PBL, where the primary focus is on collaboratively identifying and solving a problem, the Case-Study Method requires learners to evaluate the outcomes and implications of different courses of action, fostering deeper critical engagement with professionally relevant material.

Case study activities generally involve one of three tasks: proposing solutions to management problems, evaluating decisions already made, or appraising the progress of an ongoing situation (Daly, 2002, as cited in Woodrow, 2018).

## **METHODOLOGY**

This study employs a qualitative case study design situated within a practitioner research framework in which the researcher also designed and taught the course. This approach is widely used in applied linguistics and ESP research because it enables detailed, context-sensitive analysis of teaching and learning from an insider perspective (Woodrow, 2018). Rather than seeking general results, the study aims to document and evaluate the integration of multiple pedagogical

approaches in an ESP course for oil and gas professionals in Uzbekistan, offering practical insights for ESP practitioners in similar contexts.

#### *Context and participants*

Target learners are professionals who have been working in various departments of UNG, including ESG (Environmental, Social, and Governance) implementation, risk service project monitoring, technical regulation, law, oil production, and other related fields, with at least 5 years of experience. The group size is limited to 7. All learners are native Uzbek speakers, except for Mr. S, whose first language is Russian. In their professional domain, they mainly use Russian to communicate with colleagues, supervisors, and local business partners. They know English as a foreign language when interacting with international business partners.

Their overall English proficiency is at a B1+ level based on the Common European Framework of Reference for Languages (CEFR). They have been studying General English to improve their communicative proficiency, enabling them to communicate fluently with international business partners, participate in global conferences and projects, and write business-related documents in English without the need for interpreters. However, there are disparities between their assessed level and their real language performance. This may be due to their different levels of prior exposure to English.

The course was designed on the basis of triangulated needs analysis (Long, 2015; Woodrow, 2018), drawing on three primary sources of information: the learners themselves, HR managers at UNG, and authentic company documents. Learner needs, lacks, wants, and potential constraints were identified through informal interviews and language assessments conducted at the outset of the course. HR managers were consulted through semi-structured interviews to establish institutional expectations, department-specific communication requirements, and required genres. Authentic workplace materials, including technical protocols, internal reports, ESG policy documents, safety manuals, and formal correspondence, were collected and analyzed to identify the genre conventions, technical vocabulary, and discourse structures most relevant to participants' professional roles.

Based on the needs analysis findings, four complementary pedagogical approaches were selected: the genre-based approach, content-based instruction, problem-based learning, and the case-study method. These approaches were integrated within a single course framework designed to develop participants' productive skills in speaking and writing. The published ESP coursebook "Oil and Gas" by Lansford and Vallance (2011) served as the primary source material.

Data were collected through three primary instruments. First, teacher observation notes were recorded systematically three times a week over the course of study, documenting participant engagement, language performance, difficulties, and responses to different pedagogical approaches across sessions. These notes served as the primary source of qualitative data, providing a continuous record of the course implementation process.

Informal verbal feedback was regularly collected from participants during and after lessons and recorded in the teacher observation notes immediately following each session. Although no formal instrument was used, this process captured learners’ reactions to specific tasks, perceived difficulties, and preferences regarding different learning activities.

Third, formative assessment tasks including speaking and writing activities across ten course units provided evidence of participants’ developing productive skills as outlined in Table 1. These tasks included a range of genres and communicative situations, including process writing, incident reports, request forms, role-plays, oral presentations, and debates. Qualitative rather than numerical evaluations of task performance were recorded and used to inform ongoing lesson planning and materials adaptation.

Unit	Topic	Formative Assessment
1.	An International stry	Project: Finding out about some oil and gas employers e country and discussing it within the group
2.	Upstream	Writing assessment: Writing a process of oil exploration s
3.	Downstream	Speaking assessment: Explaining downstream ations to visitors
4.	Safety First	Speaking assessment: Role-play about safety
5.	Finding Oil and Gas	Writing assessment: Writing a report on recent oration
6.	Drilling	Speaking assessment: Giving safety advice
7.	Pipes and Pipelines	Writing assessment: Writing an incident report about ipeline issue
8.	Working Offshore	Writing assessment: Writing a request form
9.	Natural Gas	Speaking assessment: Describing an equipment
10.	Oil and The Environment	Speaking assessment: Debate about environmental lems and giving realistic solutions

Table 1. Formative Assessment

## RESULTS

Teacher observation notes show that there is a significant improvement in learners’ speaking skills over the three-month course, with the most notable improvement in Units 4 and 10. In the safety role-play, participants drew on their

professional knowledge to propose realistic solutions in English with growing confidence. By the environmental debate in Unit 10, participants demonstrated increased fluency, coherence, and more accurate use of industry-specific terminology in spontaneous spoken discourse. Informal verbal feedback gathered during and after lessons revealed a growing sense of confidence among participants in their professional use of English with international partners. This trend suggests that the authentic, workplace-based nature of PBL and Case-Study tasks played a key role in motivating meaningful language use throughout the course.

Participants' writing skills developed considerably throughout the course, with the most significant gains observed in Units 7 and 8, where genre-specific writing tasks required learners to produce formal professional documents in English. In Unit 7, where participants were required to write a formal incident report on a pipeline issue, teacher observation notes recorded clear progress in their ability to structure written texts in line with professional genre conventions. In comparison to earlier writing tasks, participants showed a stronger use of formal register, more precise use of technical vocabulary, and a greater ability to present information in a clear and organized manner. Similar progress was evident in Unit 8, where participants produced formal request forms that more accurately reflected the linguistic and structural conventions of authentic workplace documents.

These developments suggest that the Genre-Based Approach, supported by authentic UNG documents used as genre models, was effective in raising participants' awareness of the conventions governing professional written communication in the oil and gas industry.

Despite the overall improvements in both speaking and writing, a significant challenge persisted throughout the course. Fossilized grammatical errors, such as the omission of the third-person singular marker in present simple verbs, continued to appear consistently in participants' speaking across all units.

## **DISCUSSION**

The findings of this study suggest that integrating multiple pedagogical approaches within a single ESP course framework can effectively address the diverse communicative needs of oil and gas professionals. The improvements observed in both speaking and writing indicate that the combination of the Genre-Based Approach, CBI, PBL, and the Case-Study Method created a learning environment that was simultaneously authentic, content-rich, and communicatively purposeful. Viana et al. (2019) argued that professional ESP learners engage most effectively when learning tasks reflect the communicative demands of their workplace roles. This study's findings support that view.

Authentic tasks seemed to make a real difference to how participants engaged with English throughout the course. In earlier units, participants began drawing on their professional knowledge to suggest realistic solutions in English, and by Unit 10, they were taking part in a structured debate with noticeably greater confidence and fluency.

The Genre-Based Approach proved particularly effective in developing participants' writing skills, particularly in Units 7 and 8. By analyzing authentic UNG workplace documents as models, participants developed a clearer understanding of the structural and linguistic conventions expected in their professional context, supporting Viana et al.'s (2019) claim that "using genres effectively shows a professional's ability to participate in discourse communities to which they belong" (p. 21).

The findings suggest that the four approaches were most effective when used together rather than independently. Each approach contributed something distinct: the genre-based approach developed genre awareness and writing skills; CBI connected language learning to meaningful industry content; and PBL and the case-study method built confidence, critical thinking, and spoken communication. Together, they addressed the full range of participants' communicative needs in a way that no single approach could have achieved alone. This has practical implications for ESP practitioners in Central Asia, where learners typically combine strong professional knowledge with multilingual backgrounds and specific workplace communication needs that require a flexible, integrated pedagogical response.

## CONCLUSION

This study has demonstrated that integrating multiple pedagogical approaches within a single ESP course framework can effectively address the diverse communicative needs of oil and gas professionals. Rather than relying on any single method, the combination of the Genre-Based Approach, CBI, PBL, and the Case-Study Method allowed each approach to contribute something distinct while reinforcing the others, producing a learning environment that was authentic, content-rich, and communicatively purposeful.

The most significant gains were observed in speaking and writing. In speaking, participants grew increasingly confident in using English for professional purposes, with notable improvements evident in the safety role-play of Unit 4 and the environmental debate of Unit 10. In writing, the shift from informal texts to genre-appropriate professional documents in Units 7 and 8 demonstrated the effectiveness of explicit genre instruction supported by authentic workplace materials.

Despite these gains, the persistence of fossilized grammatical errors throughout the course highlights the limitations of communicative approaches in addressing deeply ingrained inaccuracies in adult learners. Future ESP courses in similar contexts would benefit from incorporating targeted form-focused instruction alongside communicative and content-based instruction.

The integrated framework presented in this study offers a practical and adaptable model for ESP practitioners working in the oil and gas industry, particularly in Central Asia, where a professional and regional context remains underrepresented in the ESP literature. Further research with larger participant groups and longer timeframes would nonetheless be worthwhile to validate and extend the findings of this study.

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