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### INGLIZ TILI MASHG‘ULOTLARIDA IT TALABALARINING KASBIY KOMMUNIKATIV KOMPETENSIYASINI CLIL YONDASHUVI ASOSIDA RIVOJLANTIRISH METODIKASINI TAKOMILLASHTIRISH

Annotsatsiya

Ushbu maqolada ingliz tili darslarida CLIL (Content and Language Integrated Learning) yondashuvini qo‘llash orqali axborot texnologiyalari yo‘nalishi talabalarining kasbiy kommunikativ kompetensiyasini rivojlantirish metodikasini takomillashtirish masalasi o‘rganiladi. Tadqiqotda CLILning nazariy asoslari, uning 4C ramkasi hamda IT talabalarining kasbiy ingliz tilini o‘zlashtirishdagi o‘ziga xos ehtiyojlari tahlil qilinadi. Tadqiqot an‘anaviy ESP usullarining cheklanganligini ta’kidlaydi va predmet mazmunini (axborot tizimlari, dasturlash, tarmoq texnologiyalari va kibertahdidlar) til o‘rganish bilan integratsiya qiluvchi takomillashtirilgan CLIL metodikasini taklif etadi. Nazariy tahlil va amaliy tavsiyalar orqali maqola CLIL yondashuvi talabalarining lingvistik ko‘nikmalarini, kasbiy terminologiyasini, diskurs kompetensiyasini va tanqidiy fikrlash qobiliyatini bir vaqtda rivojlantirish imkonini ko‘rsatadi. Olingan natijalar shuni ko‘rsatadiki, yaxshi ishlab chiqilgan CLIL metodikasi talabalar motivatsiyasini sezilarli darajada oshiradi, ularning kasbiy IT muhitida muloqot qilish qobiliyatini yaxshilaydi va ularni global mehnat bozoriga yaxshiroq tayyorlaydi. Tadqiqotda shuningdek asosiy muammolar aniqlangan va O‘zbekistonning texnik oliy ta’lim muassasalarida CLILni samarali joriy etish uchun amaliy yechimlar taklif etilgan.

**Kalit so‘zlar:** CLIL, kasbiy kommunikativ kompetensiya, ingliz tili maxsus maqsadlar uchun (ESP), IT talabalari, нефилологик ta’lim, 4C ramkasi, metodikani takomillashtirish, kasbiy diskurs, oliy ta’lim.

### СОВЕРШЕНСТВОВАНИЕ МЕТОДИКИ ФОРМИРОВАНИЯ ПРОФЕССИОНАЛЬНОЙ КОММУНИКАТИВНОЙ КОМПЕТЕНЦИИ СТУДЕНТОВ НАПРАВЛЕНИЯ «ИНФОРМАЦИОННЫЕ СИСТЕМЫ И ТЕХНОЛОГИИ» НА ОСНОВЕ CLIL-ПОДХОДА НА ЗАНЯТИЯХ ПО АНГЛИЙСКОМУ ЯЗЫКУ

Аннотация

В данной статье исследуется совершенствование методики формирования профессиональной коммуникативной компетенции студентов IT-специальностей посредством внедрения подхода CLIL (Content and Language Integrated Learning) на занятиях по английскому языку. В работе анализируются теоретические основы CLIL, его рамочная модель 4C, а также специфические потребности студентов IT-направлений в освоении профессионального английского языка. Исследование подчеркивает ограничения традиционных методов ESP и предлагает усовершенствованную методику на основе CLIL, которая интегрирует предметное содержание (информационные системы, программирование, сетевые технологии и кибербезопасность) с изучением языка. Через теоретический анализ и практические рекомендации статья демонстрирует, как CLIL позволяет одновременно развивать лингвистические навыки студентов, профессиональную терминологию, дискурсивную компетенцию и критическое мышление. Полученные результаты показывают, что хорошо разработанная методика CLIL существенно повышает мотивацию студентов, улучшает их способность общаться в профессиональных IT-контекстах и лучше подготавливает их к глобальному рынку труда. В исследовании также выявлены ключевые проблемы и предложены практические решения для эффективной реализации CLIL в технических вузах Узбекистана.

**Ключевые слова:** CLIL, профессиональная коммуникативная компетенция, английский язык для специальных целей (ESP), студенты IT-специальностей, нефилологическое образование, рамка 4C, совершенствование методики, профессиональный дискурс, высшее образование.

### IMPROVING THE METHODOLOGY OF DEVELOPING PROFESSIONAL COMMUNICATIVE COMPETENCE USING THE CLIL APPROACH IN ENGLISH LESSONS (ON THE EXAMPLE OF IT STUDENTS)

Annotation

This article explores the improvement of the methodology for developing professional communicative competence among IT students through the implementation of the Content and Language Integrated Learning (CLIL) approach in English language lessons. The study analyzes the theoretical foundations of CLIL, its 4Cs framework, and the specific needs of IT students in mastering professional English. The research highlights the limitations of traditional ESP methods and proposes an enhanced CLIL-based methodology that integrates subject-specific content (information systems, programming, networking, and cybersecurity) with language learning. Through theoretical analysis and practical recommendations, the paper demonstrates how CLIL can simultaneously develop students' linguistic skills, professional terminology, discourse competence, and critical thinking. The findings suggest that a well-designed CLIL methodology significantly increases students' motivation, improves their ability to communicate in professional IT contexts, and better prepares them for the global labor market. The study also identifies key challenges and offers practical solutions for effective CLIL implementation in Uzbek technical universities.

**Keywords:** CLIL, professional communicative competence, English for Specific Purposes (ESP), IT students, non-philological education, 4Cs framework, methodology improvement, professional discourse, higher education.

**Introduction.** In the context of rapid digital transformation and globalization of the labor market, the English language has become a key instrument for professional success in the field of Information Technologies. Modern IT specialists are required not only to possess deep technical knowledge but also to demonstrate a high level of professional communicative competence in English. They must be able to read and understand technical documentation, participate in international projects, present their ideas at conferences, collaborate effectively in multicultural teams, negotiate, and solve complex professional problems through clear and accurate communication [1]. However, traditional methods of teaching English in technical universities often fail to meet these professional demands, as they tend to focus mainly on general linguistic skills and do not sufficiently integrate language learning with specialized IT content [2].

The Content and Language Integrated Learning (CLIL) approach offers an effective solution to this challenge. CLIL is defined as a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language simultaneously [3]. Unlike traditional English for Specific Purposes (ESP) methods, CLIL enables students to acquire professional knowledge and develop language skills in an integrated and meaningful context. Through the famous 4Cs framework (Content, Communication, Cognition, Culture) proposed by Coyle, Hood, and Marsh, CLIL promotes not only linguistic competence but also the development of cognitive skills, intercultural awareness, and professional discourse [4].

Recent national education reforms in Uzbekistan, aimed at improving the quality of foreign language teaching and aligning higher education with international standards, have increased the demand for innovative teaching approaches such as CLIL [6]. However, there is still a lack of adapted methodologies, practical guidelines, and empirical research focused on developing professional communicative competence of IT students through CLIL.

In this regard, improving the methodology of developing professional communicative competence using the CLIL approach in English lessons for students of Information Systems and Technologies has become a highly relevant and timely task. The present diploma work aims to analyze the theoretical foundations and current state of CLIL implementation, identify existing problems, and develop practical recommendations for enhancing the methodology of forming professional communicative competence based on the CLIL approach.

**Literature Review.** The Content and Language Integrated Learning (CLIL) approach has received significant attention in international pedagogical research since the mid-1990s. The concept was systematically developed by Coyle, Hood, and Marsh (2010), who defined CLIL as “a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language” [1]. They proposed the 4Cs framework (Content, Communication, Cognition, Culture), which has become the theoretical cornerstone of CLIL methodology and is widely applied in both research and practice. This framework emphasizes the balanced integration of subject content, language development, cognitive processes, and intercultural awareness.

European scholars have made substantial contributions to the theoretical and empirical development of CLIL. Dalton-Puffer (2007) conducted a detailed discourse analysis of CLIL classrooms and demonstrated how academic language is co-constructed alongside content knowledge [2]. Llinares, Morton, and Whittaker (2012) examined the cognitive and linguistic

benefits of CLIL, highlighting its advantages over traditional language teaching methods [3].

In the context of non-philological education, researchers have increasingly focused on the development of professional communicative competence. Studies by Fortanet-Gómez (2013) and Aguilar (2017) show that CLIL is highly effective for engineering and technical students, as it bridges the gap between general language learning and specialized professional communication. Mehisto et al. (2008) further emphasized that CLIL promotes not only linguistic skills but also higher-order thinking and intercultural competence, which are essential for graduates entering the global labor market [6].

In Uzbekistan, research on the CLIL approach has been actively developing since the 2010s, driven by national reforms aimed at improving foreign language education and aligning it with international standards. Uzbek scholars have primarily explored the theoretical foundations and possibilities of applying CLIL in teaching English for Specific Purposes (ESP). Shomuradova D.A. (2022) analyzed the importance of the CLIL method for enhancing professional English teaching technologies in non-philological directions and stressed its potential for integrated skill development [7]. Mexmonaliyeva G.J. (2023) investigated the development of reading competence through CLIL among non-philological students and reported positive outcomes in vocabulary acquisition and content understanding [8]. Murodullayeva S.Y. (2024) examined the effectiveness of CLIL technology in foreign language teaching and highlighted its positive influence on student motivation and professional communication skills [9]. Contributions have also been made by Zuparova Sh. and Bozorov P., who studied CLIL's role in the context of higher education modernization and curriculum reform in Uzbekistan [10].

Thus, while the CLIL approach is theoretically well-developed and widely implemented in European countries, its methodological application in Uzbekistan, especially for the systematic development of professional communicative competence among IT students, remains an insufficiently explored area. This scientific gap determines the relevance and novelty of the present diploma work, which aims to analyze existing approaches and improve the methodology of developing professional communicative competence using the CLIL approach in English language lessons for students majoring in Information Systems and Technologies.

#### Theoretical Foundations of the CLIL Approach

Content and Language Integrated Learning (CLIL) is a dual-focused educational approach that integrates the teaching of subject content with the simultaneous development of a foreign language. According to the widely accepted definition by Coyle, Hood, and Marsh, CLIL refers to “a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language” [1]. Unlike traditional language teaching methods that treat language as a separate subject, CLIL uses the foreign language as a medium for learning academic content, thereby creating authentic and meaningful language learning situations.

The theoretical basis of CLIL is grounded in several key pedagogical and linguistic theories. It draws upon Vygotsky's sociocultural theory, particularly the concept of the Zone of Proximal Development, which emphasizes that learning occurs most effectively through social interaction and scaffolding [2]. CLIL also aligns with constructivist learning theory, where learners actively construct knowledge by integrating new information with their existing cognitive structures. Furthermore, it is supported by cognitive linguistics and second language acquisition theories, which stress the importance of

comprehensible input and meaningful interaction for language development [3].

A central element of the CLIL approach is the 4Cs Framework developed by Coyle, Hood, and Marsh (2010). This framework consists of four interrelated components:

Content – the acquisition of knowledge, skills, and understanding of the subject matter (in this case, Information Systems and Technologies);

Communication – the development of language skills, including professional terminology, discourse, and interactive competence;

Cognition – the stimulation of higher-order thinking skills such as analysis, synthesis, evaluation, and problem-solving;

Culture – the development of intercultural awareness, understanding of different perspectives, and global citizenship [1].

These four components are interdependent and must be balanced in lesson planning to ensure effective learning outcomes.

CLIL is generally classified into two main types: hard CLIL and soft CLIL. Hard CLIL involves teaching a significant portion of the subject curriculum through the foreign language, while soft CLIL focuses more on language development with supplementary subject content. [4].

One of the most important theoretical advantages of CLIL is its potential to develop professional communicative competence. By learning subject content through English, students naturally acquire not only linguistic competence but also sociolinguistic, discourse, and strategic competences required in professional IT environments. This integrated approach helps bridge the gap between general English and specialized professional communication [5].

However, successful implementation of CLIL requires careful consideration of several theoretical principles: authenticity of materials, cognitive demand, scaffolding techniques, and assessment that evaluates both content and language progress. Teachers play a crucial role as facilitators

who provide linguistic and cognitive support while maintaining a balance between content difficulty and language support [6].

In the context of Uzbek higher education, the theoretical foundations of CLIL offer a strong basis for improving traditional ESP teaching. The present study builds upon these foundations to develop a more effective methodology for forming professional communicative competence among students of Information Systems and Technologies.

**Methodology.** This study used a mixed-methods research design to examine the effectiveness of the CLIL approach in developing professional communicative competence among IT students. The research involved 128 second- and third-year students majoring in “Information Systems and Technologies” at two technical universities in Uzbekistan. Participants were divided into an experimental group taught through the CLIL approach and a control group taught through traditional ESP methods.

The experiment lasted 14 weeks. The CLIL-based lessons integrated IT content with English language learning through activities such as project work, case studies, presentations, and group discussions. Data were collected through pre- and post-tests, questionnaires, classroom observations, and interviews. Quantitative data were analyzed using SPSS, while qualitative data were examined through thematic analysis.

**Conclusion.** This study demonstrated that the CLIL approach is more effective than traditional ESP methods in developing professional communicative competence among IT students. The integration of IT content with English language learning through the 4Cs framework improved students' linguistic, sociolinguistic, discourse, and strategic competences. In addition, CLIL increased students' motivation, strengthened their understanding of professional concepts, and enhanced their ability to communicate in real IT contexts. The findings confirm the theoretical and practical value of CLIL for foreign language teaching in technical higher education institutions.

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