

# USING AUTHENTIC SUBJECT-SPECIFIC TEXTS TO DEVELOP CHEMISTRY STUDENTS' PROFESSIONAL COMMUNICATIVE COMPETENCE IN ENGLISH

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**Abstract.** This paper discusses the role of authentic subject-specific texts in developing the professional communicative competence of chemistry students learning English as a foreign language. The study highlights the effectiveness of integrating English for Specific Purposes (ESP) principles with chemistry-related authentic materials. A three-stage instructional model consisting of pre-reading, while-reading, and post-reading activities is proposed to improve students' linguistic, communicative, and professional skills. The findings indicate that authentic texts enhance students' motivation, professional vocabulary acquisition, reading comprehension, and communicative competence.

**Keywords:** *professional communicative competence, authentic texts, ESP, chemistry students, English language teaching, professional education, CEFR.*

## Introduction

In the context of globalization and internationalization of higher education, proficiency in English has become an essential requirement for future specialists. Modern chemistry professionals are expected to access scientific literature, participate in international projects, and communicate effectively with foreign colleagues. Therefore, developing students' professional communicative competence through English language instruction has become one of the key objectives of higher education.

Authentic subject-specific texts provide learners with real-life language input and expose them to professional terminology, discourse patterns, and communicative situations relevant to their future careers. Consequently, the integration of authentic chemistry-related materials into English language teaching contributes significantly to the formation of students' professional competence.

## Methodology

The proposed methodology is based on the principles of English for Specific Purposes (ESP) and communicative language teaching. Authentic texts were selected according to the following criteria:

- professional relevance;
- authenticity and reliability;
- terminological appropriateness;
- linguistic accessibility;
- scientific accuracy;
- educational value.

The instructional process consists of three stages:

### 1. Pre-reading Stage

At this stage, students activate their background knowledge, learn key terminology, predict the content of the text, and discuss the topic.

## 2. While-reading Stage

Students read authentic chemistry texts, identify key information, analyze scientific concepts, and complete comprehension tasks.

## 3. Post-reading Stage

Students participate in discussions, presentations, problem-solving activities, and written assignments based on the text content. This stage promotes the practical application of newly acquired language and professional knowledge.

## Results and Discussion

The use of authentic chemistry texts positively influences students' professional communicative competence. It enables learners to:

- expand professional vocabulary;
- improve reading comprehension skills;
- develop critical thinking abilities;
- enhance oral and written communication skills;
- increase motivation for learning English;
- establish connections between language learning and professional subjects.

Furthermore, integrating chemistry content with English language instruction helps students overcome semantic, structural, and functional difficulties frequently encountered in professional communication.

The implementation of authentic texts within an ESP framework also supports the achievement of CEFR B2-level competencies, particularly in reading and professional communication.

## Conclusion

The study demonstrates that authentic subject-specific texts are an effective tool for developing chemistry students' professional communicative competence in English. The integration of professional content and language instruction facilitates the acquisition of both linguistic and occupational skills. Therefore, the systematic use of authentic materials, combined with a structured pre-reading, while-reading, and post-reading approach, can significantly improve the quality of foreign language education in non-philological higher education institutions.

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