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# TEACHING PROFESSIONALLY ORIENTED READING AT TECHNICAL UNIVERSITIES

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The content of the paper was determined by the problem of teaching professionally oriented reading within the course of English for Specific Purposes. It also deals with the improvement of students' particular language skills. The development of professional communicative competence of engineering students is discussed. Different approaches to teaching reading are distinguished. The opportunities that technical students have today are observed. Realization of communicative approach in the course of teaching job-related reading is examined. Selection of authentic materials for reading is touched upon. Principles of selection, organization and presentation of materials are mentioned. Selection criteria are stated. Different types of reading are presented. The aim of each task is described. Motivation of engineering students is focused on. Reading goals and techniques are mentioned. The importance of professionally oriented reading is analyzed. Application of communicative approach to teaching reading of technical texts is presented. The paper outlines possible tasks for working with the text. Special attention is drawn to description of texts' comprehension. Possible tasks are described. Recommendations are specified. Importance of application of various methods and techniques in teacher's practice is grounded. Active implementation of modern technologies into the teaching English for Specific Purposes has been considered. The role of professionally oriented reading is determined.

**Keywords:** competence, international communication, teaching methods, professionally oriented reading, reading approach, technical texts, reading skills.

**Introduction**. Today English has undisputedly become the language of international communication. It is used in all spheres of people's life: in business, economics, science, technology, arts, etc. Consequently, every well-educated person should know it in order to communicate with the world. Mastering English has become a challenge and a task of vital importance for engineering students in Ukraine because it opens wide opportunities of self-development and professional growth. Great variety of information sources is available nowadays and graduates of technical universities will inevitably face the problem of intensive use of foreign literature in their professional activity. In order to get acquainted with, select, comprehend and use the information it is necessary to read it.

Reading is one of four language learning skills. As an element of communication, it means information transfer to individuals or groups of people which is presented in their perception and awareness and consists of collection, storage, analysis, processing and also its perception and awareness, linking and communication with people by the use of verbal means [2, p86]. That is why methods of teaching reading in a foreign language at higher educational establishments have been studied and developed by V. Bukhbinder, N. Voropaieva, Yu. Kovalova, H. Kravchuk, R. Martynova, O. Morozova, A. Operenko, O. Tarnopolskyi, N. Shevchenko many other scientists.

Young people in modern society rapidly get communicative skills in English for everyday communication, but professional communicative competence needs special and long-term training. That is why future scientists obtain profound up-to-date knowledge at the English language lessons in order to get acquainted with the results of the latest research and achievements in the field of science and technology. Reading in this case becomes the main way of getting information. So, reading is both the means and the goal of teaching foreign languages in technical universities.

The aim of this paper is to review some modern approaches in English teaching, to focus on necessity of professional reading skills for engineering students and evaluate the role of reading in teaching/learning process.

**Selection of Authentic Materials for Reading.** Foreign professionally oriented reading is inseparable part of professional activity for future specialists. In the curriculum of English for Specific Purposes special attention is paid to job-related texts. Such texts are the object of reading and discussion at the lessons, the basis for communicative situations and listening. They facilitate to enrich terminological vocabulary of future engineers.

Job-related text is first of all the means of making up and development of professional language knack [3, p. 17]. In practice, 1<sup>st</sup> and 2<sup>nd</sup> grade students are more interested in the up-to-date texts of popular science style. They readily learn expressions and terms and apply them in communicative tasks. Advanced students read preferably authentic texts of scientific style and learn terminology themselves in order to use their knowledge in scientific work.

Principles of selection, organization and presentation of materials are determined by certain tasks for each stage of teaching corresponding to methodical, psychological and linguistic requirements. Basic texts for teaching ESP are marshalled according to their topics and complicacy and are supplied with certain sets of tasks. At the same time the texts are to be accessible, consistent, informative and complete. The following criteria are utterly important for texts the selection of texts: conceptual (professional topicality of the texts is reflected in their concepts); didactic (texts comprise language facts and phenomena necessary for education); sensitive (content and lexis of the texts correspond to the abilities of students); cognitive (educational function of the texts corresponds to the cognitive needs of students).

**Reading Goals and Techniques.** Success in teaching ESP depends on many factors like teacher, students, facilities and, of course, approaches which the teacher uses. Approaches or methods are the ways to transfer knowledge to students, motivate and encourage them to learn. Approaches depend on the students' needs and teacher's creativity. In order to achieve learning goals, the teacher should choose appropriate approach. Reading approach will help students to solve their problems in reading, improve their knowledge and acquire an active skill which involves predicting, guessing, inferring, etc. There are different types of reading.

Skimming Reading is used to extract specific information, to identify the key ideas of a short text in a short period of time. This technique is helpful when it is necessary to find names or dates or to review charts or diagrams.

Scanning Reading is used to get the gist of the text. This technique means quick reading searching for specific words or phrases, for example, a word in a dictionary.

*Extensive Reading*, also called Free Voluntary Reading, motivates students to learn more words, grammar structures, improve their reading and writing skills. The texts are usually longer, neither difficult nor easy and suit to students' abilities and tastes.

*Intensive Reading* is reading in detail of rather short texts with searching for certain piece of information. This technique has specific aims and tasks, for example, to put events mentioned in the text into chronological order.

Reading approach undoubtedly has both benefits and weaknesses, but it works well when it is applied in class along with other methods and techniques to develop student's intellectual capabilities, to motivate them read and analyze texts, to make the teaching process more efficient and successful.

Reading in a foreign language should be the manner of getting information with its further application in professional activity, in other words, it should create subject oriented competence that involves general culture of a specialist, student's knowledge in particular branch of science and background knowledge of a student [1, p. 326].

Considering claims of modern society to the development of professional communicative competence of engineering students, application of different methods and techniques is becoming more and more urgent. Among the forms of teaching professionally oriented reading communicative approach is preferred because it is supposed as conscious approach to learning. The following activities, designed to comprehend the text "Voltage Transformers", represent application of this approach.

- 1. In order to determine basic knowledge of students, to warm up the group, to prepare for reading the text, it is possible to discuss the questions: What types of transformers do you know? What are they used for? When is it necessary to reduce the voltage for measuring purposes?
- 2. To introduce new lexis, it might be helpful to define the new terms, which encourages students to guess. A helpful task is to match the terms with their functions:

statents to guess. It helpful task is to match the terms with their functions.			
Voltage transformer	is used for the transformation of current at a high voltage into a		
	proportionate current at a low voltage with respect to earth potential.		
Current transformer	is used in the transmission of electricity for switching		
Switchgear	is used for transformation of voltage from one value to another, usually a		
	lower one.		

- 3. Familiar and international words are worth revising (for example, electromagnet, instrument, potential, terminal, etc.)
- 4. It is necessary to translate some collocations that play key part for understanding of the text. To diminish difficulties, translation matching tasks are recommended. For example, it can be proposed to make expressions which are translated as given.

Alternating- current	transformer	Обмотка низької напруги
High-voltage	carcase	Площа перерізу
Fine-gauge	system	Трансформатор відкритого типу
Low-voltage	core	3-стиржневе осердя
Open-type	circuit	Ізоляція між витками
Core-type	area	Коло змінного струму
Shell-type	winding	Тонкий дріт
Three-limbed	insulation	Система високої напруги

- 5. Cognitive activity while working with the text is realized in doing the tasks below.
- 1) Choose the right variant:

This disposition of the windings is advantageous

- a) in the case of open-type transformers;
- b) in the case of shell-type transformers.

2) Give synonyms or antonyms, for example, fill in the gaps in word combinations with the antonyms to the given adjectives using the following prefixes: un-, in-, ir-, dis-, ab-, im-.

sufficient,	space
necessary	part
normal,	stress
practicable,	insulation
possible	application
advantageous	position

6. It is possible to check understanding of the text by completing the sentences, filling the gaps, finishing the idea, etc.

To facilitate comprehension it is reasonable to put questions to certain parts, or answer the questions using the text. Question-answer strategy encourages students to focus on what they are to learn, helps them to think actively while reading, to review the content of the text and relate what they already know and what they have learnt. The teacher can also suggest students to draw up a plan or theses. Rendering is inefficient method of checking awareness of the text because most of information can be omitted. So, writing summary is more productive and lets the teacher estimate the depth of awareness. What motivates students to language learning is composition of so-called secondary texts aimed at communication, such as dialogues or interviews. And reading is turned from the goal into the manner of learning.

Activity aimed at detection of all possible support for understanding should be reasonably organized. Reasonable reading is the process in which the way to cope with difficulties is chosen considering their features. So, familiar grammar structure, known words are interpreted integrally, more complicated linguistic units are analyzed and, if there is no enough support in the context, are translated. Reader is considered to be advanced if he gets maximum information with minimum support [4, p. 33-36].

Though, application of communicative approach to teaching professionally oriented reading enables teachers to improve education process and gives students the tool for learning, turning language into the method of the world cognition [4].

As students become more advanced, they get more opportunities to understand and work with language in the context they find interesting and useful for their future profession, as a result, they become more motivated. Most of students admit that they use foreign journals to prepare for writing Bachelor's and Master's theses. They also read publications in English to get ready with essays, to write scientific articles and prepare reports. This means that one of the most demanded kinds of reading is reference reading. In the process of teaching reference reading the most important aspect is the text content understanding of which depends on the ability of students to find lexical and grammar structures they already know.

Considering that ESP syllabus comprises topics, closely connected with professional learning, like "Principles of Operation, 'Current Transformers", "Voltage Transformers", 'DC Motors', 'AC Generators', reading and discussing of authentic texts facilitates interest of engineering students to language learning, enriches their job-oriented knowledge about the principles of mechanics, generation and transmission of electric power, power stations, motors' and generators' operation, etc. Moreover, such work improves not only reading but also writing and speaking skills.

**Conclusions.** To sum up, we can infer that teaching professionally oriented reading at technical universities is one of the main goals of teaching English for Specific Purposes. One of the main problems the teachers solve today is to develop professional communicative competence of engineering students in order to train them for scientific practice and job-related functions. Opportunities for professional growth and self-development of young specialists are noted in the paper.

Special attention is drawn to selection, organization and presentation of materials for reading. Importance of different methods and approaches application in teaching practice to improve educational process is outlined. Use of appropriate authentic texts and work up of tasks, considering the background knowledge, skills and language level of students are understood as key tasks for ESP teachers. The role of job-related reading as the manner of getting information that integrates subject matter, content for teaching of relevant skills and motivation is determined. Possible tasks and their description are presented. Different kinds of reading are observed. The importance of professionally oriented reading for teaching ESP is obvious as engineering students acquire necessary communicative skills and profound knowledge of the subject and as a result get ready to participate in international conferences, to write scientific articles, to prepare Bachelor's and Master's theses, to share the results of their research work in a foreign language.

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### В. В. Чмель. Обучение профессионально-ориентированному чтению в технических університетах.

В статье рассматриваются различные методы и подходы к обучению иноязычному чтению. Формирование коммуникативной компетенции у студентов инженерных специальностей определяются как приоритетные в век интенсивного укрепления международных связей в области науки и техники. Также анализируется использование различных видов чтения на занятиях по английскому языку и их влияние на формирование профессиональной коммуникативной компетенции у будущих специалистов. Кроме того, в статье определяется роль преподавателя при отборе, организации и презентации аутентичных материалов для обучения студентов профессионально-ориентированному чтению. Определяются критерии отбора материалов. Особое внимание уделяется целям и техникам работы с текстами. Детально описываются этапы работы. Приводятся примеры заданий к текстам. Обосновывается важность обучению профессионально-ориентированному чтению, которое способствует развитию коммуникативных навыков, приобретению глубоких знаний по предмету и применению их в будущей профессиональной деятельности.

**Ключевые слова:** коммуникативный подход, компетенция, профессионально-ориентированное чтение, технические тексты, навыки чтения, методы обучения.

В. В. Чмель. Навчання професійно-орієнтованому читанню в технічних університетах. У статті розглядаються різні методи та підходи до навчання іншомовному читанню, необхідність формування професійної комунікативної компетентності у студентів інженерних спеціальностей. Комунікативний підхід визначається як пріоритетний у навчанні читання англійською мовою в період стрімкого розвитку міжнародного співробітництва в галузі науки і техніки. Визначається роль викладача при підборі, організації та презентації автентичних матеріалів та розробці вправ до іншомовних технічних текстів. Зазначаються критерії підбору матеріалів. Визначаються цілі та техніки роботи з матеріалами. Розглядаються різні види читання та їхні цілі. Надаються зразки завдань, рекомендованих для використання під час роботи з професійно-орієнтованими текстами. Також обгрунтовуються важливість навчання професійно-орієнтованому читанню, яке сприяє розвитку комунікативних навичок, поглибленню знань з предмету та активному застосуванню набутих вмінь майбутніми фахівцями.

**Ключові слова:**компетенція, комунікативний підхід, міжнародне спілкування, професійно-орієнтоване читання, методи навчання, технічні тексти, навички читання.