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TEACHING ENGLISH SUBJECT FIELD VOCABULARY IN THE COURSE OF ESP

The article is devoted to teaching subject field vocabulary in the course of English for Specific Purposes (ESP). Taking into account the current educational standards, specific field vocabulary is not only an indicator of a specialist's professional competence. Due to the integration of national economies and the need to master the tools of professional communication within international, setting, the knowledge of terminology facilitates access to new ideas and achievements in the spheres of professional activity. Teaching ESP in technical universities is not only focused on the development of language skills (reading, listening, speaking, writing), but also mastering the subject field vocabulary of the specific field as well. The purpose of the publication is to promote effective professional communication in the educational process through the acquisition of subject field vocabulary. For that purpose, it is presented the author's lesson structure with recommendations for further application. At the same time, it should draw attention on functioning of the subject field vocabulary in the Ukrainian setting and make effort towards finding of the proper Ukrainian equivalents of specific English terms as well as compiling of the field glossaries and digital terminology databases. Teaching specific vocabulary at higher education is an important motivation factor. Mastering a foreign language and specific field knowledge with subject vocabulary contribute to the professional competence of students on the whole and make them ready for participating in international cooperation and partnerships in the globalized world.

Keywords: teaching English for Specific Purposes (ESP), professional language skills, subject field vocabulary, science students majoring in engineering specialties.

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ВИКЛАДАННЯ ФАХОВОЇ ТЕРМІНОЛЕКСИКИ У ПРОЦЕСІ НАВЧАННЯ ІНОЗЕМНОЇ МОВИ ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ

Статтю присвячено викладанню фахової лексики у процесі навчання іноземної мови спеціального призначення (ESP). Беручи до уваги сучасні освітні стандарти, професійна термінологія є не тільки показником галузевої компетенції фахівця. З огляду на інтегрованість національних економік і потреби оволодіння інструментами міжнародної фахової комунікації, галузева термінологія полегшує доступ до нових ідей і здобутків у сферах професійної діяльності. Специфікою викладання іноземної мови за фахом у технічних вишах є не лише розвиток мовленнєвих навиків (читання, аудіювання, мовлення, письмо), але й опанування фахової лексики певної галузі. Мета публікації: сприяти запровадженню ефективної фахової комунікації у навчальному процесі шляхом засвоєння галузевої термінології. Для цього представлена власна структура вивчення фахової лексики та рекомендації щодо подальшого застосування і поширення функціонування галузевої термінології. Водночас необхідно акцентувати увагу на віднайдення питомих українських відповідників англійських галузевих термінів; укладання галузевих термінологічних словників, запровадження електронних термінологічних баз. Вивчення фахової термінології поєднує галузевий і мовний компоненти. Галузевий аспект для технічних вишів є важливим мотиваційним чинником у вивченні іноземної мови спеціального призначення. Оволодіння іноземною мовою (мовний аспект) та знання фахової термінології мають посприяти професійній компетентності студентів загалом та участі у міжнародному співробітництві у сучасному глобалізованому світі.

Ключові слова: англійська мова за професійним спрямуванням, фахові мовні навички, засвоєння фахової лексики, студенти технічних спеціальностей.

Teaching English for specific purpose (ESP) has become a topical issue due to the new requirements of modern educational standards. The current approach in higher education requires students to master specific vocabulary at global and national level in order to advance professionally in their subject field. Learning specific vocabulary is a significant indicator of thorough professional knowledge for all students majoring in both science and humanity fields. The knowledge of specific vocabulary serves an indicator of the professional competence of a specialist in the framework of integration of national economies and is one of communication tools for giving an access to new ideas and current achievements in a sphere of career activity.

The purpose of the publication is to promote effective professional communication in the educational process through the acquisition of subject field vocabulary by sharing ideas in teaching ESP for technical students. English as the *lingua franca* in today's globalized world is a dominant medium of scientific and technological communication especially when national economies have become more integrated and it has become a necessity to 'have easy access to new ideas and developments in the areas of professional activity' (Grosse & Voght, 1991, 184).

Studying specific vocabulary and terminology is considered to be one of the fundamental components in the course of teaching ESP for engineering students. It will help to improve the students' proficiency in English, to require skills of professional language, and to consolidate their industry knowledge.

The English subject field vocabulary tends to be an advanced tool for holding a constructive professional dialogue within the global scale and facilitating cooperation for providing effective management systems in academic, science and business settings. There have been growing demands to develop and teach English subject field vocabulary within the Ukrainian academic milieu in

order to join and develop a working professional partnership both between states and between affiliated academic, educational and research institutions. It goes without saying that profound subject field knowledge and experience is needed to perform specifically-oriented tasks within a subject field, be professionally competent within the affiliated associations and be capable of adapting partners' achievements as well as good language skills for the present day. Therefore, mastering professional, technical English for students, in particular of engineering specialties, could be seen as a passport to their own career growth and even to the economic and business success of the related sector in the near future.

Within teaching ESP course for engineering students, we are going to consider a set of conventional eight steps in mastering English subject field vocabulary, in particular of logging specialty. Among the typical teaching methods, we use mostly interactive (group/team work) and integrative (cognitive perception and integrated learning) ones.

We suggest considering a 'test-teach-test' approach to teaching specific subject field items from the topic of **Tree Felling** for graduate-level and master's degree students of forest mechanization specialties (Lentiakov & Myklash, 2007, 5-6). The students are expected to become familiar with the topics in their native language. They are forced to learn the English equivalents to terms in their native language and therefore strengthen their English knowledge of the industry terms.

The structure of the presentation of class material and lesson are as follows:

Warm up activity. Introduction to the lesson topic. What do you know about 'tree felling'? In what cases do we need to cut down trees? Do you know how to make a tree fall safely?

Step 1. Reading the text. Students read the '**Tree Felling**' text individually. They are expected to understand separately the whole context and meaning of specific terms. The teacher does not explain the meaning of the words. The special vocabulary units, which should be given special attention, are highlighted in italics.

Tree Felling



The feller is creating a notch.

Felling a tree requires at least two different cuts, the *face cut* and the *back cut*. *Face cut* is a removal of wood on the face of the tree. It should be angled sufficiently to allow a wide mouthed face opening and assist in the felling direction. Face cut is created by making a *top* and *bottom cut*. The *top cut* is the first of two cuts that result in a V-shaped section cut or *notch*. The notch is made on the side of the tree that you want it to fall. The top and the bottom cut make a notch.

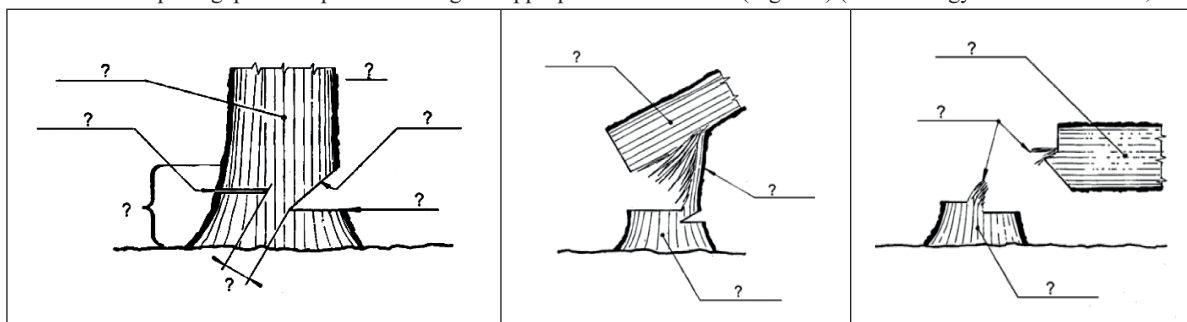
Different face cut techniques are used to cut the notch, but they usually concentrate on the basic 30 to 60 degree face cut with a flat bottom. Determining how a tree should be cut may be a matter of professional experience. The bottom or *undercut* is the second of two cuts and is made by removing a V-shaped section of the trunk or *bole*. A skillfully placed undercut will provide a very accurate dropping of the tree. Any tree over 6 inches in diameter requires an undercut. Remember, a proper undercut is supposed to dictate the direction of the fall for the tree.

The *back cut* is the third and final cut and is made on the opposite side of the tree from the face notch in order that the tree will fall in the direction of the undercut. A narrow strip of wood left between the undercut and the back cut – called a 'holding bridge' or *hinge* – will prevent the tree from rotating on the stump as it falls. The back cut is designed to release the wood that holds the tree from falling over the undercut. The purpose of the hinge is to provide sufficient wood to hold the tree to the stump during the majority of the tree's fall, and to guide the tree's fall in the intended direction. The size of the hinge is important for preventing splitting, fiber pull, *barber's chairs*, fiber torn beard or *sloven*, and other undesirable or unsafe actions. If the hinge wood is insufficient and undercut is too deep, the tree can slip off the stump and fall in any direction. If the undercut is too deep and the back cut is too low, the tree doesn't fall in the intended direction.

The tree must be cut at the lowest point in order to reduce the height of the stump.

In most countries the stump is sometimes cut from 12 up to 18 inches and even from 16 up to 24 inches from the ground because of the great size of trees. Care must be taken to avoid damaging young trees when selecting the place to drop the tree.

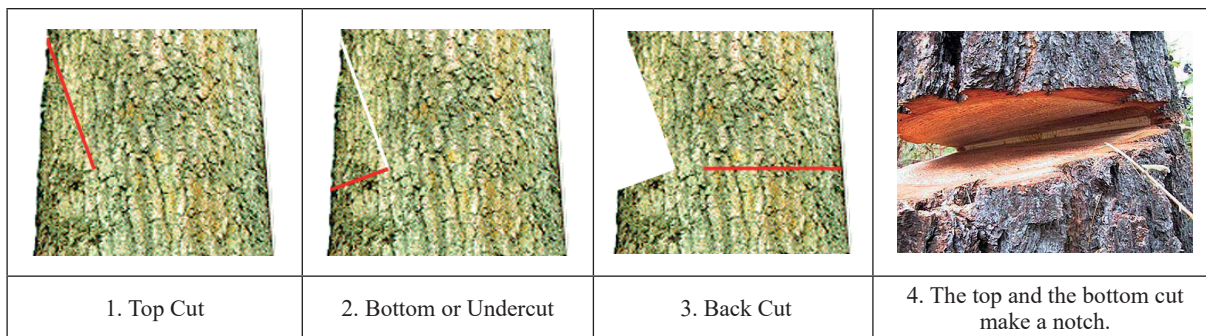
Step 2. Understanding the meaning. Students try to conceive the meaning of the relevant notions from the text. They choose the words and fill up the gaps in the picture finding the appropriate lexical units (Fig. 1-3) (Terminology of Forest Science, 1983).



Figures 1.1-1.3

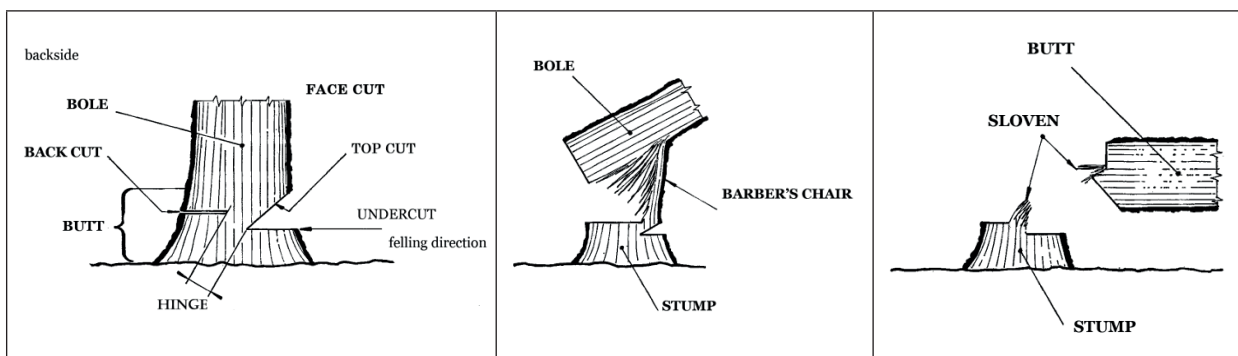
Step 3. Checking. The teacher checks students' performance at this stage. In order to see the meaning of the main strategic cuts, the set of images (Fig. 2) is displayed on the screen.

The safe felling of a tree includes making three precise and strategic cuts.



Then Figure 3 is projected on the wall and students are able to correct their answers.

In order to check and correct students' answers, the picture (Fig. 3) is projected on the screen (Terminology of Forest Science, 1983).



Figures 3.1-3.3

The terms are shown with the projector on the screen before drilling.

Step 4. Drilling exercises. Students now know the Ukrainian and English equivalents and then move to drilling exercises that allow learners to focus on pronunciation and practice pronunciation for new lexical items. Drilling is used after new specific vocabulary has been introduced and understood. Repetition drills can be done silently, chorally (as a whole class or in groups) and individually to help learn specific language words.

Step 5. Learning equivalents. In order to command specific language, it is of key importance to know the direct Ukrainian equivalents of terms. Students are asked to do matching exercises for the English specific terms with their Ukrainian equivalents. This kind of assignment encourages students to learn terms better. The model of the exercises is presented below.

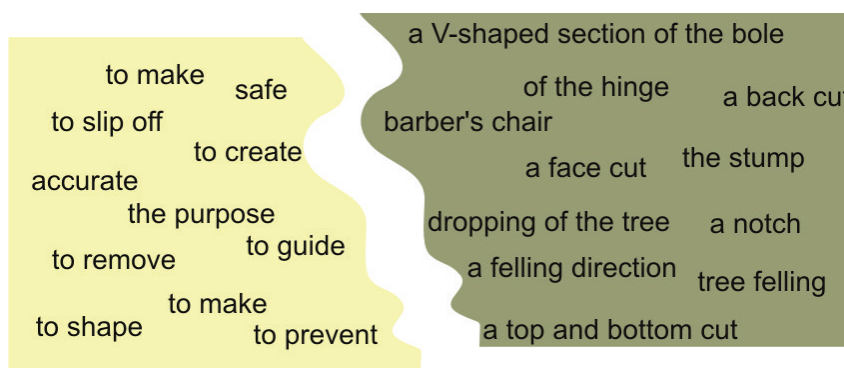
Match the English compound words with the Ukrainian equivalents according to the pattern

back cut	звалювання дерева
top cut	напря́м звалювання
V-shaped	передній рі́з
bole (trunk)	великий відщеп на пні зваленого дерева
stump	підпил, підруб
felling direction	верхній рі́з
undercut	клин
hinge	задній рі́з
notch	нижній рі́з
tree felling	стовбу́р
barber's chair	клиновидний
top cut	недопил
bottom cut	пень

The correct answers

back cut	задній рі́з
barber's chair	великий відщеп на пні зваленого дерева
bole (trunk)	стовбу́р
bottom cut	нижній рі́з
felling direction	напря́м звалювання
hinge	недопил
notch	клин
stump	пень
top cut	верхній рі́з
tree felling	звалювання дерева
undercut	підпил, підруб
V-shaped	клиновидний

Step 6. Collocation exercises. Find appropriate collocations to form terminological units based on a group of words and make up sentences with them in a specific context.



The correct answers and the functional use of the vocabulary are presented below.

accurate dropping of the tree, safe tree felling, slip off the stump, the purpose of the hinge, to create a back cut, to guide a felling direction, to make a face cut, to make a top and bottom cut, to prevent barber's chair, to remove a V-shaped section of the bole, to shape a notch.

1. **Accurate dropping of the tree** ensures avoiding damage to young trees and selecting a definite place to drop the tree.
2. To provide **safe tree felling**, it is necessary to know the tree felling procedure and cutting technique very well and have a bit of practice.
3. **Face cut** is commonly created by **making a top and bottom cut** for thick trees.
4. In order **to create a notch**, a tree feller should make a top and bottom cut.
5. If we want the tree to fall in a certain direction, we need **to remove a V-shaped section of the bole**.
6. Tree feller usually **makes a back cut** on the opposite side of the tree from the face notch.
7. The **purpose of the hinge** is **to guide a felling direction**.
8. The size of the hinge is considered to be enormously important **to prevent** splitting, fiber pull, **barber's chairs**, and other undesirable or unsafe actions.
9. Tree can **slip off the stump** and fall in an undesirable direction if the hinge wood is insufficient and the undercut is too deep.

Step 7. Controlled practice. Students are asked to do the next assignment of filling in the necessary words according to the content of the text.

Tree Felling

Felling a tree requires at least two different cuts, the _____¹ and the _____². Face cut is the removal of wood on the face of the tree. It should be angled sufficiently to allow a wide mouthed face opening and assist in the felling direction. Face cut is created by making a _____³ and _____⁴. The top cut is the first of two cuts that result in a V-shaped section cut or _____⁵. The notch is made on the side of the tree that you want it to fall towards. The top and the bottom cuts make a notch.

Different face cut techniques are used to cut the notch, but they usually concentrate on the basic 30 to 60 degree face cut with a flat bottom. Determining how a tree should be cut may be a matter of professional experience. The bottom or _____⁶ is the second of two cuts and is made by removing a V-shaped section of the trunk or _____⁷. A skillfully placed undercut will provide a very accurate dropping of the tree. Any tree over 6 inches in diameter requires an undercut. Remember, a proper undercut is supposed to dictate the direction of the fall for the tree.

The _____⁸ is the third and final cut and is made on the opposite side of the tree from the face notch in order that the tree will fall in the direction of the undercut. A narrow strip of wood left between the undercut and the back cut – this is called the 'holding bridge' or _____⁹ – will prevent the tree from rotating on the stump as it falls. The back cut is designed to release the wood that holds the tree from falling over the undercut. The purpose of the hinge is to provide sufficient wood to hold the tree to the stump during the majority of the tree's fall, and to guide the tree's fall in the intended direction. The size of the hinge is important for preventing splitting, _____¹⁰ fiber pull, _____¹⁰, fiber torn beard or sloven, and other undesirable or unsafe actions. If the hinge wood is insufficient and the undercut is too deep, the tree can slip off the stump and fall in any direction. If the undercut is too deep and the back cut is too low, the tree doesn't fall in the intended direction.

The tree must be cut at the lowest point in order to reduce the height of the stump. In most countries the stump is sometimes cut from 12 up to 18 inches and even from 16 up to 24 inches from the ground because of the great size of the trees. Care must be taken to avoid damage to young trees when selecting the place to drop the tree.

Keys: 1. *face cut*; 2. *back cut*; 3. *top cut*; 4. *bottom cut*; 5. *notch*; 6. *undercut*; 7. *bole*; 8. *back cut*; 9. *hinge*; 10. *barber's chairs*.

Step 8. Free Practice Production. Tree Felling Contest (Group work).

Assignment: Students are asked to prepare workshop materials to train junior tree fellers who are going to take part in annual all-Ukrainian and international contests of tree fellers. Every group of students should emphasize felling safety regulations, speed and tree felling accuracy.

The subject field aspect is actually an important motivational factor in studying English for specific purposes for graduate science students who are familiar with the subject in their native language. The acquisition of language and professional language in particular, is not a linear process but an incremental one. Students found the field topics meaningful, worthy of their interest, and the level of useful participation was high (Beardsmore & Lee, 1973, 344-345). Authentic and field-oriented materials relating to students' profiles should be used as well as pictures and figures for visualizing, better understanding, and self-checking. The methods mentioned above are quite easy for acquiring English vocabulary with the practice of a set of tasks. The assignments are intended to facilitate students in effective learning of professional English and simultaneously consolidate their subject field knowledge in a practical way. The approach could also be used for other technical specialties. The assignments should be adjusted for specific vocabulary and the students' level of language to study science notions, concepts, technological process or pieces of equipment and machinery.

Conclusion. The subject field vocabulary is reflected as the level of scientific knowledge and constitutes the basis of effective professional communication within the specific area of studies. Teaching the professional language in the course of EPS is one of the priorities in the educational process to all students, especially to engineering specialties. The effective training should be focused on the acquisition of general language skills, deepening the specialized knowledge and skills as well as provides the consolidation of all students' professional competences.

The pattern presented above can be an initial impetus to encourage finding and developing other effective tools and approaches in ESP teaching and learning. The specifically related assignments will depend on the students' level, subject area and focus on the professional language acquisition through doing set of exercises (matching concern understanding of the word/term meanings and definitions, filling the gaps, word use, multiple choice, collocations, etc). Various data of media resources available in the Internet can be used to stimulate the interest and activity of students, as well as facilitate the selection of educational material necessary for conducting classes. The efficiency of the assignments can be streamlined by using different visual tools and multimedia technologies.

Mastering the subject field vocabulary within the course of ESP constitutes professional competences of specialists and their potential capability to solve the urgent global problems within their career activity. All that proves the demand of giving the topicality of teaching subject field vocabulary a considerable role within higher education.

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