

# Propaedeutic Block of ESP Activities for Postgraduate Students in Environmental Science

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### Abstract

A set of ESP training activities is offered for beginners who have the basics of knowledge of another European language. Due to the comparison of ecological term systems of Russian, French and English obtained in the course of the previous research, the use of new forms of work were developed and implemented in the educational process (webinars, project methods, etc.) with postgraduate students engaged in scientific work in various fields of environmental knowledge. The fundamental for the proposed methodology is the "incomplete understanding of the text" approach to learning reading. In this regard, it is recommended to omit most of the linguistic phenomena of the text, focusing on the main goal: to teach to follow the development of the topic by reference words (figures, international vocabulary, pre-learned terms of ecology).

To facilitate learning of the special vocabulary the environmental terms are first identified by the teacher and pre-grouped into the following: research terms, means for conducting a discussion, for summarizing and evaluation. Students begin to understand the need for semantic analysis of the text.

For this course, the teacher specifically selects 1) material that highlights acute research, discovery or innovative technology; 2) additional texts, contrasting or developing ideas of the main text. One of the texts should be extremely simple, but contain terminology. A special type of work is the comparison of the forms of the same information in several languages, showing the need to adapt the presentation of a research when changing the addressee. A list of units necessary for retelling and evaluating the subject under discussion is attached separately. The teacher prepares a list of Internet sites on various positions of the discussed problem.

In this paper only those types of work of the teacher and students are described that are specifically directed at the environmental themes, it is designed to help the student as much as possible to overcome the language barrier, establish inter-language links, develop a language conjecture, provide tools for a structured answer to questions, retell a scientific article, and correspond with colleagues.

Keywords: beginner-level, environmental terminology, incomplete understanding, postgraduate students, ESP

#### 1. Introduction

According to the requirements of postgraduate research student regulations at Russian universities, postgraduate students must acquire the skills of oral communication in English on the issues of their chosen specialty and pass, at the end of the first year, the exam by preparing a package of written materials: translation from English, a bilingual glossary of terms in the chosen direction, an article written in English on the results of their research. Most graduate students speak English at a level sufficient to master the material to be learnt, but there are also those who learnt German, French, Spanish, there are those who did not take foreign language studies as a serious matter, as a part of the general professional competence, there are also foreign students who also did not study English. For such cases a specially organized propaedeutic unit using ICT has been elaborated.

The use of new forms of work were developed and implemented in the educational process (webinars, project methods, etc.) with postgraduate students engaged in scientific work in various fields of environmental knowledge.

#### 2. Methods and Materials

Term systems of Russian, French and English languages in the domain of environmental research have been compared in the course of the previous research [1; 2]. This scientific field is being enriched by constant appearance of new units [3] demanding astute translation to find a good equivalent.

Both the teacher and the students are subject of the process of learning with methods designed to help the student to overcome the language barrier, establish inter-language links, develop a language

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conjecture, to facilitate learning of the special vocabulary, understanding and oral production [4]. The fundamental for the proposed methodology is the "incomplete understanding of the text" approach. In this regard, it is recommended to omit most of the linguistic phenomena of the text, focusing on the main goal: to teach to find data by reference words: figures, international vocabulary, pre-learned terms of ecology.

## 3. Results

A set of ESP training activities is offered for beginners who have the basics of knowledge of another European language.

During the academic year the teacher constantly updates the learning kit, namely:

1) The teacher prepares a list of Internet sites in advance including a set of video on various positions of the issue to be discussed. The selection of sites for this module is done by the following criteria: target category of students; a relatively narrow thematic focus, varying from year to year, depending on the theses themes of graduate students of this year of study; simple and clear interface structure; simplicity of the algorithm of access to the content; quality of information, presentation format; free access to content, online accessibility.

Note that the most convenient sites in terms of clarity of presentation of environmental problems are the sites of Canada.

Listening is often carried out as homework, so giving the link is enough.

2) The teacher makes a preliminary analysis of selected texts and he/she structures the content shortening, sometimes adapting the original text. The terminology is put in bold and the translation is provided in parentheses directly in the text in the event. The grammatical and lexical units specific to the scientific text as a style demand the development of exercises for word formation, synonymy, etc., including work with explanatory dictionaries, online bilingual dictionaries (with an explanation of how the dictionary article of the Multitran dictionary is formed, for instance), as well as independent search for equivalents of translation into the native language through the sites of translator forums with an emphasis on lacunae, the identification of presupposition associated with the culture of the expert community of ecologists.

3) The teacher analyses online proficiency tests to compile a glossary of units describing postgraduate education as a special activity. Analytical materials are prepared for business communication, basic formulas for requesting an internship, exchange of experience, organization of participation in an international conference, etc.

4) The teacher constantly follows the news of science and introduces impressive materials about new discoveries in the natural sciences, sociology, psychology (for example, the results of the Rosetta project, the investigation of the regeneration of the brain by the ctenophore, the survey of 8 million of adolescents in the USA). The emphasis is put on the method of conducting experimental studies.

5) If the texts do not contain enough introductory sentences necessary for retelling and evaluating the subject, the list of such units is attached separately providing tools for a structured answer to questions, summarizing of a scientific article, and corresponding with colleagues.

The learning kit of the propaedeutic block includes:

- One extremely simple text containing terms (composed by the teacher if not found);
- A short text that highlights acute research, discovery or innovative technology;
- Additional texts, contrasting or developing ideas of the main text;
- Texts with the same information in several languages to be compared showing the need to adapt the presentation of a research when changing the addressee;
- A list of units necessary for retelling;
- A list of evaluating units;
- A list of Internet sites on various positions of the discussed problem;
- Links for visual information.

#### 4. Discussion

Over the past two years, the dominant forms of work in the classroom with graduate students are the activities based on mobile phones and other Internet-connected devices. Note that some researchers [5; 6] have already pointed out that the use of these devices are seriously changing the language of learning, forms of home tasks, ways of giving and receiving information, instant checking of new phenomena, interpretation of the unknown, linguistic work, phonetic help when meeting a new word. The first task of a beginner reading an English text is to glide through the text, find the reference words pre-selected by the teacher, attached as a list and translated before reading the text. This list is the



creative work of each teacher, its result depends on his/her opinion about their need in this case. These words are highlighted in the text in boldface, they are written out and grouped according to the types of work: sound-letter correspondences, word formation, comparison degrees, homonymy, correct verbs of the text (denoting the activity of scientists, technological processes), environmental terms and phrases, irregular verbs (three forms), introductory words.

Primary pronunciation skills, and text reading skills (the formation of mechanisms of comprehension, the development of mechanical memory, probabilistic prediction) are formed on the basis of two texts that seem to be devoted to describing a house, but are filled with ecological content, and humor. Both retell the story of "The Magic Geranium" by Jane Thayer (real name Catherine Woolley), a US legend of literature for children, on how to hint at the need to bring their house and garden in order, without hurting the vanity of the slovenly mistress and with the idea of being tactful in environmental education. The first text is an adaptation by Russian teachers [7], the second text was written by an older American in 2011 (the URL no longer exists, we send it by e-mail to each student) which exposes the edification: "A disaster driven life is miserable and depressing. A magic geranium sort of life is exciting, always looking for something good to come. It's an intentional choice we make: geranium or disaster? Which will it be?". This is a metaphor for educating the ecological contents.

Students begin to understand the need for semantic analysis of the text using applications. As it is really easy to make a video with an iPhone the control tasks we propose to students after the propaedeutic block of ESP activities have this option demanding a group work and motivating adult graduate student to join the learning environment again.

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