

ISMGE 2020**II International Scientific and Practical Conference "Individual and Society in the Modern Geopolitical Environment"****ENVIRONMENTAL ONLINE DISCOURSE IN DEVELOPING PROFESSIONAL FOREIGN LANGUAGE COMPETENCE OF ECOLOGY STUDENTS**

Elena Pavlova (a)*, Nailya Valeeva (b), Yulia Zakirova (b)
*Corresponding author

(a) Peoples' Friendship University of Russia (RUDN University), 6 Miklukho-Maklaya Street, Moscow, 117198, Russian Federation, pavlova-eb@rudn.ru

(b) Peoples' Friendship University of Russia (RUDN University), 6 Miklukho-Maklaya Street, Moscow, 117198, Russian Federation

Abstract

The paper considers environmental online discourse as an element of an effective learning environment which is necessary for building professional foreign language competence of ecology students with intermediate or higher proficiency level. Based on the fundamental principles of ESP, the paper describes didactic advantages of virtual environmental discourse in terms of accessibility, authenticity, lexical diversity of texts on environmental topics, and a wide range of language means. Environmental organizations' websites reflect current problems of science and practice and contribute to increasing cognitive motivation of students exposing them to emerging environmental challenges, as well as the latest technologies in the field of environmental protection and sustainable development. In addition, the websites are visually attractive and interactive, which fully meets the educational needs of modern students born and raised in the digital age. The authors reveal the didactic potential of environmental online discourse and offer an approximate set of exercises that solve practical problems of increasing students' motivation to read professionally-oriented texts, developing the ability to predict text content, updating students' knowledge, and overcoming language difficulties. The paper provides feedback from the students about ESP training using authentic professional texts selected from the content of the international environmental organizations' websites. The authors conclude that such websites can be used as a source of relevant educational materials.

2357-1330 © 2020 Published by European Publisher.

Keywords: Ecology Students, effective learning, environmental challenges, environmental online discourse, professional foreign language competence, proficiency level.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

Modern language education aims to develop communicative foreign language competencies in students and engage future professionals in a job-oriented global information context (Kostyukova & Morozova, 2011; Nigmatzyanova et al., 2019). Successful achievement of these goals involves the creation of a learning environment based on the implementation of ESP principles (Bowker & Pearson, 2002; Douglas, 2000; Hutchinson & Waters, 1982; Wegener, 2008) and, above all, the principle of authenticity (Torregrosa & Peñamaría, 2011). As known, the practice of using authentic texts in teaching ESP has its supporters and opponents. Many experts note that the amount of information in authentic texts outweighs the amount of learnable language. Adapted texts do not have this drawback. They help students focus only on language features and its functions (Bocanegra-Valle, 2010). However, we agree with Tomlinson (2014) that simplified texts cannot provide exposure to the language as it is typically used. That is why training texts should be taken from the real world and not created for teaching reasons. Such materials are particularly important to implement a communicative approach to language teaching as they immerse students in real language environment and reflect the students' needs (Torregrosa & Peñamaría, 2011).

2. Problem Statement

The Internet can be used as a source of relevant education materials which reflect the reality of professional communication. The experts indicate that authentic materials can be obtained from many different sources but there is a growing tendency to take them from the internet as teachers need to renew their materials constantly and to adapt them to the changing needs of students (Torregrosa & Peñamaría, 2011).

3. Research Questions

Environmental online discourse combines the didactic potential of media texts and the specific features of virtual discourse. The significance of the environmental online discourse in didactic terms is explained by its accessibility, authenticity, variety of language means, which in general contributes to the development of foreign language communicative competence of future environmental scientists.

In addition, such characteristics of environmental online discourse as hypertextuality, creolization, and interactivity provide additional opportunities for the development of all types of students' speech activity (Paramonova, 2016). In terms of language teaching, we believe that the content of international environmental organizations' websites is most suitable. Let us comment on our position. As is known, a website is a hypertext space characterized by such distinctive features as interactivity, dynamism, multimodality, and creolization (Chernyavskaya, 2009).

4. Purpose of the Study

This paper presents the experience of using English-language environmental online discourse in teaching ESP to ecology students. Based on the fundamental principles of ESP, the paper describes

didactic advantages of virtual environmental discourse in terms of accessibility, authenticity, lexical diversity of texts on environmental topics, and a wide range of language means.

5. Research Methods

Environmental organizations' websites reflect the current problems of science and practice and contribute to increasing cognitive motivation of students. The website, as a rule, is visually attractive, convenient when browsing the content, informative, and interactive. Its hypertext space can be divided into three interconnected parts:

1. a presentation part, which includes information about the organization, its goals, mission, activities, team, partners, results, promotions and leading experts, and evaluation information that helps to create a positive image of the organization and is reflected in sections such as Our vision, Our mission; Our values, Our core values. Reading the texts from this part allows students to immerse themselves in the problems of the environmental organization and get acquainted with its values and areas of activity.
2. an informative part, which includes information on scientific research, global environmental movements, reports and records, latest news, stories, documents, educational resources, information about vacancies, links to audio, video materials, etc. The content of this part makes it possible to get acquainted with the latest research, the latest achievements in the field of ecology, and the most discussed issues and study the contents of such scientific journals as Journal of Applied Ecology, Ecology and Evolution, Functional Ecology, Methods in Ecology and Evolution, etc.
3. an interactive part, which mainly includes instructions on how to use the resources of the website to help nature. This part presents the methods for attracting a wide audience to topical environmental problems.

Thus, the websites of international environmental organizations may well become a source for the selection of relevant texts of various types – from traditional to multimedia. However, some authentic texts cannot be suitable for teaching because researchers emphasize that “texts for study should meet the following basic criteria:

- be focused on the students' future specialty, informative, up-to-date;
- have a polemical focus that encourages debate and discussion;
- be authentic, rich in scientific terminology, with complicated grammatical constructions, coherent, logically arranged, and clear-cut” (Kaderova et al., 2018).

The extremely wide content of the environmental organizations' websites allows selecting texts which meet the criteria mentioned above and relate to various thematic areas, for example, Climate change, Ecosystems, Energy, Forests, Green economy, Oceans and Seas, Resource efficiency, Technology, Transport, Chemicals and Waste, Water, Food, Wildlife, etc. In addition, text fragments of different styles can be used for didactic purposes, i.e. scientific style, popular scientific style, scientific teaching style, publicistic style, as well as texts of non-profit advertising.

6. Findings

To illustrate the use of the materials taken from environmental online discourse, let us present a set of pre-reading activities for authentic discussion texts.

- Conversation questions

Among the tasks of before reading stage, we can distinguish the desire of a teacher to stimulate students' interest in the text given and to develop skills to predict its content. Some specific questions can motivate students to engage in the reading process and express their own opinions.

Here are some examples of conversation questions to the authentic text on negative outcomes of deep-sea mining posted on the Greenpeace website:

Answer the following questions before reading the text about the negative outcomes of deep-sea mining.

Do we want to destroy wonders that we are yet to discover and properly understand?

Do you know what percentage of the sea depths has already been studied by people?

Do you agree that environmental concerns are the biggest blocker to progress?

Text 1.

“So far, we’ve only explored 0.0001% of the deep seafloor to see what lives there. We have so much more to learn about the deep ocean’s wildlife and ecosystems. How can companies properly risk manage something that we are yet to fully understand?...” (Greenpeace, 2019).

Conversation questions, then reading the text and understanding its main message help students formulate their own stance on the problem and activate grammar and vocabulary.

The degree of understanding of a foreign language text depends on the student’s ability to ‘demonstrate structural anticipation’ (Kulkina, 2007). The following exercises are aimed at developing this skill.

- True or False?

The True or False? the technique focuses students’ attention on scanning the text in order to find out if the statements are true or false. Here is an example of including this task in the work with the authentic text on the problem of bird population conservation.

Look at the following statements and decide if they are true or false and explain why:

Forest areas continue to decline through land clearance.

Large bird species can live on patches up to 10 ha.

Ecological studies haven’t been used by researchers yet (Pavlova, 2019).

Text 2.

“About one-third of forest bird species cannot live in small remnants of forests. The smaller birds such as the forest robin will use patches as small as 10 ha...” (The British Ecological Society, n.d.).

- Forecasting the Content

The Forecasting the Content technique assigns students to look at the heading, predict the content of the article, and then match the subheadings with the paragraphs (table 1).

Forecasting the Content. Look at the heading of the article from the website of the British Ecological Society. Say what you expect to find in the text. Match the paragraphs and their subheadings.

Table 01. What is ecology? (The British Ecological Society, n.d.)

Subheadings of paragraphs	Text of paragraphs
Can we conserve habitat and its biodiversity?	Ecology is the study of interactions among living things and their environment. It provides a new understanding of these vital systems as they are now, and how they may change in the future.
Why is ecology important?	Governments and citizens around the world are increasingly aware of the consequences of atmospheric pollution and climate change...
What is ecology?	Ecology enriches our world and is crucial for human wellbeing and prosperity. It provides new knowledge of the interdependence between people and nature that is vital for food production, maintaining clean air and water, and sustaining biodiversity in a changing climate.
Can we predict the ecological effects of pollution and climate change?	It is possible but depends on where we are in the world. In the Antarctic, the marine ecosystem is currently managed as a whole under an international agreement to conserve living resources...
How does forest destruction affect bird populations?	About one-third of forest bird species cannot live in small remnants of forests. The smaller birds such as the forest robin will use patches as small as 10 ha...
Can we fish the ocean without depleting its riches?	Yes. Ecology provides an essential basis for nature conservation. Maintaining a mosaic of habitats ensures the survival of a rich variety of species...
How does forest destruction affect bird populations?	Mangroves play a number of ecological roles from fixing sediments to acting as a nursery site for young fish...

The materials presented are sample tasks. Certainly, the texts, the level of their difficulty and the degree of immersion in one or another problem area of ecology can vary depending on the level of students' competence, their professional interests, and learning objectives.

As part of our study, from September to December 2018, ecology students (25 people) experienced an experimental process of learning English with the integration of authentic content of environmental organizations' websites. For 17 weeks, classes on lexical topics were held for 30 minutes a week using authentic texts and a set of tasks for them. In addition, all 17 weeks students received assignments to independently browse and study the content of international environmental organizations' websites considering their scientific and professional interests.

After one term's training, we offered the students a questionnaire to find out their response.

The questionnaire consisted of the following questions:

1. Do you find the texts taken from the websites of international environmental organizations interesting?
2. Has reading authentic texts helped you in ESP learning and / or in the preparation of your research work?
3. Have you had any difficulty when reading authentic texts from websites of environmental organizations? If yes, provide examples, please.
4. Has reading of the authentic texts helped you while studying ecology disciplines?
5. Would you like to continue to use authentic texts from the websites of environmental organizations in ESP learning in the future?

6. Give examples of tasks that you liked most.
7. Give examples of tasks that you did not like.

The results of the questionnaire are presented below (figure 1), which shows the percentage of positive answers to 1-5 questions:

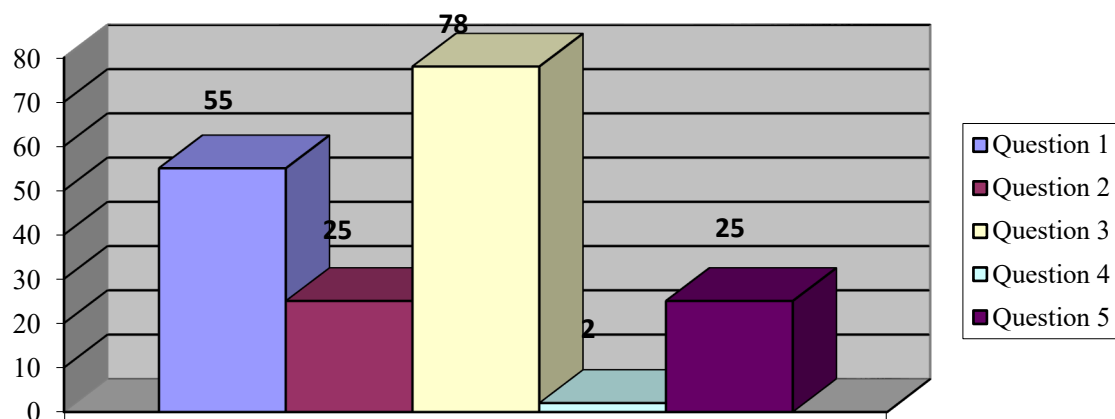


Figure 01. Student questionnaire results

More than half of students (55%) expressed interest in reading authentic texts. The most prepared students, 25% of all, noted the benefit of authentic texts in learning a foreign language, and also emphasized a good opportunity to get acquainted with the latest research in the field of ecology when reading these texts. The same number of students (25%) expressed a desire to continue to read authentic texts and browse the websites of international environmental organizations. Almost all students found it difficult to answer the question of whether reading authentic texts in English helped in the study of special disciplines. Among the difficulties in perceiving an authentic text, 78% of students indicated its difficulty in terms of grammar.

The students said the most interesting exercises were on anticipation (Forecasting the Content, True or False?), the tasks with conversation questions turned out to be the least interesting. These tasks were rated by students as the most difficult since they experienced difficulties in formulating their own opinions in a foreign language. Some students later in informal conversations noted that they found it difficult to formulate their stance to the problems discussed in the texts not only in a foreign language but also in their native language.

7. Conclusion

So, the environmental organizations' websites can be used as a source of relevant authentic texts, allowing teachers to bring the learning situation closer to a professionally-oriented foreign language environment. In the present study, we attempt to show the educational potential of the English-language environmental online discourse on the example of exercises that enhance motivation to read career-specific texts and develop the ability to predict the content of the text.

One term's student training using authentic content of the environmental organizations' websites showed generally positive results. It seems that the goal of increasing students' cognitive motivation and immersing them in professional issues with the help of authentic texts, which reflect the reality of contemporary English, has been achieved.

In conclusion, let us suggest that acquaintance of ecology students with environmental online discourse will contribute to the development of not only L2 proficiency but also professional communicative competence.

Acknowledgments

The publication has been prepared with the support of the 'RUDN University Program 5-100'.

References

- Bocanegra-Valle, A. (2010). *English for Professional and Academic Purposes*. In Ruiz-Garrido, M. F., Palmer-Silveira, J. C., & Fortanet-Gómez, I. (Eds.). Rodopi.
- Bowker, L., & Pearson, J. (2002). *Working with Specialized Language: A Practical Guide to Using Corpora*. Routledge.
- Chernyavskaya, V. E. (2009). *Linguistics of the Text: Multi-coding, Intertextuality, Inter-discursiveness*. Librocom.
- Douglas, D. (2000). *Assessing Languages for Specific Purposes*. Cambridge University Press.
- Greenpeace. (2019). *5 Reasons Why Deep Sea Mining Will Only Get Our Planet Into Deep Trouble*. <https://www.greenpeace.org/international/story/23164/5-reasons-to-stop-deep-sea-mining>
- Hutchinson, T., & Waters, A. (1982). Performance and competence in English for Specific Purposes. *Applied Linguistics*, 2(1), 56–69.
- Kaderova, R., Valeeva, N., Merkusina, N., & Nigmatzyanova, Yu. (2018). On criteria for selecting material for teaching ESP to ecological faculty students. *RUDN Journal of Ecology and Life Safety*, 26(1), 153–162.
- Kostyukova, T. A., & Morozova, A. A. (2011). *Development of Foreign Language Communicative Competence of Students of Non-linguistic Universities*. Publishing House of Tomsk Polytechnic University.
- Kulkina, E. A. (2007). Techniques for working with English educational texts at the pretext stage. *Foreign Languages at School*, 5, 74–76.
- Nigmatzyanova, Y., Valeeva, N., Rudneva, M., Guslyakova, A., Ulanova, K., & Pavlova, E. (2019). Developing speaking skills through cartoons in English for Specific Purposes (ESP) classes. A case study of ecological faculty students. *INTED2019 Proceedings*, 4091–4094.
- Paramonova, M. I. (2016). Electronic Newspaper discourse as a means of forming profession oriented foreign language communicative competence of students educated in the field of foreign regional studies. *Philology at MGIMO*, 5, 133–140.
- Pavlova, E. (2019). International environmental organizations websites as an educational resource in teaching English for specific purposes. *INTED2019 Proceedings*, 4079–4083.
- The British Ecological Society. (n.d.). *What is Ecology?* <https://www.britishecologicalsociety.org/about/what-is-ecology>
- Tomlinson, B. (2014). *Developing Materials for Language Teaching*. Bloomsbury Publishing PLC.
- Torregrosa, B., & Peñamaría, S-R. (2011). Use of authentic materials in the ESP classroom. *Encuentro*, 20, 89–94.
- Wegener, B. (2008). *English Projects in Teaching and Research in Central Europe*. Cuvillier Verlag.