

The Course “English for Biologists” and Web Page ‘APres’ How Modern Communication Technologies Help to Promote Communicative Competence

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Abstract: The paper deals with the course “*English for biologists*”, which has been designed and developed for the students of the Department of Natural Sciences of Novosibirsk State University. The main aim of the course is to form specific language skills: academic listening and giving oral academic presentations. The course is described in some detail. During the four stages of the course each student has to give four academic presentations. The paper considers some of the ways the students use computers and the Internet in acquiring the course. The skills are studied that are formed with the help of modern communication technologies. To help the students cope with the course the Web page *APres* has been created. It provides useful information and advice for the students and for all those people who want to learn how to give and comprehend oral academic presentations. The Web page *APres* is briefly outlined.

1 INTRODUCTION

Biologists study English at the Department of Natural Sciences (DNS) of Novosibirsk State University (NSU). In the course of English, they are to acquire enough knowledge and skills for the practical use of the language. They are supposed to learn how to: 1) read and comprehend texts on their speciality; 2) write reports and papers; 3) give and comprehend oral academic presentations.

The course “*English for biologists*” has been designed and developed in addition to the general course of English. It allows to form specific skills in *ESP (English for Specific Purposes)*. Some of them are academic listening (listening to lectures and other academic presentations) and giving oral academic presentations (lectures, reports). The course consists of four stages and lasts four semesters. During the course, every student gives four academic presentations. To prepare for them students use the texts read during the semester.

The Internet is widely used in the course: the electronic dictionaries are used to read and translate texts; the search engines – to find some extra information on the topics of their presentations. Word processors are employed to prepare the written texts of presentations.

The activity of preparing and delivering presentations is a real challenge for non-language students. In order to help them cope with the problem a resource Web page has been created – the Web page *APres (Academic Presentations)*. It is aimed to equip students with the necessary language skills and communication techniques.

2 SPECIAL COURSE “ENGLISH FOR BIOLOGISTS”

Biologists are trained in their speciality at the research institutes of the Siberian Branch of the Russian Academy of Sciences. The professional training is guided by scientists who tackle major scientific and engineering problems.

Students participate in practical and scientific seminars, workshops, and conferences as well as in writing reviews, reports, and collective papers. Many scientists co-operate and communicate with their foreign colleagues in English. Taking part in real research work the students understand that they have to learn how to communicate in English.

The course “*English for biologists*” is an *ESP* course. The main objective of any *ESP* course is to

help students acquire the linguistic and communicative skills related to their disciplines, so a content-based approach is especially useful. Content-based instruction “employs authentic reading materials which require students not only to understand information but interpret and evaluate it as well ...” (Brinton et al., 1989).

The Internet is a learning tool that fits well in a content-based *ESP* syllabus. There are some important benefits of the Internet use: 1) more opportunities to interact with the target language and content area because students spend more time on a task; 2) increased motivation and participation by the students; 3) greater integration of reading and writing skills and opportunities to practice them in meaningful contexts; 4) more self-paced autonomous learning that is learner-controlled rather than teacher-controlled.

The students who study English at the DNS NSU are mostly low-intermediate students. Being adult learners they face difficulties in mastering speaking and listening skills. The fact is that adult learners can speak about very serious matters and issues in their native tongue but have very limited means to express their thoughts and ideas in English. When teaching we have to take into account both the language level of the students and their command of speciality (Hutchinson and Waters, 1992).

The course “*English for biologists*” is primarily intended to form the skills of academic listening and giving oral academic presentations.

The students are taught to communicate. The Internet is utilized in this process as a research tool, a conversational tool, and a production tool. Various language skills can be practised and acquired with the help of the Internet.

2.1 Oral Academic Presentations at the 1st and 2nd Stages of the Course

The work pattern at the 1st and 2nd stages of the course is the same. Every student chooses a text from the book suggested for the presentations and once a semester gives a presentation. Then there is a discussion. Speaking and listening skills interrelate and interact very closely here. Reading and writing are also involved.

For the 1st series of presentations the book *Right Reading* (Beginning Level) by Dean Curry is taken. The texts are short (450-600 signs), easy to read and understand and related to biology. They outline such topics as the wildlife, the survival of species in the process of natural selection, etc. There are five or six exercises in each chapter and a glossary.

At the 2nd stage of the course we take the book *Read On* (Intermediate Level) by Dean Curry for academic presentations. The texts tell us about such problems as recognition of smells by animals and people, radar system in bats, etc. The texts and exercises are more complicated, but short and related to biology as well.

The techniques of preparing and delivering presentations are thoroughly elaborated. The manuals for speakers have been developed. They are: ‘*Listening Strategies*’, ‘*Speaking Strategies*’ and ‘*Manual for speakers. Academic Presentations. 1st and 2nd Stages*’.

2.2 Scientific Conferences at the 3rd and 4th Stages of the Course

The work pattern changes at the 3rd and 4th stages of the course. The activity results in two scientific conferences: “*Disease. The Greatest Agent of Natural Selection*” and “*Bacteria. The Workhorses of Biotechnology*”.

The 1st conference is held at the end of the third semester. To prepare for the conference the students use texts from the book “*Clones, Viruses, etc. Reading and Speaking on Biology and Medicine*” (Snytnikova, 2002; 2006) read in the semester. The texts are rather long (1,000-1,500 signs) and related to biology. They are dedicated to such academic topics as the causes of diseases, the nature of viruses, etc. The texts are read aloud, translated, and thoroughly analyzed in class. All the exercises that accompany the texts are fulfilled. All the four language skills are acquired here. Subject-specific lexical items are accumulated.

A number of conversational gambits are studied, which can be useful in the course of an academic presentation. The students get to know when and how to take the floor, how to introduce a topic or change the subject, etc. (Nunan, 1992).

2.2.1 3rd Stage. Conference “*Disease. the Greatest Agent of Natural Selection*”

Every student chooses a text that he will use to prepare an academic presentation for the conference. Students write the texts of presentations making use of the key points from the text and special conversational gambits.

They employ their skills in *Multi-Skills Reading* in the process. The following reading skills are involved: 1) skimming for key words; 2) scanning for specific information; 3) reading in meaningful units; 4) recognition of clues, which signal phrases.

The students use the writing skills they have acquired and organize the content at the level of the paragraph reflecting the given information.

Finally, students give oral presentations at the conference "*Disease. The Greatest Agent of Natural Selection*". The topics are "Disease", "Virus", "Cancer", etc. Some new speaking skills are involved here: 1) using appropriate conversational formulae and filters; 2) skills in taking short and long speaking turns. *New Oral Communication Skills for Academic Purposes* are formed: 1) an acceptable degree of fluency, and 2) transactional and interpersonal skills. All students prepare one or two questions on the topic of each report. They are asked in the discussion after the reporter has given his presentation.

2.2.2 4th Stage. Conference "*Bacteria. the Workhorses of Biotechnology*"

The conference "*Bacteria. The Workhorses of Biotechnology*" is the ultimate aim of the course. It is held at the end of the 4th semester. The material is the article from *National Geographic* named *Bacteria. Teaching Old Bugs New Tricks* (Candy, 1993). The article is big – 30,000 signs. It is studied thoroughly during the semester both in class and at home: it is read aloud, translated, and discussed.

Then the students are offered a list of presentation topics. The themes relate to various modern biotechnologies using bacteria. For example: 1) *Microbes as factories making pharmaceuticals, pesticides, solvents, and plastics*; 2) *Using bacteria for bioremediation*, etc.

To prepare for the presentation every student has to look through the whole article again, find all the information concerning the given topic, analyze it, decide, which part of it to include into the report. After that he writes his report and presents it at the conference. While presenting he is to use *Conference Lexicon* properly.

Everyone also makes up a list of questions on all topics in advance. After the presentation there is always a question-answer session and a discussion. The whole group takes part in it.

2.3 How the Internet and Computers Are used in the Course "*English for Biologists*"

In their work with the course "*English for biologists*" students widely use computers and the Internet.

While reading and translating the texts they

make use of electronic dictionaries but not the paper ones. It is faster, more comfortable, and cheaper. You can also find transcriptions of any words on any speciality in on-line dictionaries whereas English-Russian special paper dictionaries do not give transcriptions. Many on-line dictionaries provide not only quick search, but also high quality sound. So one can read the word, hear it, and pronounce it properly after the computer.

When preparing for the conferences at the 3rd and 4th stages of the course my students and I regularly exchange e-mail letters. The students send me rough copies of their conference reports. Having checked and corrected them I send them back. It allows me to carry out individual distance teaching providing my students by a feedback channel.

One of the students is chosen to be the secretary of the Conference. He is responsible for the printed materials. All students send him e-mails with the titles of their reports and some other necessary information like their names and surnames in English spelling, etc. He, then, makes up the conference program and prints it out.

We publish conference proceedings. Reports to be included into the proceedings are often e-mailed too. The students write all this outside class. Thus, they always have some extra practice in English.

Some of the skills acquired with the help of the Internet and other modern communication technologies are: reading (reading for detail, reviewing and predicting); writing (copying parts of information, expressing opinions); speaking (talking about current scientific news), etc.

The information in the Internet is obtained immediately, which provides strong motivation for careful reading. You can even write a letter to the author of the article or the editor of the journal (Teeler, 2000).

Students use a word processor to prepare the texts of the presentations in written form. It helps them develop writing and editing skills.

3 WEB PAGE 'APres'

Modern communication technologies greatly extend language-learning opportunities. The Internet is suitable for any language course designed around the specific needs of a particular group of students.

The Web page *APres* (**A**cademic **P**resentations) is aimed to provide useful information and advice for students who take the course "*English for biologists*" and for everyone who wants to learn how to prepare and deliver an academic

presentation. It equips students with the necessary language skills and communicative techniques.

APres consists of eight sections: 1) General information; 2) Conference lexicon; 3) Presentation techniques; 4) Conferences; 5) Photos; 6) Poster guidelines; 7) Notes for writers; 8) Feedback. Section 2 contains the necessary conversational gambits. Section 3 is dedicated to the ways of preparing and delivering academic presentations. Section 6 teaches how to make a good poster. Other sections are equally relevant. All the sections are linked together.

The Web page *APres* is most purposeful and effective as it is learner-centred, based on authentic communication and connected to a larger goal – developing academic skills. It is a multimedia resource and communication tool, which both supports class-based learning and helps to develop independent learning skills in students and improve their language competence.

4 CONCLUSIONS

The course “*English for biologists*” is an *ESP* (English for Specific Purposes) course. The aims of the course are to help students to form linguistic and communicative skills related to their discipline. The course is based on the content of the subject and on the use of authentic materials. The students’ linguistic needs and learning styles are considered carefully.

Every student gives four academic presentations during the course. Presentations are popular with the students. All the four language skills (listening, speaking, reading, and writing) interrelate and interact very closely here. The students also acquire communicative competence. They learn to be effective while communicating on professional topics.

The given course can easily be transformed into a course for ecologists, chemists, etc., if you change the content, as the course is content-based.

The technologies of computer-aided learning, such as the Internet and e-mail, help the students greatly in acquiring necessary linguistic and communication skills here.

The Web page *APres* has been created as a supplement to the course. This Web page is a kind of blended learning environment, in which modern technologies both support class-based learning and help to develop independent learning skills in students. It also helps to promote their communicative and language competence.

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