Teaching professionally-oriented English writing to the first-year students majoring in System Analysis

Abstract. The article deals with the problem of content selection in teaching professionally-oriented English writing to the first-year students majoring in System Analysis. The requirements to the content of teaching, namely, its professional, preparatory and obtainable character, are identified. The necessity in teaching professional writing on the first year of study at tertiary schools is stressed. The differences between professionally-oriented technical, academic and fiction writing are revealed after the comparative analysis from the point of view of their communicative aim, content, genre, structure and style. Distinctive linguistic and extra-linguistic features of professionally-oriented English writing are determined. Linguistic difficulties, which students deal with while writing English professionally oriented texts are analyzed.

Keywords: teaching English for Professional Purposes, teaching technical writing, content of study, characteristics of technical English

Introduction. In the third millennium teaching English has gained particularly important value, as the English language has become lingua franca in professional and scientific exchange of experience and achievements. With the help of the English language the outcomes of scientific, industrial and academic breakthroughs of different countries are exchanged for the benefit of society. Thus, tertiary schools nowadays face the urgent need to provide students with the knowledge and skills not only in General English, but also in English for Specific Purposes, so that university graduates could communicate with their foreign colleagues, discuss professional issues, broaden their knowledge through using English materials and literature. This goal presupposes the development of specially tailored teaching materials and methodologies developed for specialists from different fields of knowledge. The foundations of the tendency were laid by the prominent British publishing houses, such as Oxford University Press, Pearson Longman (English for Banking and Finance, Technical English, English for Information Technology etc.), and then continued and expanded by publishers of many countries, universities and institutions. Unfortunately, there is a lack of English teaching materials for students majoring in System Analysis students.

Specialists of System Analysis have to be able to design, develop and use computerized systems to solve complex problems as well as analyze and predict dynamic processes in different spheres of human activities. The problem of teaching professionally-oriented English writing to future system analysts is gaining particular importance nowadays, which is due to the rapid development of information and communication technologies which help to organize effective written professional communication. Large amount of technical means for distance communication (e-mail, instant messengers, Skype etc) provide professionals with the opportunity to communicate with their colleagues over distance and make the ability to conduct written communication of paramount importance. This has led to the increase in the demand for professionals with well-developed English for Specific purposes writing skills. Thus, teaching professionally-oriented English writing has become necessary and absolutely important for universities.

The problem of content selection in teaching English for Specific Purposes has been developed by many scientists and teachers: the requirements for the content of learning were analyzed by O. Tarnopolskiy, Z. Kornieva; the research of the peculiarities of technical writing was conducted by S. Gerson, C. Wilson, I. Mokva-Tarnovska, the difficulties of technical English writing were presented in the works of L. Selinker and S. Pearson. The aim of our research is to conduct the analysis of the content of teaching professionally-oriented English writing to future system analysts during the first year of study at tertiary schools.

Current tendencies in the methodology of teaching emphasise the necessity of teaching English for Specific Purposes from the very first year of study at tertiary schools [3:1]. The integration of teaching general and professionally-oriented English is also highly recommended by current university curricula. Thus, in ESP National Curriculum for Universities [2:30], which is based on the Common European Framework of Reference for Languages [1] it is stated that “to qualify for a Bachelor’s degree, together with other professional skills, a student should be able to communicate effectively in English in the world of work” to discuss academic and professional issues, analyze the English language sources of information, write professional texts and documents in English on a variety of professional topics etc. At the same time, the restricted amount of English classes at technical universities causes the necessity in teaching professionally-oriented English from the first year of study at universities in order to develop all the necessary English communication skills and competences as well as to reach the target level of B2.

On the other hand, teaching ESP right at the first year at university should not create excessive difficulties of subject, didactic and linguistic character caused by the un-readiness of students to study in new environment, with new content and methods of study as well as by their insufficient level of English.

Thus, the following requirements are put forward to the content of ESP teaching in general, as well as to the content of teaching ESP writing to the first-year students majoring in System Analysis in particular:

1. The content of learning should be professionally oriented and specialism-related and follow the principle of communicative sufficiency i.e. being able to meet the communication needs of students in English-speaking environment;

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2. The content of learning should be accessible for the first-year students as well as take into account the multi-level character of the academic group;
3. The content of learning should prepare students for further immersion into more specialization-related English learning during the next years of study and simultaneously improve their general English level [3;11].

Teaching specialization-related English writing to technical students has gained wide popularity in Western studies, where it is called “teaching technical writing” (Gersson S.M., Wilson Chad A.B., Mokwa-Tarnowska I.). The term “technical writing” is defined as communication texts “written for and about industry, focusing on products and services: how to manufacture them, market them, manage them, deliver them and use them” [5;1]. Technical writing is used in professional spheres and is usually aimed at supervisors, subordinates, vendors, customers etc. A wide range of genres belongs to Technical English writing, among them memos, e-mail, letters, reports, instructions, brochures and newsletters, web pages, graphics, Power Point presentations being most popular.

Contrastive discourse studies have made it possible to reveal the characteristic communicative differences of technical, academic and creative writing which are important for the study of ESP. C. Wilson [9] generalized the results of these researches having chosen purpose, content, genres, format and style as the criteria for comparison (See table 1.1.)

Table 1.1. Comparison of Technical, Academic and Creative Writing by C. Wilson

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Technical Writing</th>
<th>Academic Writing</th>
<th>Creative Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>To inform</td>
<td>To persuade</td>
<td>To entertain</td>
<td></td>
</tr>
<tr>
<td>To instruct</td>
<td>To argue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>Factual, straightforward</td>
<td>Factual, straightforward</td>
<td>Imaginative, metaphoric</td>
</tr>
<tr>
<td>Genres</td>
<td>Instruction, report, specification etc.</td>
<td>Thesis, article etc.</td>
<td>Essay, drama, novel etc.</td>
</tr>
<tr>
<td>Format</td>
<td>Introduction (Background, Purpose)</td>
<td>– Thesis</td>
<td>No set format</td>
</tr>
<tr>
<td></td>
<td>– Methodology</td>
<td>– Reasons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– Results</td>
<td>– Evidence</td>
<td></td>
</tr>
<tr>
<td>Style</td>
<td>– Simple declarative sentences</td>
<td>– Longer sentences and paragraphs</td>
<td>– May include long sentences for effect</td>
</tr>
<tr>
<td></td>
<td>– Concise sentences and paragraphs</td>
<td>– Personal opinion may be assumed</td>
<td>– May include personal narration</td>
</tr>
<tr>
<td></td>
<td>– Avoiding personal pronouns, judgments, feelings</td>
<td>– Formal style</td>
<td>– Informal, figurative style</td>
</tr>
<tr>
<td></td>
<td>– Formal style</td>
<td>– Clear topic sentences, may vary for argumentative effect</td>
<td>– No clear topic sentences</td>
</tr>
<tr>
<td></td>
<td>– Clear topic sentences</td>
<td>– Some specialized vocabulary</td>
<td>– No specialized vocabulary</td>
</tr>
<tr>
<td></td>
<td>– Specialized vocabulary</td>
<td></td>
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</tr>
</tbody>
</table>

Professionally-oriented English writing possesses several important extralinguistic and linguistic features which should be given special attention while studying. The most striking ones are listed below:
1. Accuracy – effective technical writing must be accurate and correct. The use of examples, numbers, data and results of the researches demands clarity and accuracy, e.g. The meeting is planned for March 18, 2004, in Conference Room C. from 8:00 a.m. – 5:00 p.m.
2. Conciseness – the avoidance of multisyllabic words, lengthy sentences, paragraphs, prepositional phrases. e.g. I am in receipt of your e-mail message requesting an increase in pay. – I received your e-mail message requesting a pay rise.

The other alternative is to change the procedure. – The alternative is to change the procedure.
3. e.g. I am in receipt of your e-mail message requesting an increase in pay. – I received your e-mail message requesting a pay rise.
4. Accessible document design – the use of correct page layout, templates, tables, highlighting techniques, graphical means of text formatting.
5. Audience recognition – taking into account of audience needs and the purpose of writing. Thus, the use of abbreviations is reasonable while writing to colleagues, but it requires additional explanation if the target audience is not acquainted with peculiarities of profession.

6. Grammatical and lexical correctness of the text plays important role because the information presented in technical texts has to be rendered accurately and any mistakes caused by inadequate understanding may lead to serious consequences.

Professionally-oriented texts also have different from general English texts linguistic peculiarities of their own. Teaching students these peculiarities will help them to better understand the nature of technical writing and successfully apply their knowledge in future career: On the lexical level characteristic of technical writing are [4]:
- use of terminology: e.g. user interface, resolution, capacity etc.
- accuracy of meaning: e.g. Operating system vs operational system, electric vs. electrical etc.
- strict word-order in phrases and collocations: e.g. inside out, supply and demand, profit and loss
- use of collocations: e.g. web browser, computer network, computer hardware etc.
- use of general English words with technical meaning: e.g. parts – components, look into – investigate, work – operate etc.
- use of compound and complex words, made up by different models: e.g. Noun+Adjective (user-friendly, water resistant), Noun+Noun (user interface, website, web page), Noun+Verb (troubleshooting, touch screen), Adjective+Verb (left-click, right-click).
- use of abbreviations and shortenings: e.g. GUI – graphical user interface, LAN – local area network, HTML – hypertext markup language etc.
- non-characteristic is the use of emotionally-coloured and multi-meaning words.

Grammatical peculiarities of English technical texts include:
- use of Passive Voice: e.g. The conference was stated for March 30, 2012.
The research was made to list the most popular programming languages.
high frequency of use of the word “to be”: e.g. The main part of a computer is a processor.

A user guide is a technical communication document intended to give assistance to people using a particular system.

- use of infinitive and its constructions:
  e.g. To open the file, double-click the icon.

- use of gerund and its constructions:
  e.g. Open the file by double-clicking the icon.

- use of participle:
  e.g. Having opened the file, copy the text.

The researches have been conducted to reveal main difficulties which students encounter while studying ESP writing. L. Selinker and S. Pearson [7,8] include to these difficulties the following:

1. use of terminology specific to the particular professional sublanguage as well as terminology common to many spheres. These difficulties are connected mainly with the necessity to know and understand the terms of the profession and their translation in English. Particular attention should be given to compound nominal terms and stone wall constructions (e.g. hypertext transfer protocol, graphical user interface etc.), and shortenings common to the professional sphere, but unknown to the students (e.g. spec – specification);

2. use of common words in terminological sense which may lead to difficulties with translation and understanding (e.g. architecture, mouse, bug, menu, protocol etc.);

3. understanding the degree to which author is confident in or responsible for the content of writing. For instance, the two following sentences have different degree of objectivity:

The results would seem to indicate the error in the system. - The results indicate the error in the system.

The subtle linguistic difference between the two sentences possesses great meaningful value, but is still not obvious for ESP students.

4. Contextual paraphrase - use of two or more words to denote the same notion in order to avoid repetition. Avoidance of repetition is common to belltristic writing, but in technical texts replacement of the key notions with synonyms may lead to ambiguity and misunderstanding. Nevertheless, it is very important to teach students how to find, understand and use contextual paraphrase, in particular, such its types as changing of part of speech (repeat-repetition), use of synonyms and “specific-general” replacements (software-program, display-monitor etc).

In our opinion, there is still another important class of ESP writing difficulties connected with writing genres. Future system analysts need to understand that each genre of specialism-related writing (instruction, business-letter, report etc) has its own peculiarities of structure, lexical and grammatical nature as well as coherency and cohesion of the text etc.

To sum up, together with the necessity in teaching future system analysts professionally-oriented English writing, there is a need to select the content of the learning according to the criteria of accessible, specialism-related and preparatory character of learning. Technical writing possesses a number of peculiar linguistic and extralinguistic features, which play an important role in the study. Future researches of the sphere may be connected with the selection of the genres and creation of the methodology to teach professionally-oriented writing to future system analysts.

REFERENCES

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Abstract. The most urgent problem of competitive specialists training in higher educational establishments in the conditions of socio-economical dynamics of the transformation of Ukraine and the integration of our country into the world society has been considered. Especially the comparative analysis of professional training of specialists in computer sciences in Japan where extremely precipitous economic and technological changes influence on the continuous modification and the upgrading of curricula and teaching techniques has been conducted. The attention is focused on the features of the organization of IT specialists training at different qualification levels at the most prestigious universities of Japan. The characteristics of the peculiarities of Bachelor’s, Master’s and Doctor’s academic programs which are suggested at Japanese universities have been presented. The innovative achievement of the universities of Japan is the organization of study on the basis of the individually-oriented curriculum at the direct participation of the academic advisor. The effectiveness of the model of training of specialists in computer sciences in the higher education system of Japan testifies the presence of positive approaches and ideas and is the basis for the implementation of this model into the practice of native higher education establishments. The importance and necessity of the implementation of positive foreign experience into the training of professionals for professional activity in the IT industry in Ukraine has been emphasized. The prospects for further research of training practice of specialists in this field of knowledge have been outlined.

Keywords: qualification levels, training programs, credit points, Bachelor’s degree, Master’s degree, Doctor’s degree.

Introduction. The integration of Ukraine into European and world educational space and the permanent upgrading of quality of specialists training are those organically interrelated priorities that come forward as key in the understanding of modern strategy of the development of higher education in Ukraine taking into account the basic principles of the Bologna Process. In this aspect the question of qualification and specialization of specialists of all industries on the whole and industry of information communication technologies in particular acquires the important value as the phenomenon caused by technological factors that determine the structure of the labour market and assist to personal and professional development of students. Among the factors that negatively influence on the development of Ukrainian industry of information technologies the deficiency of personnel occupies a key place. The maintenance of professional training of graduates of IT profile direction causes serious complaining from the leaders of native IT business [3].

The urgency and necessity of solving this problem is traced at the level of legislative and normative documents of government and the Ministry of Education of Ukraine. In particular it is envisaged “to implement at higher educational establishments the specialists training in new specialties in the field of information communication technologies in accordance with the necessities of the market” by the Law of Ukraine "On fundamental principles of the development of information society in Ukraine in 2007-2015" [1]. It should be especially noted that the realization of assigned task must be based on the results of study of the latest versions of the international classification systems concerning education, the structure of the information technologies market, the IT career options and also the academic and professional qualification framework structures.

And in the Letter of the Ministry of Education of Ukraine "Concerning the improvement of the training quality of specialists for IT industry" (the Letter of the Ministry of Education and Science, Youth and Sport of Ukraine from 16.02.2012 No 1/9-119) [2] the necessity is marked to revise the maintenance of normative disciplines that are taught during the training of specialists in the marked field of knowledge in accordance with the current development achievements of information technologies. In addition the Ministry also recommends take appropriate measures concerning the improvement of the level of students’ practical training with the involvement of employers into its organization due to the implementation of different forms of students’ internship in IT companies and the development and implementation of the adapta-