WRITING PROFESSIONAL ENGLISH – TRAINING MATERIALS FOR ENGINEERING AND CHEMISTRY

PhDr. Božena Zavadilová

Department of Foreign Languages, Faculty of Mechanical Engineering
Brno University of Technology
Technická 2, 616 00 Brno, Czech Republic
zavadilova@fme.vutbr.cz, 420- 54114-2771

SUMMARY

Leonardo da Vinci Project - Writing Professional English provides Instructional Modules as a part of the end-product. They involve task-based exercises interactive with the reference modules of the Handbook. The core exercises cover the selected problems of the chapters and are focused on two professional areas- engineering and chemistry. All the exercises contain self-assessment keys and explanatory comments. The optional exercises arise from the problems specific for different national users and are comprised in national versions. The materials are tested and amended according to the needs and suggestions of the end-users. They are offered in the electronic version and can be used in classroom courses, on-line courses, or for self-study purposes. The exercises developed can be extended and modified for specific applications and various professional areas.

1. INTRODUCTION

An integrated part of the Leonardo da Vinci project Writing Professional English are **Instructional modules** which contain task-based exercises divided into two areas – core exercises and optional ones. The core exercises cover selected chapters and topics of the reference modules and are focused on two professional sectors- engineering and chemistry. The optional exercises arise from specific problems and needs of particular nationalities involved in the project and offer Czech, Icelandic, Italian and Slovene versions. The Czech exercises are aimed at the language items that are different from those in English. The instructional modules are equipped with self-assessment keys, comments and feedback. The materials developed are open to further adaptations and modifications to meet the language needs of professional writers and suit their specific demands. The open and flexible modules can be used as a self-study resource and also in taught courses.

2. THE CONCEPT OF THE INSTRUCTIONAL MODULES

The Instructional modules are related directly to the text of the Reference Handbook – Writing Professional English. They give users the possibility to carry out practical tasks in sections that they have problems with, in order to deepen their understanding. The exercises are interactive and provide users with instant answers and feedback. They are computer-based with access through the internet and offer materials for self-study and also for classroom use.

To suit the needs of the different target professional subject areas, the Instructional Modules offer two versions of the exercises:

- engineering and technology-related disciplines
- chemistry and chemistry-related disciplines

In addition to these core materials related to engineering and chemistry, there are extra optional exercises that provide opportunity to practise specific language problems faced by national users in Czech, Icelandic, Italian and Slovene.

3. THE CONTENT OF THE INSTRUCTIONAL MODULES

Both core and optional exercises cover chosen chapters, or sections of the Reference module which are essential; less important section topics are omitted. See example of Chapter 2 in the Reference Handbook (Fig.l).

Section	Title	Type
2.1 Titles	Capital letters Composing a title Simplifying titles Titles	capital letters open questions multiple choice ordering words
2.2 Planning your Writing		
2.3 Paragraph Writing	Structuring a paragraph Points to include in a paragraph Dividing a long paragraph	ordering sentences yes / no open questions
2.4 Introductions	Analysis of an introduction Points to include	matching yes / no
2.5 Writing the Main Body		
2.6 Conclusions	Analysis of a conclusion Points to include	matching yes / no
2.7 Sections of a Research Paper		
2.8 Describing Tables and Graphs	Phrases to use in tables and graphs Describing data Verbs to use with tables and graphs Adverbs to use with tables and graphs Describing a histogram Describing a pie chart	matching matching fill in blanks fill in blanks matching fill in blanks
2.9 Referencing	Referencing - books Referencing - journal articles Format of references Format of references – electronic media	open ended open ended yes / no yes / no
2.10 Plagiarism		
2.11 Abstracts	Descriptive and informative abstracts Identifying keywords Add sentences into text Structuring an abstract Words with similar meaning Linking words and phrases Choosing correct linking phrase Structure of the abstract (IMRAD)	matching open ended matching ordering sentences fill in blanks fill in blanks fill in blanks matching
2.12 Summary Writing		
2.13 Acknowledgements		
2.14 Appendices		

Fig.1 Exercises to Chapter 2 (Reference Handbook).

The formats of the exercises involved in the Instructional modules are as follows:

1. Correcting mistakes (in words, or sentences)
2. Fill in blanks
3. Matching
4. Multiple choice (single or multiple correct)
5. Open questions (open-ended questions with possible commentary to the answer)
6. Ordering
7. Yes-No (True / False)

All types of the exercises include data on chapter, title, question/instructions and comments (see Figure 2 below).

Exercise type	
Chapter	
Title	
Question and instructions for the user	
Answer	
Feedback	
Comment	

Fig.2 A blank template/sample for exercises

4. THE PROCEDURE FOR DEVELOPING THE EXERCISES

The development of the Instructional modules has been based on the sources of raw scientific texts which have been collected from authentic pieces of professional texts related to specific working sectors. They have been chosen according to the needs of the particular types of the exercises.

The optional versions of the exercises have been focused on relevant national groups with the aim to point out specific language problems arising from different mother tongues.

The Czech national version contains extra exercises targeted at grammatical items that do not occur, or are used differently in one of the compared languages. They are articles, confusing words, negative prefixes, punctuation, and word order.

5. TESTING THE EXERCISES

During the development of the exercises and particularly at the final stage of the project, it is important to check the effectiveness of the materials being prepared and find if they meet the needs of the users. From this reason, a testing process is set up to provide feedback and make amendments and revisions of the existing exercises.

The questionnaire covers the main questions to be answered for making the necessary changes for the final version:

> *Are the purpose of the exercise and the instructions clear and easy to understand?*
> *Did you find the exercise easy or difficult to do? What difficulties did you find?*
> *Were there any technical problems with the exercise?*
> *Do you think it is useful and relevant to the needs of a scientific / technical writer?*
> *Are the feedback comments helpful?*
> *Is there anything that needs to be changed?*
> *Are there any other points that should be added?*

The testees of the target groups are professionals, students and teachers in different institutions so that the range of the opinions and requirements could be as wide as possible.

6. CONCLUSION

The training materials included in the Instructional modules are focused on the improvement of professional writing skills in English as an important tool of communication.

They contain model texts and examples from specific fields of technology and science that are not usually found in commercially offered materials.

They present a flexible product for the end-users who can choose a material compliant with their professional language needs and use it both for their self-study and as a resource for taught courses.

Web site exercises with immediate feedback and comments can be extended, modified and transferred to other national and working environments according to the specific needs of the target groups.

The guidelines and practical suggestions how to make use of the existing materials are included in the Methodological module which is an integrated part of the project - Writing Professional English.

LITERATURE:

[1] Writing Professional English, A Language Competences Project - Leonardo da Vinci Programme, 2003-2005