

# The role of translation in undergraduate medical English instruction<sup>1</sup>

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## Abstract

For most of its history of undergraduate medical English instruction at Belgrade University, translation was a major part of teaching and assessment. Educational reforms in the early 21st century resulted in a shift towards content-based instruction with the focus on reading comprehension and less translation. The paper analyses the new role of translation in the reformed Serbian curriculum. A brief history of Medical English instruction is outlined. The role of lexicon and the level of discourse within the teaching of English translation in the Serbian curriculum are explored. Some suggestions for the improvement of medical English translation in the Serbian curriculum are offered. It has been shown that translation is a valuable skill to be mastered. Translation exercises allow instructors to recognize language-related comprehension problems. Furthermore, teaching translation is important in that future medical professionals are able to recognize different medical genres and structural differences between English and Serbian.

**Key Words:** medical English, reforms, translation, lexicon, medical genres.

## Resumen

### *El papel de la traducción en la docencia universitaria del inglés médico*

Durante la mayor parte de la historia de la docencia del inglés médico en la Universidad de Belgrado, la traducción ha constituido un asunto prioritario como técnica docente y de evaluación. Las reformas educativas acometidas a comienzos del siglo XXI trajeron como resultado el cambio hacia una docencia basada en contenidos, mucho más centrada en la comprensión lectora y mucho menos en la traducción. En el presente trabajo se estudia el nuevo papel que ha adquirido la traducción en las titulaciones serbias tras la reforma. En primer lugar se esboza la historia de la docencia del inglés médico. Seguidamente se analiza el

papel que juegan el léxico y el discurso en la docencia de la traducción al tiempo que se ofrecen sugerencias encaminadas a mejorar la técnica docente de la traducción del inglés médico como parte del currículum académico en Serbia. La traducción se presenta como una destreza muy valiosa a dominar por parte de los alumnos y, por lo que respecta a los docentes, los ejercicios de traducción posibilitan el diagnóstico de posibles problemas lingüísticos. Por último, la enseñanza de la traducción resulta muy importante en el sentido de que capacitará a los futuros profesionales médicos a reconocer los distintos géneros del lenguaje médico especializado así como las diferencias existentes entre las lenguas inglesa y serbia.

**Palabras clave:** inglés médico, reformas, traducción, léxico, géneros médicos.

## Introduction

Since the mid-20th century, English has become the *lingua franca* for medical research, and English terms have been imported into many languages. The predominance of English gives native speakers a competitive advantage over those who have to acquire sufficient linguistic skills to communicate their results (Berghammer, 2006). Some authors have written about the struggle with English by non-native speakers. Benfield calls this weak appreciation of the conventions of discourse in English the “English Language Burden” (ELB) (Benfield, 2007: 363).

For most of its history, English for Specific Purposes (ESP) has been dominated by English for Academic Purposes (EAP), and by the subspecialty English for Science and Technology (EST) (Swales, 1988). EAP continues to dominate internationally (Johns & Dudley-Evans, 1993). EAP and ESP are now commonly referred to as International Scientific English (ISE). The common feature of this discourse community is the skilful use of English to write science. Scientific research, not language, is the focus and this has interesting consequences for the teaching of EST. If English is seen as ISE, it forms part of science, and is therefore also an integral part of “becoming a scientist” nowadays (Wood, 2001).

Medical English instruction at Belgrade University School of Medicine is in its 20th year. It is compulsory in the first and second years. A graded examination after the second year was changed to a pass/fail evaluation in 2005. Until 2000, translation from and into English had been included in such exams, but was replaced by reading comprehension. Classes are mostly

in English, and translation is still a part of the course because physicians must be able to recognize different medical genres and structural differences between English and Serbian. Today, this new content-based approach therefore includes grammar, vocabulary, translation and reading comprehension. This paper explains why we still continue to teach medical translation. Relevant translation objectives and recommendations are outlined.

## **A brief history of Medical English instruction at Belgrade University**

Our main principle is to build upon our students' high school English, develop cognitive academic competence, and discipline-specific language competence, in line with recommendations by Chimbanga in the African context (Chimbanga, 2000).

We differentiate between courses for young students and courses for doctors. Those for the former are “wide-angle courses”, developing broad skills for the future. “Broad” means that a range of target events are covered, whilst “narrow” implies concentrating on one or two skills (Dudley-Evans & St John, 1998). Traditionally, medical English courses for young students have focused on reading; but now speaking and listening are considered equally important. From 1987 to 2004, the grammar-translation method was dominant, whilst the main feature since 2004 has been content-based instruction. According to Wang and Bakken (2004), ESL learners' perception of English courses is restricted to instruction in grammar; they have little knowledge of audience awareness, rhetorical patterns, coherence, tones, and composition skills and strategies, and initially our students were no different.

The grammar-translation method implies that the students are taught the target language based on their native language, Serbian. This requires high linguistic and grammatical awareness. Rather than to situations, students link what they want to say to the equivalent source language structures, and it takes much longer to become fluent in the target language. With this approach, however, they learn how to use tools such as grammar books and dictionaries, and how to adequately decode new structures. Our students were expected to translate from English to Serbian and vice versa. They performed well translating into Serbian, but not into English, and this affected examination success. Teaching students to learn structural sentence

patterns did not, however, enable them to use those patterns in communication. In 1999, this approach was considered outdated, and was gradually abandoned in favour of a content-based approach.

A content-based approach means that what is read and why it is read are determined by the need to acquire particular information rather than to learn a discrete language point. Content serves as the principle for determining course content (Kirschner & Wexler, 2002). To achieve the primary goal, students must perceive an improvement in their English vocabulary and reading fluency (Kirschner & Wexler, 2002). The content should derive from the students' major academic discipline and physicians need to be able to read the literature in their field in English with proficiency. In EAP courses in EFL settings, reading remains the primary focus, complemented by speaking, listening and writing (Kirschner & Wexler, 2002). The aim is to encourage them not to translate everything into their native language so they develop a feel for the target language similar to that for their native language. This is known as the "communicative" approach. Classes are mostly in English; moreover, translation into Serbian is still a part of the course, and is considered necessary. The combination of a contrastive and a communicative method has been successful and involved developing a new textbook based on authentic materials focusing on the communicative approach (Micic, 2007a).

Training focuses on three goals: (1) text structure in different languages; (2) languages for specific purposes (LSP); and (3) the special domain –i.e., the medical register. Text structure is often complex and represents a major difficulty. Reading and re-reading of short texts with different subjects, and parallel reading of textbooks in the source and target languages are used. Idiomatic and idiolectic aspects, such as special terms, false friends, and eponyms need explanation, as does the effect of source language and poor writing on the way medical terms are used in texts. Training therefore involves intensive use of printed and electronic documentation, and instructors must ensure that connections between language and subject matter knowledge are made, and that information transfer encourages and stimulates the creativity of the students to seek expert advice when necessary (Lee-Jahnke, 1998).

## **The role of translation in the Serbian curriculum**

Our students are studying medicine not translation, but still need to develop language awareness. Because language is closely related to subject-matter knowledge, translators must know the subject they are addressing, not only to master translation problems successfully, but also to identify potential pitfalls (Berghammer, 2006). It is definitely productive to give them exercises on new subject matter at the beginning of the training so they gain a better understanding (Reeves-Ellington, 1998). Selinker (1979) proposes nine areas for instruction: common language words used technically, relative strength of claims made by language users, contextual paraphrases, grammatical choice, modal words, rhetorical structure, punctuation structure, and connectives (Douglas, 2002). Translation requires more than exchanging terms or phrases between languages, adhering to grammatical rules, and choosing the appropriate register. It is a meaning-focused activity concerned with mental processes of analysis and synthesis, communicative language use, the reproduction of structured discourse, and the sharpening of comprehension skills (Al-Kufaishi, 2004).

## **The role of lexicon within the teaching of English translation in the Serbian curriculum**

Vocabulary learning and teaching relate to both receptive understanding of language and its productive use. Difficulties arise from lack of vocabulary and confusion between similar-sounding words (Jordan, 1997). In ESP/ISE, differences are made between terms or specialist vocabulary and semi-technical, subtechnical or context-independent academic words that occur with high frequency across disciplines (Jordan, 1997). Words can have special meanings in specific fields, or one or more “general” English meanings, or have an extended meaning in specific fields (Trimble, 1985). Students must be aware of the difference between sub-medical and proper medical terminology because the choice depends on the audience (Wakabayashi, 1996). Coxhead and Nation (2001) write about four categories: high frequency words; the academic vocabulary (sub-technical vocabulary); technical vocabulary; and low frequency words.

Greek and Latin are still the basis for medical terminology (McMorrow, 1998) because they are precise and internationally comprehensible (Berghammer, 2006). Greek- and Latin-based terms can be analysed from prefixes, roots and suffixes so that the meaning is readily understood (for

instance, “ultramicrotomy”: “ultra” = “excess, beyond”; “micro” = “minute, small”; “tomy” = “cutting” (hence, “the technique of cutting into very thin pieces”). There is no widely accepted language of medicine in medical publications in Serbian. Popular terms once tended to be used, but this is not justified as such publications are written for professionals (Slavkovic, 2004). When writing for a scientific journal, one Serbian author may use the term *rilizirajuci hormon*, another *oslobadjajuci hormon*, and a third *liberin* (Micic, 2004) to mean “releasing hormone”.

Terms are often cognate with the equivalent term in the students’ first language and only pose pronunciation difficulties (“diagnosis” = *dijagnoza*, or “pneumonia” = *pneumonija*). Non-cognate terms, especially subtechnical concepts, need explanation and a different pedagogical approach (“history” = *anamneza*, or “strain” = *naprezanje*). English has a synonym in everyday speech for many medical terms, such as “hemorrhage/bleeding”, or “myopia/shortsightedness”. The choice of word depends on the audience. A major difference between scientific Serbian and scientific English is the former’s partiality for the learned word (“itching” = *pruritus*, “clotting” = *koagulacija*).

The third lexical feature of ESP/ISE are noun strings plus necessary adjectives (less often verbs and adverbs) forming a concept with a “single noun” idea (compounds). The English language of medicine is full of such compounds. The fast growth of scientific knowledge in the past half century has generated many new terms, particularly multiterm words, such as “chronic obstructive pulmonary disease” (Berghammer, 2006). Attempts to translate compounds into a language that does not compound usually result in long and unwieldy phrases (Trimble, 1985). Examples: “gonadotropin-releasing hormone” = *hormon koji oslobadja gonadotropin*, “arsenic-fast virus” = *virus rezistentan na arsenik*.

Vocabulary may be gathered to facilitate cognitive processing in three ways: first, as situational and metaphor sets; second, collocations –lexical sets, the members of which collocate with each other; and, third, lexical phrases –chunks of language that are characteristic of genre moves (Dudley-Evans & St John, 1998). Lists of technical terms can be developed by compiling dictionaries or by using corpus-based frequency counts (Coxhead & Nation, 2001). The latter is very relevant for technical writing because of subtle usage differences (Kerans, 2006). The original text should sound as “natural” as possible in the target language, meaning that word-for-word translation is inappropriate. Translators learn to identify units of meaning, usually

collocations. Collocations and their target language equivalents belong to the implicit knowledge gained by experienced translators. In this sense, corpus linguistics tells us that translation equivalence is not something that latently always exists: translation equivalence has to be construed (Teubert, 2004).

Monolingual and bilingual dictionaries play a critical role in translation and its teaching. Many students use bilingual dictionaries, but need to be able to use monolingual dictionaries to be advanced users of the language. Bilingual dictionaries provide synonyms, and it can be difficult to select the best. Monolingual dictionaries provide guidance on usage, style, and context of use (Jordan, 1997). In-depth medical knowledge is necessary to enable fine judgments on the appropriateness of a term (Wakabayashi, 1996). By using examples, students also benefit from instruction in verb pattern codes, the use of prepositions, phrasal verbs, (un)countable nouns, by using examples (Huang, 1985; Jordan, 1997).

Scientific dictionaries need to be frequently updated. Glossaries from companies, specialized articles from the medical press, research reports, and medical textbooks available in several languages are therefore also basic reference works (Lee-Jahnke, 1998). The basic meaning of a word in a dictionary may not be the same as the meaning it will have in the context in hand (for instance, “ambulance” is not *ambulanta* (“ambulatory service” or “outpatients’ department”) but “vehicle for patient transport”). Knowing the current blend of standard English from all scientific and technological sources, including new eponyms, acronyms, abbreviations and trade names is just as important (McMorrow, 1998). This principle has been applied in a new bilingual Medical dictionary by Micic (2007b).

### **The level of discourse within the teaching of English translation in the Serbian Curriculum**

Even if a student has a good bilingual dictionary, this is not enough. Translation errors often occur because words are not translated in isolation and the context almost always has some effect on the meaning. For example, the term “cervical cancer” is usually translated as *rak vrata* which is an incorrect equivalent meaning “cancer of the neck” (not the neck between the head and body). The problem of “meaning” can be traced back to the rigidity and frequent irrelevancy of meanings given in dictionaries (Sinclair, 1998).

Translated texts also often show signs of source language interference, leading to inauthenticity, but grammatical and lexical features in both the

target and source languages may be equally authentic in both (James, 1999). The student must also know that the core purpose of specialised medical texts consists of an exact description and classification of concrete phenomena: objectives, changes, analytical processes, measures to be taken, methods, causes and effects (Lee-Jahnke, 1998).

Features of scientific texts are: nominalization of verbs and adjectives, technical terms, extended nominal groups, tentative language, causal and reasoning verbs, and impersonal language and passivisation (Parkinson, 2000). Medical writing style implies a certain degree of impersonality, avoidance of prolixity, exact description, fixed methods of reporting, hypothesising (McMorrow, 1998), and conveying the impression of objectivity (Nash, 1990). For example, “He was discharged home in good condition” is a common phrase, and it would be inappropriate to transform it into “They discharged him home in good condition.” Knowledge of the phraseology of the genre (i.e. a command of the semi-prestructured phrases that occur in medical papers) will help students to understand and create meaning (Marco, 2000). Medical jargon is full of sequences of words and idioms which may sound unusual in everyday speech. For example, the phrase “the patient complains of ...” has nothing to do with the patient “complaining”, but means that the patient “is presented with”. Case reports follow strict conventions that determine the phrases used to describe a particular medical situation. For example, “The postoperative course was uneventful”: the term “uneventful” cannot be literally translated. To change or ignore the standard phrases is to fail to adhere to the conventions of the target text, making it sound less professional and perhaps even compromising its scientific credibility (Berghammer, 2006). Still worse, inaccuracies in medical translations may have serious clinical consequences (O’Neill, 1998).

Ribes and Ros (2006) advise against translating papers from native languages into English; instead, authors should write in English directly, based on a published article that closely resembles the paper they wish to produce. Traditional translation activities in the classroom are aimed at a single and particularly biased reader: the teacher. The artificial character of this situation may lead to a lack of motivation in producing texts that would appeal to other potential readers. The instructor’s feedback also influences the student’s performance (Lee-Jahnke, 1998).

Translation as part of a comprehensive course is used to highlight rhetorical devices that give prominence to items of information in an argument (Al-Kufaishi, 2004). Sometimes it is needed to (self-) diagnose problems with



complex sentences and highlight areas of language that need further study (grammar or vocabulary) or the appropriate style (abstract). The aim is also to help students gain a sense of when they really need to translate, because some take time to translate out of habit, even though they have already understood a phrase (although some always will translate). Translation practice also helps students to gain deeper understanding of abstract information structure and research article design and structure.

### **Some suggestions for the improvement of medical English translation in the Serbian curriculum**

Translation is an activity that has to be repeated. After students have produced a first draft, teachers should pose questions in the margin, underline problem areas, suggest alternatives for consideration, suggest terminology research strategies (bilingual medical dictionaries, encyclopaedic dictionaries, textbooks, articles, Internet searches), and suggest where they might need help with concepts. Grammar is of secondary importance. Students should be encouraged to show their translation to an expert in the medical field in question for their opinion. Our experience has shown that students gain adequate experience from instruction in translation from English into Serbian. Translation exercises from Serbian into English have provided little benefit because they seem to be too linguistically demanding for medical students who are trained to become medical doctors, not professional translators.

We should follow recommendations for problem-based teaching:

- encourage independent thinking and the recognition of strengths and weaknesses
- foster critical self-evaluation skills
- build self-confidence
- develop flexibility and adaptability
- improve capacity for learning in general (Waters & Waters, 2001).

When faced with the problem of finding equivalents for terms not listed in medical dictionaries, basic recommendations are (Wakabayashi, 1996):

- make use of all the information in the text.
- use a reverse medical word-finder, which works backwards from a definition of the term.

- read English texts on similar topics and select plausible terms that seem to fit.

Completion of words in an English text with an appropriate term (multiple choice or blanks) is an excellent exercise (Wakabayashi, 1996).

Adult learning is facilitated by mutual understanding and a respectful context. Collaboration and learning with peers and partners who have shared goals and diverse perspectives encourages persistence and application which helps adult learners become more reflective, confident, and self-directed (Merriam & Caffarella, 1999; Wang & Bakken, 2004).

Team-teaching is also of the utmost importance. Team-teaching means that the language and subject teachers work together in the same classroom (Dudley-Evans, 2001). Thus EAP teachers can only deliver work effectively if they have the active cooperation of subject teachers, inside and outside the classroom, with regard to content and expectations. Swales (1988) summarized the roles of the three participants, the students, the subject teacher and the language teacher as follows: the language teacher prepares the material for the session in co-operation with the subject teacher and runs the session; the subject teacher is an advisor clarifying the points about the subject and evaluating the students' contributions, and the students raise questions (Dudley-Evans, 2001). Other developments in team-teaching include sessions on writing of classroom genres such as examination answers, project reports or the dissertation (Johns, 1995), and an experiment in Slovenia where the language teacher co-operated with subject teachers in the department of Chemical Education and Computing (Vukadinovic, 1998). The latter model increased the relevance of the English class and enabled a number of "grey areas" to be covered (like the structure of a laboratory report), and also reduced the problem of the isolation of the EAP teacher. EAP courses developed in isolation run the risk of losing their dynamism (Dudley-Evans, 2001). Co-operation and collaboration between experienced applied linguists and specialists in the subject matter on all levels are therefore paramount (Benfield & Feak, 2006).

## Conclusion

Good translation requires good knowledge of the mother tongue and the foreign language. Major problems with this in Serbia are insufficient competence in Serbian and the unstandardised Serbian "language of

medicine". Both make the Medical English instructor's work truly challenging. In our courses, translation exercises into Serbian allow us to diagnose language-related comprehension problems so that we can take appropriate action. The focus of our courses is on active peer group discussion of real texts. Our students often resort to translation whether we think they need to or not; our aim is to give them the right guiding principles when doing so. Translators are their own lexicographers; this implies constant and intensive reading of the medical literature in both languages (Van Hoof, 1998). Research is needed into the way words behave in certain subject areas and the general discourse functions of academic vocabulary (Coxhead & Nation, 2001). The necessary knowledge of the subject matter may be acquired through reading the relevant reference material which is easy to obtain. We want our students to become good technical translators with our guidance for their own purposes. They should be aware that although they may be proficient in English and good experts, they are not technical translators, and should know when to seek the help of expert medical linguists.

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#### **NOTE**

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