

REPORT ON THE PREPARATION OF TEACHING MATERIALS FOR THE COURSE *TEACHING AND ACADEMIC WRITING IN ENGLISH FOR NATURAL AND MATHEMATICAL SCIENCES (TAWÉ)*

The preparation of teaching materials for the TAWÉ course was related to the project activity 2.3. (preliminary creating of course materials), and partly to the project activity 3.4. (course implementation).

General data: In order to increase capacities of teaching staff in natural and mathematical sciences for teaching and academic writing in English and thus provide better options for internationalization of the HEIs, both at the institutional and personal level, the team of three teachers from the University of Niš, Faculty of Philosophy, designed an intensive, specialist course entitled *Teaching and Academic Writing in English for Natural and Mathematical Sciences (TAWÉ)* and the appropriate teaching material for it.

TAWÉ course is based on the material carefully designed to cover crucial aspects in teaching academic courses in English and better academic writing in English in the fields of natural and mathematical sciences (the use of class language, instructions for effective lecturing, organizing interactive lectures, the use of teaching tools and visual aids, the forms of academic writing, differences between spoken and written academic genres, etc.).

The TAWÉ course has its predecessors in three series of EMI courses implemented at four largest state universities in Serbia (Belgrade, Novi Sad, Niš, Kragujevac). The first one was in 2016, within the Tempus project *Fostering University Support Services and Procedures for Full Participation in the European Higher Education Area (FUSE)*, coordinated by the University of Niš. The other two were within the National Erasmus+ initiative *Study in Serbia* (2019 and 2021). The participants and the EMI lecturers were university teachers from the same four participating Serbian universities as in TeComp project. A small portion of the open source material used for these courses was used for TAWÉ, but the majority of the TAWÉ material, primarily the handbook, was specially written, designed and adapted for this project.

The course material was prepared in the activity 2.3, and partly during the course implementation in the activity 3.4. The primary course material is TAWÉ course handbook, written by the three instructors (Mišić Ilić, Đorđević, Tatar 2021). It was printed and distributed to course participants, and also uploaded as a pdf in the Google classroom dedicated for the course implementation as *Teaching and academic writing in English - TAWÉ.pdf*, available for course participants at <https://classroom.google.com/u/0/w/NDY2OTA0Tc3ODcx/tc/NDY2OTA0Tc4Nzk3>. A lot of additional material in the form of PowerPoint presentations created by the three instructors, illustrative videos from open-access reliable and high-quality sources, open source additional books and articles, and a list of useful links was also provided in the Google classroom, at <https://classroom.google.com/u/0/w/NDY2OTA0Tc3ODcx/t/all>.

The theoretical background of the prepared course material: The TAWÉ course, and the material prepared for it, is based on the theoretical principles of English for Specialized Purposes,

ESP and English (as a) Medium of Instruction EMI. ESP is an approach to English teaching that identifies and targets current and/or future academic or occupational needs of particular learner populations, focuses on the necessary language, genres and skills to address these needs, and designs courses whose content and aims are oriented to the specific needs of the learners, using general and/or discipline specific teaching materials and methods. The subfield of ESP known as English for academic purposes (EAP) focuses on ESP in academic settings.

The term *English Medium Instruction* (EMI) is usually defined as “the use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language (L1) of the majority of the population is not English.”

As TAWÉ is a specially tailored course for natural and mathematical science, the teaching material makes use and includes authentic and adapted examples from reliable scientific sources in these scientific fields.

The time scale: The course material was prepared in two phases. First, the three instructors designed the draft course syllabus, and wrote the first version of the TAWÉ handbook (July-September 2021). After the needs analysis of the potential participants in September 2021, the final version of the TAWÉ course handbook was completed in October 2021. It was printed later in 2021. In the next stage, prior to the course implementation, the three instructors designed PowerPoint presentations and adapted other material to be used in online classes during the course (March 2022). All the material was uploaded in the TAWÉ Google classroom in March 2022.

The content of the course material: The course syllabus is provided in the Google Classroom at <https://classroom.google.com/u/0/w/NDY2OTA0OTc3ODcx/t/all>.

TAWÉ teaching material and the course for university teachers of natural and mathematical sciences, as specified by the *TeComp* project requirements, cover two main areas, to build two different, but interrelated kinds of competences – university teaching in an English Medium Instruction (EMI) environment and discipline-specific academic writing in English. The components of *TAWÉ* include EMI topics, academic writing and focus on English, appropriate in genre, style and medium.

In particular, the theoretical aspects of EMI, academic writing and vocabulary study are kept to a minimum, while the course participants are invited and encouraged to reflect upon, discuss and do many practical activities relating general principles to their academic and professional setting and their work situation. Illustrative videos as well as segments of academic articles from open-access reliable sources are provided, accompanied by guided questions, which promote noticing, reflection, teaching strategies and language study. They were carefully chosen to demonstrate the style differences among natural sciences and mathematical sciences, and for discipline-specific individualization. Special attention is devoted to genre and language differences between spoken and written language, i.e., between EMI teaching and writing academic articles in English.

The material is not intended to give standardized, general solutions, but to provide guidelines and stimulate self-reflection, so there are no answer keys for the numerous exercises. This could, hopefully, lead to individual solutions which are most suitable for various particular contexts,

depending on institutional policies, local academic contexts, scientific disciplines, as well as the individual characteristics and preferences of the teacher.

Sustainability: As the course is officially accredited in the Centre for professional education at the Faculty of Science and Mathematics, University of Niš, the handbook may be published as a book by the University of Nis, and used for further courses.

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