WP3 – Development of techniques for the implementation of the remote teaching and training process with the use of support tools

IO.4 – Development of a methodology for conducting lectures

The task will be carried out within the package WP3 (Development of techniques for the implementation of the remote teaching and training process with the use of support tools). Within this task, a methodology for conducting lectures in remote and hybrid mode will be developed. Its main objective will be to develop rules for selecting appropriate forms of communication in such a way as to best serve the presentation of substantive content and support student attention and involvement in the distance learning mode.

The following forms of communication will be analysed: lectures in the form of real-time webinars, pre-recorded lectures with a presenter on screen, lectures supported by multimedia and interactivity, lectures supported by a presentation, including multimedia presentation containing: films, interactive animations and interactive graphic simulations, and lectures with elements of instructional exercises. Methods of using external film and animation will also be defined.

The methodology of selecting the duration of individual parts of the lectures in remote mode will be developed in such a way as to maximise student concentration and engagement, in accordance with, e.g., the research by N. Geri, A. Winer "Learning Analytics Performance Improvement Design" indicating that attention drops significantly after 15 minutes of participation in a remote lecture. The teaching methodology will also be based on the *"active learning"* method, in which students or trainees are actively involved in the learning process and in which different levels of learning, depending on student involvement, are distinguished (Bonwell and Eison 1991).

The developed methodology will also address the problem of reduced motivation associated with isolation and lack of interaction with the teacher and the group during distance learning. This difficulty is mainly associated with a reduced emotional response when learning solely online. In addition, the remote lecture form often limits access to the necessary feedback - the inability to observe students as a group and the inability to observe non-verbal communication make it difficult to adapt the lectures to the individual needs of the recipients. Within this task a set of methods and tools will be developed to support the students' engagement and feedback, i.a. through appropriate use of dedicated applications and tools including real-time communication solutions.

Target groups:
Research and teaching staff from institutions involved in the project and ultimately other European institutions.

Innovative elements:
Development of a methodology for conducting lectures remotely and in hybrid mode, in a way that allows for maximum engagement and concentration of the student.

Expected impact:
The developed methodology will enable the effective conducting of remote lectures both with and without the requirement of social distancing related to the epidemic threat. It can be applied in the teaching and training process throughout Europe.

Transferability potential:
The prepared methodology in the form of instructions and a developed handbook will be available on an online platform, for the use of academic teachers throughout Europe.

The division of work:
The work will be divided among all consortium participants and will include:

- defining didactic scenarios,
- identifying problems occurring during distance learning,
- developing solutions,
- preparation of publications summarising the completed work.

The tasks leading to the production of the intellectual output:
The leading institution (GUT) will be responsible for supervising the development of remote lecture methodology. Consortium participants (apart from AAU) will cooperate in the development of these resources, exchanging their knowledge and experience.

Applied methodology:
Within this task a methodology will be assembled and developed for conducting remote lectures along with a presentation of detailed didactic scenarios and instructions on the use of support tools, techniques and applications.