

WP2 Implementation I: Modular Curriculum Development & Teaching Capacitation



Document Information

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Development of innovative multilevel formation programs for the new water leading professionals in Southeast Asia

Proposal Acronym:

INOWASIA

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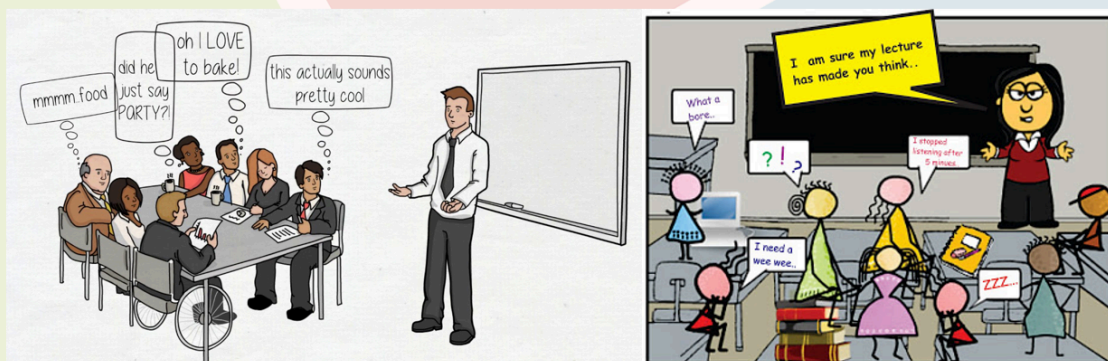
Acronyms

PBL	Problem-Based Learning
HEI	Higher Education Institution
SEA	Southeast Asia

PBL methodology

The innovative methodology used for the implementation of the new courses/modules in our SEA HEUs is called Problem-based learning (PBL). PBL is a student-centred methodology that let the students to acquire key 21st century personal skill. PBL is a semi-autonomous cooperative learning process in small groups where (real) complex situations are discussed in group instead of lecture-based classes. PBL places the student at the forefront of the learning process by transforming the teacher into a coach who probes and challenges students towards constructing knowledge. Students formulate and pursue their own learning objectives by researching a situation, developing appropriate questions, and producing their own solution to an open problem. They learn concepts instead of just absorbing facts. These enquiry-based teaching methods engage students in creating, questioning, and revising knowledge, while developing their skills in critical thinking, collaboration, communication, autonomy, and creativity. The PBL material includes local real case studies and complementary hands-on activities such as field trips, lab practices or simulation studies.

Teacher-centred education

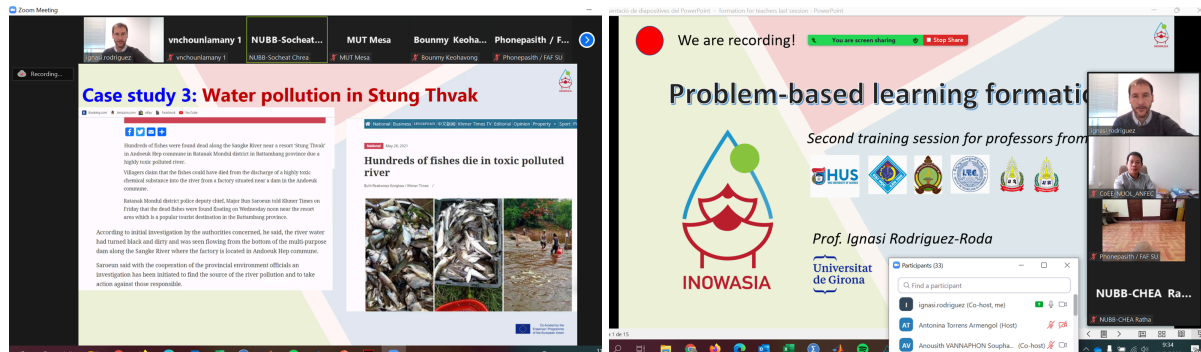


The teacher talks while the students basically listen
Students put all their focus on the teacher and on the exam

ARE THE STUDENTS ENGAGED? MOTIVATED?
ARE THE STUDENTS WORKING AND ACQUIRING 21st CENTURY SKILLS?

PBL teacher training

PBL training was done in several steps. First, virtual training was offered by UdG to the staff of all INOWASIA partners in a 2-hour session. Then, a more detailed 4-hour training in two sessions was done for each Asian Country. This training included homework and a final exam, with the possibility to get a diploma for the attendants who pass the exam.



Once mobility was allowed, face-to-face PBL sessions were carried out. During the first consortium trip to Europe the partners received a practical session from UdG about PBL implementation, and during the consortium trip to Vietnam, a 2 hour-session was carried out for Can Tho University teachers.

Finally, three specific missions to Cambodia, Laos and France were done by UdG to train teachers from ITC, NUBB, SU, NUOL and UT3 with theory, implementation, a case study and a final exam to get a diploma on PBL methodology.

More PBL training is planned for 2023, with UdG specific missions to FSUB (Barcelona) and to IRD (Montpellier) and taking advantage of the consortium trips to Laos and Cambodia.

The ppt material used for teacher training (available in INOWASIA GD <https://drive.google.com/drive/u/1/folders/1bRUHruvfbCjZRE0qwiGjCWWQjBh2YFt->) follows the following structure:

- Brief presentation of the INOWASIA Erasmus+ project
- Suitability of the methodology for the water resources sector
- Theory about Problem-based learning methodology
- Practical implementation of the Problem-based learning methodology

- A case study (for short courses the case study was presented by the teacher and discussed among the attendants, for long courses the students had to prepare and present the a PBL case study)
- A short questionnaire

Around 200 teachers from our consortium have been trained with PBL methodology and are ready for the implementation in their universities. This is the example of the diploma that the teachers received once they pass the final exam.

