

Research by Dr. Veronica Baldasso

Participant Information Sheet

Name or topic of the research project

A framework for designing an interdisciplinary circular economy course for water education. Content, teaching and learning approaches.

General description of study method, including the research group's experience, if any of the method*Study overview:*

The aim of this study is to develop a framework for designing circular economy courses at higher education institutions, through the holistic understanding of relevant stakeholders' perspectives and pedagogical strategies.

We are looking to find out what are the most applied teaching strategies and methodologies in education for circular economy and what are the most effective tools to transfer circular economy competencies to students. Additionally, our aim is to utilize understanding about interdisciplinary courses and learning approaches for students with diverse backgrounds.

For this, we are proposing and facilitating a workshop to collect data and insights from academic professional in higher education institutions that have, are and/or will be involved in teaching interdisciplinary topics such as circular economy, designing courses on circular economy and/or integrating its contents in existing courses. You can express your interest in participating in the workshop by accepting the electronic calendar invitation sent via email.

The data collected will be coupled with scientific literature data on strategies and methodologies for Education on Circular Economy in Higher Education Institutions to develop a holistic framework (and toolkit) for Circular Economy course design that can be used as guide by all educators involved in circular economy education. For information on privacy, data usage, and data protection, please refer to the Data Privacy Notice (Workshop).

Research team expertise:

The PI and coordinating researchers possess extensive knowledge and experience in empirical research design, research methodology, and data analysis (e.g. statistical analysis) methodologies. They also have extensive experience in conducting rigorous research. The PI, Assistant professor Mikola, also has extensive experience in managing research projects, supervising and advising postdoctoral researchers and doctoral students. The PI also has a broad range of experience in teaching engineering courses and collaborating with industrial partners, thus can provide both disciplinary and contextual knowledge to the study. The participating researchers (Dr. Taka and MSc. Sundman), who are an integral part of the research team, have extensive knowledge and experience with the study's research methodology (survey and interviews) and data analysis strategies (thematic analysis and others), as shown by their many publications in the field of higher education. Their knowledge and experience will help to ensure rigorous design and implementation of data collection with defined methodologies. The overall knowledge and experience of all the researchers in the team in conducting rigorous, high-level scientific research will provide a strong foundation for the successful outcome of the study, ensuring its quality and impact.

Purpose of the research

The purpose of the research is to develop a framework and toolkit for designing an interdisciplinary circular economy course at a higher education level that can be applied to any technical field. The study will use the development of a circular economy course focused on water and environmental engineering as a case study. It will examine the course content, including knowledge, skills, and competencies, as well as the teaching and learning approaches. Input will be gathered from professionals in the fields of water and environmental engineering, circular economy, and academia (including educators/teachers).

Funding or financier(s) of the research

This study is funded by Profi6 T3 Co-innovating circular systems from Research Council of Finland.

Compensation (or lack of) paid to research participants

No compensation will be provided for participation in the study.

Voluntary nature of participation, right to discontinue participation at any time without obligation to disclose any specific reasons for discontinuing; research data collected up to the time discontinuation may still be used.

Participation in this workshop is voluntary.

You can discontinue your participation in the workshop at any time. Should you decide to discontinue your participation, you will not be subject to any negative consequences, but information gathered up until the point of cessation of your participation may be used in the study according to the Data Privacy Notice (Workshop) and the applicable data protection legislation.

Possible risks and their prevention

In the context of this study, the possible risks are primarily around mental and social aspects. For example, you may perceive the workshop as an additional demand on your time and thus might be worried about the effort required. Also, you may have concerns that the discussions and activities included in the workshop could potentially disclose views or information that might affect your professional reputation or relationships within your field or institution.

To address these potential risks, we implemented several mitigation strategies. Firstly, participation in the workshop is voluntary, allowing you to discontinue your participation at any moment. Participation in workshop discussions is also voluntary, and you may choose not to take part in them. The workshop will be scheduled during working hours on Aalto's University premises, in order to facilitate participation. Additionally, for everything concerning privacy, data usage, and data protection, please refer to the Data Privacy Notice (Workshop).

Communication with the research staff

You have the possibility and right to contact any of the researchers during the workshop, and the coordinating researcher (Dr. Baldasso) at any point. You can find the contact details below.

Description of research situation (how long it will take to participate, etc.)

The data collection phase, which will involve the workshop, will last between one to two? hours and will take place at Aalto University premises. The participatory workshop will be conducted in the format of small group brainstorming (using pen and paper) with a focus on designing appropriate learning objectives, teaching and learning activities, and assessment strategies appropriate for interdisciplinary subjects such as circular economy. The participatory part of the workshop will be preceded and followed up by plenary discussion led by the workshop facilitators.

The person in charge of the research study

The contact person in matters related to the research study:

Veronica Baldasso, veronica.baldasso@aalto.fi