

Case-Study Approach- Example Task

This is a task given to students in an interdisciplinary course at the University of Twente.

<https://www.utwente.nl/en/education/student-services/news-events/news/2022/6/678748/transdisciplinary-cbl-minor-icrtist>

The course is structured as challenge-based learning. <https://www.utwente.nl/en/cbl/>

Students across the university engage collaboratively in solving a real-world challenge. As part of the support for addressing that challenge students attend various workshops, including one on interdisciplinary research. In that workshop students are asked to provide a PPT presentation using the case study analysis below.

Task Description

For these exercises we look at cases of cross-disciplinary research and think about how we might categorize them as multi-, inter-, or trans-, but also analyze the cases in terms of each discipline's contribution, how the disciplines are related, and which disciplines are in the lead and set the agenda.

1. What are the goals of the research and describe the overall methodology the best you can?
2. Which disciplines are involved? Are they easily identifiable? (Are social sciences involved?)
3. How are these disciplines linked in the research? (what are the roles; what information is exchanged; what scientific products are exchanged or shared etc)? Try and draw a schematic to represent the relations. Is this in your view an ID or a MD project?
4. What leverage is gained on the overall problem by combining these disciplines in this way?
5. Is this collaborative work? What benefits do the different collaborators get for being involved? Does it advance their own disciplines in any way?
6. Is there a discipline clearly in control of the research agenda?
7. Is there a transdisciplinary dimension? How does it work? How much engagement do stakeholders have in the research itself?

Task

Prepare a brief PPT in pairs for the group answering these questions. Use the papers below.

Papers:

Case Study 1: Gamification Procedure Based on Real-Time Multibody Simulation (Gamification paper)
<https://doi.org/10.15866/iremos.v11i5.15267>

Case Study 2: Green space, soundscape and urban sustainability: an interdisciplinary, empirical study
<https://www.tandfonline.com/doi/full/10.1080/13549830802522061#:~:text=https%3A//doi.org/10.1080/13549830802522061>

Case Study 3: Synthesizing building physics with social psychology: An interdisciplinary framework for context and occupant behavior in office buildings
<http://dx.doi.org/10.1016/j.erss.2017.08.002>

Case Study 4: Integration of biological, economic, and sociological knowledge by Bayesian belief networks: the interdisciplinary evaluation of potential management plans for Baltic salmon
<https://doi.org/10.1093/icesjms/fsr004>

Case Study 5: Coupled component modelling for inter- and transdisciplinary climate change impact research: Dimensions of integration and examples of interface design. (Ski Tourism paper)
<http://dx.doi.org/10.1016/j.envsoft.2014.06.014>

Case Study 6: An interdisciplinary study to explore impacts from policies for the introduction of low carbon vehicles
<https://doi.org/10.1080/03081060.2013.844904>