Crossing 2 Communities (X2C) – Final Report

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1. Milestone 1 – Goal achievement in Phase 1

Crossing to Communities (X2C) aims to develop student-led exploration and diagnosis of local sustainability challenges through challenge-based learning together with communities. In addition, it is one of the first education modules at the UT to build on Education for Sustainable Development principles, a holistic learning approach promoted by the United Nations and recognised in 17 SDGS and the Paris agreement. This course was developed with two goals in mind: (1) content development and (2) finding a location for the educational elements in UT/BMS curricula so that it could be piloted in the academic year 2021/22. In the first part of the project, we developed a draft syllabus that was specific enough to use in negotiations with partners yet flexible enough to allow for different operationalisations (appendix 1). We have also developed a one-pager for distribution to interested parties across the UT (appendix 2). The second goal of finding a suitable location took most of our team's time in the first phase. Initially, an agreement was reached with the team teaching the Crossing Borders minor that X2C could act as one of the options for students, next to fieldwork abroad, but this drew an only a minimal response. In an effort to reach more substantial numbers of students, we explored the option of establishing a new minor at the UT but concluded that this would make X2C a competitor for many existing minors in a fixed pool of students. We then started pursuing options to develop X2C in the framework of UT's honours education as it is a very valuable experience for interdisciplinary groups to get acquainted with sustainability problems and to work with a community or hard-to-reach group. As we would like as many students as possible to benefit from this experience, we preferred undergraduate (bachelor) education to master course elements.

2. Milestone 2 – Goal achievement in Phase 2

The requirement to be flexible in terms of format and location served us well in the first phase, but it did make it harder to deliver on the actual content of the course. In the second phase, we went in two directions to address this issue. First, the team developed a core course on sustainability challenges more generally (5 ECTS). We have focused in particular on giving an overview of the climate- and biodiversity crises and the kinds of conceptual and political tools that are needed to understand and address them. Five course components stood out:

1. What is at stake in the climate crisis and the biodiversity crisis?
2. What are the political, societal and technological levers to address sustainability challenges? Special attention was given to four decades of inadequate environmental policymaking and the promises and pitfalls of technologies for sustainability.
3. How does systems thinking allow us to reveal the interrelations between social, political, economic and environmental processes?
4. How can we include citizens in a challenge-based setting, with a focus on the entrepreneurial inclusion of citizens (social entrepreneurship); the academic inclusion of citizens (citizen science) and the political inclusion of citizens (citizen assemblies).
5. How can challenge-oriented methods of qualitative and quantitative action research be used to understand group dynamics in interdisciplinary settings?

In order to develop a high-quality course, we leveraged the principles of *constructive alignment* to ensure that the learning objectives (focused on answering the above questions and acquiring complimentary competencies), course content, learning activities and assessment methods are aligned.

In addition to the core course, second, the team worked on singling out some key sustainability challenges that students could work on more autonomously in the remainder of the honours programme (10 ECTS). In the first phase of our project, we already briefly outlined a number of challenges to convey what we meant by challenge-based learning. The overarching theme back then, was the post-covid recovery of vulnerable groups in the Twente region. Our take on this shifted in the meantime. For one, we are definitely not 'post-covid' at the moment. In addition, the sentiment of both student- and staff members of our team was that covid is not particularly attractive as an overall focal theme on top of the challenge it already poses in real (student) life. From there, we set out to develop new sustainability challenges that students could address such as energy poverty and fast fashion, to flag two of them. The European Green Deal singles out energy poverty – the inability of large (vulnerable) groups of citizens to keep their houses warm – as a serious challenge that has normative, technological and political ramifications. Fast fashion is a similarly wicked problem that holds together issues of waste, overconsumption, pollution, political action and technological (im)possibilities. To make it a real challenge-based learning module, finally, we also developed a format that students can use to translate our broader descriptions of a wicked sustainability problem into a regional challenge that an interdisciplinary group of students can explore and address.

The end result of the second phase is an elaborate course manual that now includes both general principles of challenge-based learning, education for sustainable development (including the focus on key competences), integrated seminars and lectures and a number of well-developed challenges. The following phase will be to return to our attempt to find a home and see to it that all practicalities are met to make X2C a success. In the initial action plan, the piloting of X2C as an elective course was foreseen for the first semester of 2021/22. That might be too soon as we still have to work out many practical arrangements – such as a core team of teachers, among them. We will further develop the core course and start a try-out at the UT summer school.

3. Staff developments

The team was changed slightly in the second phase. Our members from the CHEPS section in BMS (Anete Veidemane, Guus Dix) were still involved, as were the members from UT's Green Hub (Alex Baker-Friesen, Ivona Glišić). To further strengthen the team's competencies in group dynamics that is key to the challenge-based learning (CBL) educational offering, Benjamin Jabold, a student officer at the Green Hub, joined the X2C team.

4. Time spent

This covers time spent on the second part of the project. The preliminary estimated budget is 14 000 euros or approximately 200 hours for the project in total. The budget for the first 80 hours was used for preparatory work: a preliminary syllabus; the task environment; co-located relevant source programs for student supply; synergies with other UT/CBL partners. The remaining 120 hours were used to provide for the actual course content.

5. Planned time expenditure until end of 2021

As indicated above, the remaining time was spent on course development and, more in particular, on the two module components that we had to include to go from a smaller course to a full-fledge honour programme.

Team member	**Planned time expenditure (hrs)**	**Department**
Alex Baker-Friesen	12 hrs	Green Hub
Ivona Glišić	20 hrs	Green Hub
Benjamin Jabold	12 hrs	Green Hub
Anete Veidemane	38 hrs	CHEPS (TPS, BMS)
Guus Dix	38 hrs	CHEPS (TPS, BMS)
Total	**120 hrs**	