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ORIGINAL IDEA

Students as change agents for societal challenges –

An experimental IPE design across nations

Merethe Hustoft[1 2]*, Håvard Stensletten Eik [2], Gunhild Agdesteen [2], Elin Christine Gundersen [2], Ane Johannessen [2]

1 Department of Health and Functioning, Western Norway University of Applied Sciences, Bergen, Norway
2 Centre for Interprofessional Workplace Learning (TVEPS), Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway
* merethe.hustoft@hvl.no

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Abstract

In 2025, the Centre for Interprofessional Workplace Learning (TVEPS) co-designed a Blended Intensive Programme (BIP) with partners from Denmark, Sweden, and Norway as part of a NordPlus project. The aim was for students from different disciplines and countries to become agents of change for grand societal challenges through collaboration on wicked problems in a workshop with representatives from municipalities and educational institutions.

Exploring real-life wicked problems without straightforward solutions can enable students, municipalities, and scientific staff to create social, environmental, and economic value and to contribute to the fulfilment of the UN Sustainable Development Goals, including the provision of ethical and responsible healthcare services. The workshop comprised two parts: an online week and a one-week on-site challenge workshop at Chalmers University of Technology. Stockholm, Sweden. The students were introduced to grand societal challenges from the municipalities of Øygarden (Norway), Kolding (Denmark), and Aarhus (Denmark). Their task was to explore wicked problems in

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interprofessional teams comprising students from health, social care, engineering, design, and entrepreneurship disciplines, using an innovation process to identify sustainable opportunities and hypotheses that could later be investigated, developed, and implemented in collaboration with the municipalities. During the challenge workshop, the student teams engaged in close dialogue with municipal representatives, experts in municipal economics, and facilitators from the educational institutions.

Educational institutions derived significant benefits from the interprofessional, cross-sectoral, Nordic teaching format. Students gained valuable insight through reflection and close collaboration, developing innovative perspectives, potential opportunities, and hypotheses related to the societal challenges presented. These can be further developed and implemented to benefit the participating municipalities, whose representatives received input of potentially high societal value.

Keywords: interprofessional education, blended intensive program, change agents, wicked problems

Background

The demographic shift is underway, and we urgently face a global workforce shortage across all health and social care disciplines (Strack et al., 2024). By 2030, for the first time, the number of people aged 65 and over in Norway will exceed that of those aged 19 or younger, and a similar pattern is observed in many other countries. According to the WHO, interprofessional education and collaborative practice will be essential for mitigating workforce shortages in health and social care services. We need a "collaborative practice-ready" workforce, which can only be achieved through high-quality interprofessional education (IPE) (World Health Organization, 2010).

The Centre for Interprofessional Workplace Learning (TVEPS) has offered interprofessional education and collaborative practice for students in the health and social care sciences since 2012, in alignment with the WHO framework. At TVEPS, we focus on education through real-life practice, with students learning by tailoring interprofessional care plans for patients or service users in primary health care services, or by preparing interprofessional health teaching sessions for children or immigrants. For the past decade, we have also been part of the Nordic Experts in Teams network, a forum for exchanging knowledge and experience among higher education institutions in Norway, Denmark, and Sweden. The network's primary focus has been to strengthen students' interprofessional competence, with particular emphasis on collaboration across disciplines, institutions, countries, and service settings. In 2025, we took part in a network experiment on a new type of interprofessional education course: a cross-country, cross-disciplinary challenge workshop titled "Exploring Grand Societal Challenges". The course aimed to achieve mutual benefits for both students and municipal stakeholders by combining opportunities for interprofessional, international, and cross-sectoral collaboration. In the following original idea article, we present highlights and reflections on this type of educational initiative.

SoTL readers will recognise this original idea as a direct response to Godbold, Matthews and Gannaway's recent call to reframe SoTL – shifting from viewing diversity as a problem to be solved to valuing variation as an opportunity to build more empowering academic cultures (Godbold et al., 2024). The workshop context is complex: it is interprofessional, challenge-based, addresses grand societal challenges, and is co-produced with municipalities. By documenting how student teams engage with, investigate, and act on an authentic challenge, we will provide actionable design insights for enabling students to cross significant professional boundaries.

TVEPS – our starting point

TVEPS practice is mandatory for all final-year health and social care students in the Bergen area of Western Norway. Currently, approximately 900 students engage in TVEPS practice each year, learning with, from, and about each other, thereby improving the everyday lives of the patients and service users they encounter. The students come from 10 study programmes at the University of Bergen (UiB) and 8 at Western Norway University of Applied Sciences (HVL).

For the "Exploring Grand Societal Challenges" course organised through the Nordic Experts in Teams network, students eligible for TVEPS practice were invited to participate in the new international course instead of doing their regular TVEPS practice. Fifteen students from UiB (4 child welfare students, 2 pharmacy students, 6 psychology students, 3 dental hygiene students) and three students from HVL (1 occupational therapy student and 2 nursing students) enrolled.

The "Exploring Grand Societal Challenges" study design

The "Exploring Grand Societal Challenges" course was organised as a BIP under the Erasmus programme and comprised a one-week online component and a one-week on-site component.

As the aim was to educate students across disciplines to become agents of change for grand societal challenges, an innovative interdisciplinary mix was essential to the challenge workshop. During the challenge workshop, students therefore collaborated with disciplines they typically would not consider "natural" partners in an interprofessional team. The course included TVEPS students from health and social care programmes, as well as students from design, entrepreneurship and engineering programmes at other universities across all three countries. To ensure the course's authenticity and societal value, the network collaborated with Øygarden municipality in Norway and the municipalities of Odense and Kolding in Denmark, which provided information on their grand societal challenges. Øygarden identified the emerging, dramatic workforce shortage, coupled with increased sick leave among health personnel, as a pressing challenge. Odense reported similar wicked grand societal challenges to those in Øygarden, with a large proportion of the workforce in part-time employment. Kolding presented a somewhat different and more complex grand societal challenge: they are currently implementing school, workforce, elderly, health, social, and green shift reforms, but these reforms are developed in silos without a clear shared direction. By addressing the challenges municipalities presented, the students developed skills as change agents and worked toward a more sustainable future, including the provision of ethical, responsible healthcare services.

These challenges are all defined as wicked problems. According to Horst Rittel (IxDF, 2016; Rittel & Webber, 1973), a wicked problem is defined through ten characteristics. The two first are that wicked problems have no definitive formulation and no stopping rule, meaning it is impossible to know when a final solution has been reached. Third, their solutions cannot be judged true or false, only good or bad, and fourth: there is no immediate or ultimate test to confirm a solution's success. As a fifth characteristic, because there is no opportunity to learn through trial and error, every attempt functions as a "one-shot operation" with significant consequences. Sixth, wicked problems also lack an exhaustively describable set of potential solutions, and seventh, each one is essentially unique. The eight characteristic is that each wicked problem can also simultaneously be

understood as a symptom of another underlying problem. Ninth, every wicked problem can be explained in numerous ways, with the choice of explanation shaping how the problem is ultimately resolved. Finally, those responsible for addressing a wicked problem have no "right to be wrong" and must be fully accountable for their actions, given the significant consequences for those affected.

Due to their complexity, wicked problems require wicked and multifaceted solutions. In the “Exploring Grand Societal Challenges” course, rather than proposing explicit solutions, interprofessional student teams identified hypotheses related to the municipalities' wicked problems. The students were introduced to various interprofessional collaboration methods. Among other approaches, they were introduced to the challenge-based learning framework, comprising three interconnected phases: Engage, Investigate and Act (The challenge institute, 2018). In the Engage phase, students move from an abstract to a more concrete, accessible idea. In the Investigate phase, students establish a foundation for contextualising possibilities or hypotheses about the wicked problem, and in the third phase, they develop and implement these results. During the challenge workshop, the students were also introduced to a systems-thinking framework(Design Council, 2026). This framework helped students understand the complexity and interconnectedness of wicked problems and contributed to the development of their hypotheses, for example, by using the Double Diamond to guide their innovation process (see Figure 1).

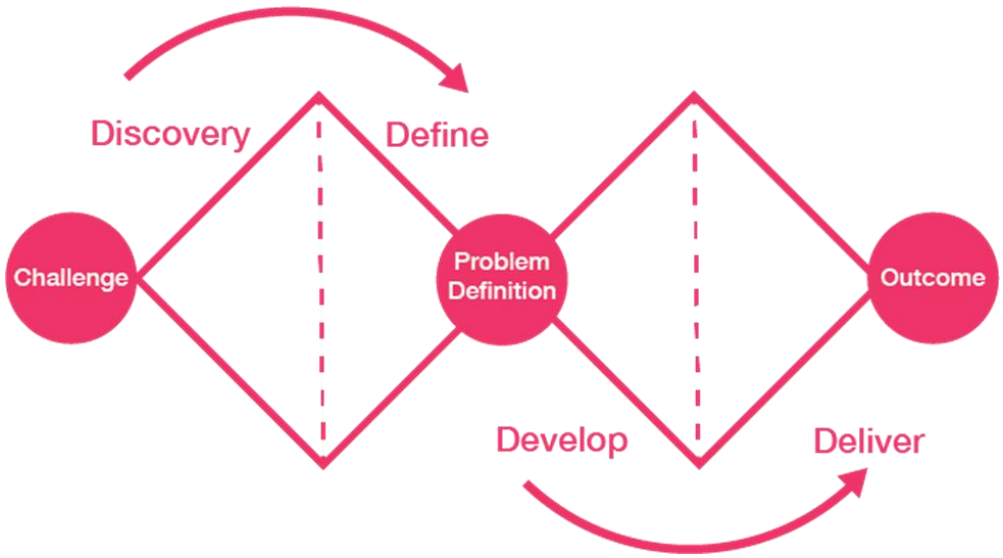


Figure1. The Double Diamond, from the Design Council (2021) https://mgearon.com/ux/double-diamond-model/. CC BY 4.0 license.

Students were required to deliver a predefined set of deliverables throughout the challenge workshop. After the first week online, students were expected to identify and provide examples of how demographics affect municipalities; deepen their understanding of the wicked problem presented; explain how demographic challenges impact sustainability; articulate ways to address these challenges using innovative processes; and begin formulating hypotheses. By the end of the online week, the students submitted a 10-page PowerPoint presentation to be delivered at Chalmers University of Technology the following week. At Chalmers, students were asked to concretise the background of the wicked problem and present a list of possibilities or hypotheses. They were then asked to pursue one or two of these possibilities or hypotheses, investigate them further and present them to the municipalities at the end of the challenge workshop. Additionally,

students were asked to reflect on and present their interprofessional and innovation workshop processes. The final deliverable was a report providing insight into their processes and the development of potential hypotheses. The possibilities or hypotheses identified by the students will be followed up on through new courses and collaborations across educational institutions and municipalities.

Students' learning

Through the grand societal challenges workshop, the students developed innovative perspectives on complex real-life problems. They identified hypotheses and potential approaches to addressing the wicked problems presented by the participating municipalities, emphasising problem identification rather than problem solutions.

Below is an example of hypotheses identified by one of the student groups investigating the wicked problem of Kolding Municipality (see Figure 2):

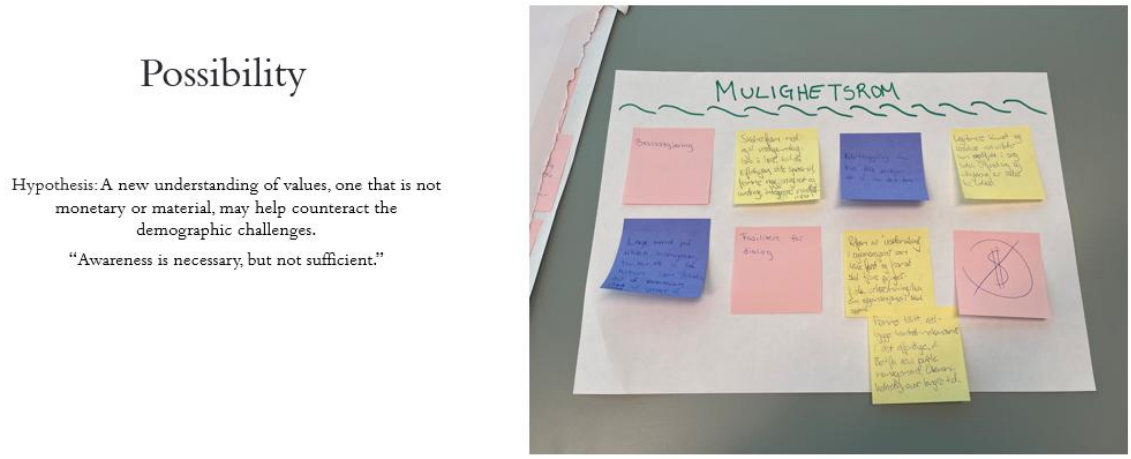


Figure 2. Results from a student group investigating a grand societal challenge from the municipality

Among the participating students, 78% reported that the course strengthened their ability to manage uncertainty, and 85% reported that it strengthened their ability to see the broader picture and understand how things are connected. Free-text interview responses from the students also indicated that the "Exploring Grand Societal Challenges" study design was well-suited to developing skills in change agency and interprofessional collaboration.

One student stated, "*I have gained a deeper understanding of how important the drive in an interprofessional team is, and how it helps push us toward becoming change agents.*" Another student reported that "*The course has opened my mind to the possibility of doing things differently and developing oneself.*"

The pedagogical tools employed in the course were also perceived as valuable by the students. In the words of one of the students: "*When reflecting on our team function through using the team operating model, this model helped us to look at how our team*

was structured and how we worked together in the team. We changed substantially as a result of this exercise. All of us got better self-insight.

The interprofessional mixture of students also added to the learning outcomes: "*having team members seeing me, hearing me and valuing my experience, that my experience actually meant something in such a setting, that was really valuable*". Furthermore, the real-life format of the "Exploring Grand Societal Challenges" course, with its substantial difference from traditional classroom programs, served as a true eye-opener for the students: "*In the online week, we suddenly understood how invested the municipalities were in this project. Then I thought: s**t, we can actually make a difference here*".

The way forward

Reflecting on the development process leading up to a complete challenge workshop, several issues are worth noting. Although time-consuming, developing such a workshop is enriching in so many ways. Being a collaborative group comprising multiple stakeholders can be challenging. Therefore, a smaller working group was formed and given primary responsibility for its development, a decision that was both necessary and important to ensure the process's flow and continuity. A particularly enriching experience during the developmental stage was cross-disciplinary collaboration across countries. Discovering each other's strengths and weaknesses, understanding how we can all contribute, and how we align have been fundamental to the challenge workshop's final outcome and content. We brought together diverse aspects of theory, knowledge, and experience, enriching our discussions and further expanding our knowledge base. Including municipalities alongside educational institutions across countries has also been important in this project.

During the implementation phase, it became clear how important the facilitator's role was during the challenge workshop. The facilitator did not have a clear solution but served as a discussion partner for the students during testing and assessment, for example, to evaluate whether the proposed possibilities or hypotheses were valuable. Observing students' interactions and discussions with participating municipalities and facilitators during the challenge workshop, as well as their collaboration, has been highly instructive for the development of future IPECP.

The hypotheses and proposed approaches to address the wicked problems identified by the students in the challenge workshop were shared with the participating universities for future development. In TVEPS, we invited a new interprofessional student team to explore one of these hypotheses and approaches in collaboration with Øygarden municipality, a few months after the "Exploring Grand Societal Challenges" course was completed. This new student team received the previous students' work and was asked to tailor an interprofessional action plan that builds on this work and addresses the selected challenge. The action plan was developed as both a report and a scientific poster to illustrate its core messages. The topic of this action plan was how a meeting place for young and older adults can prevent social and health-related challenges and mitigate some of the adverse effects of workforce shortages. This type of cumulative student work shows great promise. With the BIP course representing the first step toward change in the municipality by identifying challenges, hypotheses, and recommended approaches, the TVEPS student team, which later explored one of the selected challenges, represents the second step – helping Øygarden municipality move closer to a solution for this particular challenge. We envisage that additional TVEPS teams can continue this work, gradually developing a holistic step-by-step solution for the municipality.

In addition, the Nordic Experts in Teams network is currently planning a second BIP

course for 2026, this time at the TVEPS centre in Bergen, Norway. The future challenge workshop will continue to present and address the wicked problems introduced in the previous workshop, while also broadening the scope by inviting municipalities to present additional societal challenges.

Conclusion

Working interprofessionally across disciplines, institutions, municipalities, and countries through innovative processes creates uncharted possibilities for improved collaborative practice. The participating educational institutions gained significant benefits from the interprofessional, cross-sectoral, and Nordic teaching format. The "Exploring Grand Societal Challenges" study design showed strong promise and demonstrated that students, as agents of change, can play an important role in addressing future real-world challenges.

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