

## *The Societal Impact of Universities: A Qualitative Evaluation of an Education Innovation*

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### **Abstract**

With the urgency to respond to the rapid changes undergoing in the world, it is becoming more pivotal than ever for universities to connect and actively engage with society to tackle our current global challenges. In the Netherlands, this shift towards contributing to a positive societal impact has permeated across higher education institutions. Numerous projects have emerged with an explicit focus on bringing real-life problems into the classroom to foster multidisciplinary collaboration and interactions across different stakeholders and the community at large. The literature presents multiple conceptualizations to describe the societal impact of universities, ranging from the social responsibility of universities to university-community partnerships. Nevertheless, little is still known about the impacts that such projects might have on the students, the teachers, and the community. Therefore, this research aims at exploring the effects of an education innovation, called HEF House, at the Erasmus University Rotterdam. We conducted interviews and focus groups with students, teachers, and the local partners across three different cases happening within this project. We discovered many different changes that the HEF House is stimulating, changes in terms of knowledge acquired, skills developed, attitudes and values shifted, new relationships forged and ways of doing. We also learned about potential causes of such changes. They ranged from developing experiential learning experiences and combining different institutions and disciplines to co-creating with the different actors involved and reflecting together throughout the whole process. Implications on the relevance and value of (evaluating) such education innovations will be explored in more depth.

Keywords: HEF House, Higher Education, Social Impact, Education Innovation

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## Introduction

The urgency to respond to complex societal challenges is increasingly recognized, with regards to, for example, digitalization, sustainability, or the general well-being of individuals. Confronted by these societal challenges, updated pedagogical perspectives are offered that can address complex thinking and the learning processes during active involvement with society (Staley, 2019; Wessels et al., 2024). Also stressed in European strategy documents (e.g., European Commission, 2022) is the engagement of government and stakeholders with universities through social engagement and innovation. These observations are reflected in the increasing number of higher education programs and courses that put an explicit focus on close collaborations with actors in society. Universities play an important role in providing knowledge in order to build human capital as well as to contribute to social, economic, and cultural development (Sterling, 2021).

The community engagement efforts can be collectively grounded on the importance of creating social impact. In their conceptualization of social responsibility of universities, Godonoga and Sporn (2023) explained the two-way exchange between universities and stakeholders and defined impact as: "...the effects and value that higher education institutes add to their external environments" (p. 451). Although the multiple conceptualizations, e.g. socially responsible universities or university-community partnerships, demonstrate the merit of higher education in driving innovation in today's knowledge economy, the social impact of universities remains vague (Carl & Menter, 2021). In comparison to studies on the *drivers* and *processes* of universities' socially oriented activities, *impacts* of these activities is unexplored to a greater extent (Bayuo et al., 2020). This research aims to contribute to the impact studies and to further define the social responsibility of universities.

The conceptualization of social responsibility by Godonoga and Sporn (2023) covers the relation between the university and the society through the institution's responsibility, service, engagement, mission, and impact. Impact explicitly defines the more tangible effects. Education and transfer are university activities whereby these effects might be achieved (Carl & Menter, 2021; Jorge & Peña, 2020). Living lab-based educational innovations are examples of such activities (Rogers et al., 2023). For our research, we adopt Fourati-Jamoussi et al. (2019, p. 571)'s broad definition for educational innovation: "novel practices, tools or technologies used in curricula, course materials and pedagogy". Utilizing societal challenges as the driver of higher education innovations is a common current practice across disciplines e.g., engineering, environmental, health sciences, as well as social sciences (Nowell et al., 2020).

Although a clear tendency in creating impact through education innovations is evident, organizations face challenges in identifying a social impact assessment tool or a technique that fit their vision and needs (e.g., Gerke et al., 2023; Kah & Akenroye, 2020). Yet, there have been several efforts to monitor and evaluate the impact of university innovations on the actors involved, the processes whereby impact is achieved, and the circumstances that play a role. Notable helpful tools include the knowledge exchange framework (Johnson, 2022) and the research excellence framework (Kelly & McNicoll, 2011). The 'impact evaluation framework' developed by Edwards and Meagher (2020) highlights the types of impacts and the actors involved together with the relations between impact and its potential underlying mechanisms. Multiple factors were developed and positioned within three core evaluation questions: what changed, how these changes took place, and what the lessons learnt are. Combining their first two questions, Edwards and Meagher (2020) highlight the importance of finding qualitative

indicators of the learning and change processes contrary to a check of results against large-scale objectives. This exploratory lens can uncover how learning and change take place and inform the effective practices to engage participants in the learning process (Heikkinen & Isomöttönen, 2015).

Prior research indicates that engaging participants in learning and change processes during open-ended social experiences is not straightforward (e.g., Vogler et al., 2018). Many factors such as the problem at hand and participant characteristics and experiences play a role in the learning experiences (Heikkinen & Isomöttönen, 2015; MacLeod & Van der Veen, 2020). Yet, identifying what kinds of learning mechanisms emerge is critical in developing pedagogies to facilitate learning and change in collaborative projects (Vuojärvi et al., 2022). The previously identified learning mechanisms in similar higher education contexts can be reduced to three categories. The first category concerns mechanisms at the individual level: for example, self-directed learning and gaining agency, and recognizing expertise and lack thereof. Next, the second category specifically stresses collaborations and interdisciplinarity, such as coordinating actions at the team level, connecting and integrating expertise, creating shared understandings and hybrid practices, and solving conflicts (e.g., Fortuin et al., 2024; Heikkinen & Isomöttönen, 2015; Hero & Lindfors, 2019; Schaffer et al., 2012; Van der Wee et al., 2024; Vuojärvi et al., 2022). Finally, a third big category that promotes learning and change can be represented by hands-on experiences, where students are active and construct knowledge in realistic contexts (e.g., Boschman et al., 2019; Khoo et al., 2024). These insights gained from previous studies can apply to our context and shed light on our understanding of the learning and change mechanisms that contributed to the impacts of our education innovation.

ErasmusX, an innovation unit at Erasmus University Rotterdam, developed a project aimed at connecting education with the urban neighborhoods via the HEF House, a building in the south of Rotterdam. This initiative, a collaboration between research, applied, and vocational universities, bridges the gap between academia and the local community, addressing educational and social inequality. Considering the above-mentioned observations, the leading question of this evaluation study was: ‘How does the education innovation, HEF House, impact its participants and the urban community, with which learning and change mechanisms, and under what circumstances?’

## **Method**

This study employed a qualitative case study design involving three in-depth case studies selected based on 'maximum variation', an approach that ensures a comprehensive understanding of the different processes and outcomes within the studied cases (Flyvbjerg, 2006). The first course, ImpactLab, took students from research and applied universities to work together to develop a youth hub within the HEF House. The minor on migration was an interdisciplinary course exploring global migration topics through seminars, lectures, and a buddy program with young refugees. The public health course was a multidisciplinary program focused on maintaining and improving population health through collective measures, with a particular emphasis on addressing health challenges with local organizations. We engaged all relevant actors through semi-structured interviews with students and professionals, and focus groups with coordinators and teachers. Data was collected from ten students and three focus groups distributed across the three cases. Additionally, seven staff members, including social, municipal, and educational partners, were interviewed. The interview protocols were based on Edwards and Meagher (2020)'s impact evaluation framework. Thematic analysis was used to analyze the data with the program Atlas.ti.

## Results

### 1. What Are Learning and Changes That We Have Observed?

#### *Changes in Knowledge*

Students have developed a broader, more complex understanding, which extends beyond course topics to include a better understanding of the surrounding neighborhood. Both students and university teachers have gained new insights into the south of Rotterdam, an area they had rarely worked in.

*Yes, I think most of what I've learned myself is broadening that perspective ... because I myself come from the Westland because I could not initially come into contact with it, I mainly walk over the campus or in the business building, so to speak. To see a completely different neighbourhood, which also takes place in Rotterdam. That's been the biggest learning moment for me, so just the experience of sitting in a police station and having conversations there, but also. Of course, in your own hands with those young people that you hear those stories and that you think of "There's more than my own bubble that I live in with guys who are all educated", so to speak. (ImpactLab student 4)*

#### *Changes in Social Relationships*

Engaged education has transformed relationships among students, teachers, and the local community. HEF House has facilitated the creation of new social connections among all involved parties.

*Like I spoke with a lot of students and they said, "Yeah, I had like a lot of prejudice. Uh towards like the status holders. I had like certain assumptions and like everything is just so different now. I really experienced and spoke with the people I had like some assumptions of". So, and yeah, I'm very inspired by the way that the learning, the learning exchanges, yeah, goes like both sides. (Minor on Migration teacher)*

#### *Changes in Mindset and Values*

Participants have started to change how they perceive certain phenomena and what they find important. They have learned flexibility and openness, which is especially important when interacting together in this open-ended context. They are recognizing the complexities intrinsic to our society and the importance of other people's perspectives in navigating through this landscape.

*Also look at the things from their perspective. I think that's also something I really learned. I did my paper like this, smuggling and irregular migrations, and then I would look at the policy in the media. Look at it and how people themselves look at it. But that's such a big difference and I think it's important to also look at things from their perspective and how they see it. And that's personally for me the way how you can help these people and obviously looking at how we want to do it like this and we see them like this. (Minor on Migration student 3)*

## ***Changes in Skills***

Students have enhanced their social and learning skills. They know better how to learn, how to communicate and how to collaborate. Working with peers and community stakeholders at HEF House has fostered these skills, highlighting the importance of learning from and with diverse groups.

*In the beginning, all the students worked more like alongside each other than really with each other. We all had like our own specialties, but we didn't really communicate how we were going to bring it together. So everyone just did their own thing and I thought everything was going fine with the teamwork. And then we had like a presentation for the stakeholders (...). One student from the applied university was really disappointed because he had anticipated a lot more discussions between the stakeholders and us. While I said, well, it went exactly like I had thought it would (...). So yeah, that's one of the moments where I noticed "OK, we need to work on our communicating skills" and that's also what we did afterwards. And also like a common language, because sometimes they were talking about stuff and I had no idea because everybody was doing their own thing (...). So yeah, so after that I think we all learned a little bit how to communicate better. (ImpactLab student 2)*

## ***Changes in Doings***

We can see the participants engaging in new activities. Teachers, students, and the locals find themselves in new contexts and start doing things differently. For example, the youths from the neighborhood have started to create new projects and are applying for funding.

*One of the opportunities I have, I have the possibility to give money to local projects, which we think can help to build society and community building. Uh, in the last five years I have only had two projects applied from youngsters. Since the opening of the HefHouse, I have ten. They have never before applied. (Person from the municipality)*

## **2. Which Learning and Change Mechanisms Can We Identify?**

### ***Co-creation***

Students emphasized the importance of peer collaboration and support, teacher guidance, and interactions with local organizations. Students benefited from working with peers and teachers from various disciplines and perspectives to enhance their communication and collaboration skills, change values and mindsets, as well as improve project outcomes. Teachers also valued interactions across different educational institutions and disciplines, recognizing this as essential for local organizations and citizens.

*Someone from another study also brings perspectives with them. And if you get stuck somewhere, because your knowledge reaches up to that point, then the other person may be able to supplement it and then you can come to a better solution together. I think in that sense it did help that it was a different one. That those people had a different educational background. (Public Health Minor student 2)*

Such experience of partnership is also present in the interactions between the teachers and the employees from the different local organizations. The HEF House is observed to have acted as

a connector, fostering partnerships between the universities and the different local organizations and citizens.

*Well, I think on our level of organizations, it's very nice here to have the youth hub together with applied and research universities. That to us it's three institutes that we need and sort of need to serve but what HefHouse really gets is that you can only serve when you know what the needs are. So all this is, uh, sort of the change that we need, not talking about people but with the people and get their needs. And then the innovation is how can we as organization create the possibilities and solutions for the needs of the community and that is, sort of crazy enough, innovation. Crazy enough, but yeah, the public debates ... So I asked for seven years, I want a solution for this but now we are here, we are here and you yeah have to be humble enough to go to the key places and people, and if we want to serve you what do you need? (Member of a local organization)*

### **Engaged Learning**

Experiential learning, through hands-on participation, has been embraced. Activities ranged from guest lectures from practitioners to site visits to local organizations. Most notably, students found particularly interesting working together with the citizens in the neighborhood and the local organizations. Teachers also valued this approach, despite occasional struggles, and recognized its benefits for themselves and students.

*I learned so much about the experiences of refugees, not at the theoretical standpoint, but by talking to them, that was very nice. I had never really interacted with a group of refugees before. So that definitely just added to my learning experience. But also the skills. The activities we did and also the interaction with the status holder definitely helped with not only, you know, the communication skills but also establishing friendships or relationships with status holders so. (...) I can't say a specific moment, but it was just we are not used to you know. In university, we just learn from lectures and we do our readings. So in this course, I think the way it was set up, it really helped us and was an experience that was very new. (Minor on Migration student)*

Local actors stressed the need for reciprocal engagement between education and society. Education should be embedded in society. When that sense of reciprocity is being welcome and embraced, then the learning experience becomes more valuable and relevant for everyone involved.

*That's how the way to make transformation and I thought ohh my hell. How am I going to do this? Because the Minister or the mayor won't listen to this story. In the meanwhile I met the people in charge of the HefHouse. I told them "in the university, we educate academics". Are you researching for research sake or for your own purpose, or are you researching to make impact and change in society? If you are doing the last, then you should be in society, not in your ivory tower, gold coated with kindred spirit. You should be man enough to go into society and grasp what's happening there and research from there. And they took up this challenge and they came. It was really a struggle. It's still struggle, but they're there. (Member of a local organization)*

## ***Self-Direction***

The ability to direct one's own learning experience turns out to be a key mechanism in this learning context. Both teachers and local organizations highlight the importance of giving students and community members control over their experiences. This sense of agency energized students and enhanced their learning journey, fostering skills in communication and collaboration. It is also vital for the local members of society to take charge of their life and their experience.

*For instance. I think I'm the only one who's happy that [a youth organization], which was selected to hold the youngsters, said: "No, I'm not going to do this job." I was really happy because that means they understand we have to make a transition and we're not gonna make that transition with them. They just want to tell the youngsters "That's the way to do it". No, they know what's the way, but they need a toolbox with tools they can use. Not that you are the guardian of the toolbox. They want their own toolbox. They are the guardian of the toolbox and not you. They tell you what to fill it with, not you. And that's a hard lesson, but I'm really, really excited about this! (Member of a local organization)*

It is not important to only learn by doing or to take actions. It is deemed adamant that one takes a step back and reflect. It is indeed often in this action-reflection cycle that learning becomes meaningful and relevant to all the parties involved, for students, teachers, citizens, and local organizations.

*You need some sort of. I also have quite strong opinions often, so I have to say that I have that myself. But yes, you really have to try to put that aside. You have to try to take some kind of helicopter view of the situation in order to think okay. Is that, what is what the person is saying now, is that. Can that be or how. You have to learn to be really open, say to other people's opinions and I think I say that, but also in again that delivering, say between the different interests that have taken steps in that. But I can also experience it as a frustrating process. And every once in a while you just have to let go, do something else and then look at the world again the day after for you to have a fresher look, so to speak. (ImpactLab student 6)*

### **3. Under Which Conditions?**

Given the complexity of such processes, not everything went smoothly. Elements of frustrations and disagreements emerged because of the different and misaligned expectations and aspirations of the many parties involved. One can clearly read that in a reflection of the organizers of the HEF House, showcasing the importance of making sure all parties are aligned in terms of expectations and goals.

*My frustration is mainly about collaboration, you know, collaboration with the youth hub, collaboration with applied universities, and we do work together, but we do not have the same pace and perhaps not always the same objectives or ambitions. I think unwritten, but I don't know in spoken form. I think that what I'm saying now is that they will all agree with that, but in the meantime everyone is stuck in their own organization and system and I find that so frustrating that I still find it difficult to really get things off the ground.*

Therefore, it is vital that the right conditions are put in place for this form of education to work. In our study we noticed at least five important ingredients.

### **Safety**

A sense of safety and trust among the partners involved is necessary so that they can be themselves and express freely.

*I know for sure that the major step was that we all took a jump into the deep without knowing where we were going and we had the firm belief that that's going to work. The pioneers who took the jump had the firm belief we were going to land, we don't know where we're going to land, but we're going to land. That is the belief the youngsters needed because they also don't know where they're going to. So the collaboration is unique, but it's not the uniqueness of the collaboration and being there together, that makes it work. It's the fact that they treat everybody as equal. Everybody is expert. Never did someone from university say "Oh it is just the youth." "No, they are equal partners, even in the name. It's Hogeschool, Erasmus and Feyenoord united. That's what HEF means, that is what the HefHouse is. It's equal. (Member of a local organization)*

### **Mindsets: Flexibility and Resilience**

Given the nature of such processes, it is help that the people involved have a flexible, resilient and open mindset to be able to be adaptable and to navigate through the complexity.

*Yeah, it was very nice and ohh because I worked with Johanna lots and Mary and Rob from Erasmus University College. And yeah, working together was very natural. I think we all have a bit of the same way of thinking. I think sometimes we can be very like uh last minute sometimes because things change all the time. For example, in the minor, the criteria was that the students speak Dutch, because they teach Dutch to the asylum seekers, right? But then at the kickoff, I saw that like there was a group of like 10 students who were international and didn't speak Dutch. So we had to do a lot of things like last minute, like went all OK, but yeah, it was very nice that. Yeah. That the partners also were very hands on and very flexible. So that's something that was very nice for us. (Member of a local organization)*

### **Resources: Time and Money**

Time and money are needed for such relationships and bonds to be forged. It takes time and resources to be able to initiate such projects.

*My experience with those kind of processes, if you want to develop it together, you need to spend time to get to know each other. And to build up common ground and you think completely different than I think because you have a different background. That's where we are, but we need to work together. We are just starting (...). 'Cause you need so much time and effort and you must invest time and effort to find a way of working together in an efficient way, in a way that you actually use everyone's input. (ImpactLab teacher)*

*At least for me it is becoming also clearer the value in interacting with local organizations, but also the difficulty because clearly they often lack resources, the staff,*



*the funding and so on. So that's the question that if we want to do education in here we need to ask ourselves seriously. (Public Health Minor teacher)*

### **Governance**

Therefore, there needs to be a governance structure supporting these sorts of partnerships and processes. This excerpt from the focus group of the ImpactLab shows how this is the case.

*Teacher1: I think we as partners should like have a governance structure like OK, how are we gonna do things and have like a guidance, road map, and in the road map we have like a lot of exploration moments as well but it takes time to create...*

*Teacher2: We [referring to the educational deans of the different institutions] pinpointed this challenge. And we defined that it is very wise for the different curriculum and institutions to sit together, from high schools and youth hub to research and applied universities. How could it look like if we were working in this area? How could we work together?*

*Teacher3: But also for me, the most important question would be how can you do this in a sustainable way? Because if this doesn't work out, then in a few years there will be other parties. All the time that you invest, they will do it again.*

### **Teacher's Role**

Working in this context is often new and brings about a series of frustrations and emotions. The role of the teachers shifts from transferring knowledge to guiding students through the uncertain and open-ended processes. For this to happen, it was essential for the students to see in the teachers somebody they could reach out to.

*And I think because of those questions, the teacher was also there like guiding us, I think we learned how to combine those things and like he also helped us a lot in our co-operation ... because in beginning, there was like tension a little bit because the different stakeholders had different ideas. And they didn't really combine. And I think it also helps us like how to deal with that because it was not really a good. Like they told us to build trust, but we had to like, not tell certain things to certain parties. So for me it was difficult because it felt distrustful to not say it and the teacher like, helped us how to deal with those kinds of things and feelings. So I think that helps a lot and that's what I've learned. (ImpactLab student)*

### **Conclusions**

The aim of this study was to reveal the changes our participants experienced through our education innovation, HEF House, and the learning and change mechanisms behind such changes. We also identified conditioning factors that influenced these experiences.

The continuous interactions and collaborations seem to have impacted students, teachers, and local partners in terms of knowledge, behavioral, and affective outcomes (Guo et al., 2020). In similar higher education contexts, acquiring and deepening both course and cross-disciplinary knowledge is a common result (e.g., Hero & Lindfors, 2019; Vuojärvi et al., 2022). Although a change in mindset towards a broader perception of the complex local and global challenges

as a result of forming new social relations resonates well with earlier findings (e.g., Desha et al., 2021), gaining a sophisticated understanding of the city and the neighborhood seems to be a novel outcome. Results of the case study by Mulder-Nijkamp and De Koeijer (2022), where a highly diverse group of stakeholders worked with students on real-world design problems, indicate that participants formed relations with groups they had never interacted before. Their results also suggested that continuing these new interactions even after the project may promote broader problem-context understandings. The development of a flexible and open mindset is consistent with prior research, which also emphasizes changes in similar personal qualities such as gaining persistence, perseverance, tolerating uncertainty, and transitioning from frustration to maturity (Heikkinen & Isomöttönen, 2015; Hero & Lindfors, 2019; Vogler et al., 2018). In terms of a perceived improvement in collaboration and communication, our results confirm the tendency that similar education innovations tend to develop more social and soft skills compared to hard skills (Guo et al., 2020; Hero & Lindfors, 2019; Vogler et al., 2018).

Our findings revealed learning and change mechanisms that explain the participants' positive learning experiences. First, collaborating and co-creating with people across disciplinary backgrounds, perspectives, and from a variety of organizations seemed to have created opportunities to develop collaboration and communication skills and to enhance the quality of the project outcomes. According to Heikkinen and Isomöttönen (2015), the underlying mechanism behind such process lies in having to work outside one's comfort zone, which later evolves into contentment through the application of the gained skills and mindset. This might be relevant to our findings considering the development of skills and changes in mindset observed in this research. Studies also found, for example, group dynamics, resolving of conflicts in unusual situations, and boundary crossing to represent other underlying mechanisms behind such co-creation processes (e.g., Hero & Lindfors, 2019; Minoi et al., 2019; Mulder-Nijkamp & De Koeijer, 2022). The hands-on learning mechanism, which stems mainly from being in the real-world and witnessing and working on authentic and complex interdisciplinary issues, is vital in providing benefits for all participants (e.g., Boschman et al., 2019; Kolb, 1994). Extending on our findings and in relation to the two above-mentioned learning and change mechanisms, collaboratively discovering new ways of doing things to produce new action-oriented knowledge as well as being pro-active in these experiences seem to account for learning gains (Fourtuin et al., 2024; Schaffer et al., 2012; Selhorst-Koekkoek & Rusman, 2023). Being proactive also connects to our third identified mechanism, self-direction. Being able to learn by doing or to take actions is equally valuable as engaging in reflection, which enables one to notice one's own expertise and experiences as well as those of the other people involved (e.g., Heikkinen & Isomöttönen, 2015). Reflection has also frequently been interpreted as a leaning mechanism in interdisciplinary dialogue (Akkerman & Bakker, 2011) by other researchers studying similar education innovations (e.g., Fourtuin et al., 2024; Vuojärvi et al., 2022).

From a practical standpoint, our findings have consequences for future course design. For example, having someone on a tutor role to translate expertise between participants when necessary and to ask critical questions, holding frequent feedback sessions, providing contact between collaborative teams, and aiming for longer project and teacher time are among the suggestions in the literature in line with our findings (Boschman et al., 2019; Hero & Lindfors, 2019; Mulder-Nijkamp & De Koeijer, 2022; Vogler et al., 2018). A sense of safety and support is also crucial for a variety of insights and solutions (Mulder-Nijkamp & De Koeijer, 2022). At the theoretical level, researchers are recommended to empirically test the patterns we identified in their contexts. Also, future researchers should also pay attention to the conditions that can

foster hard skills and advanced cognitive skills, such as critical thinking, problem solving, creativity and innovation, in similar education innovations (Vogler et al., 2018).

Our findings are limited to use of self-reporting approaches and the lack of a more granular analysis on the changes and its mechanisms.

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