

The Development of a Toolbox of Models for Multidisciplinary Student Social Enterprise Education

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Abstract

Whilst entrepreneurship is increasingly common as part of a university education, social enterprise and sustainable enterprise are often included as bolt-ons with less detail on the subtleties of the differences such as measuring social value. However, multidisciplinary cohorts studying entrepreneurship represent an excellent opportunity to foster social and sustainable entrepreneurship ideas in a meaningful way. To allow students to focus on the social issues, and for students from different backgrounds to collaborate, we have created a toolbox of models, split into four sections which address opportunity recognition, designing a solution, evaluating sustainability, and addressing impact. The quality of the work produced by the students shows that these have been effective, and students are able to pick from a range of tools depending on their needs. This toolbox is now available to all.

Keywords: *Social Enterprise, Sustainability, Entrepreneurship Education, Toolbox, Business Model Canvas*

1. Introduction

Entrepreneurship education (EE) is now an important part of a university education, allowing students to not only start their own ventures, but to be effective innovators when taking a job in a commercial organization. The United Kingdom's Quality Assurance Agency (QAA, 2018) suggests that EE falls into three classifications – teaching “about” entrepreneurship, teaching “for” entrepreneurship, and teaching “through” entrepreneurship. Social entrepreneurship has a variety of definitions (Peredo & McLean, 2006) but is considered to be applying entrepreneurship to solving social problems. Abu-Saifan (2012) stated that Social Entrepreneurship is the ‘field in which entrepreneurs tailor their activities to be directly tied with the ultimate goal of creating social value’. Most accept that the university has a responsibility to create graduates with an understanding of social issues, sustainability, and

social value (Zamora-Polo & Sánchez-Martín, (2019)). Embedding sustainability into the curriculum can be challenging despite its importance (Anastasiadis et al., 2021), with one of the key tensions linked to sustainable entrepreneurship balancing purpose and monetization. Therefore, it is important for enterprise education to equip students with the competencies they need for improving the income, health, and well-being of communities in an equitable way without a significant negative spillover elsewhere because of the need to generate revenue.

Social entrepreneurship is of interest to students from across the university (Jones & Phillips, 2021). However, it is often included as a bolt on in regular entrepreneurship courses, and often lacks the subtle differences that social enterprises have over regular businesses. For example, understanding metrics for success for social enterprise in terms of outputs and outcomes, the potential difficulties in scaling up when ecosystems even between cities in the same country can be so different, and dealing with complex stakeholders. Further, Steiner et al (2018) have found through a survey of social entrepreneurship courses that suitable frameworks and tools for social entrepreneurship are rarely used. They also suggest that cross disciplinary education would help students gain a deeper understanding, including sciences, engineering, and humanities students. The use of models in learning “for” entrepreneurship is especially helpful when teaching multidisciplinary classes (Papadopoulou & Phillips, 2019; Sanchez-Romaguera & Phillips, 2018) for clarity of purpose, vision, and mission. Social entrepreneurship also has been shown to work well in extracurricular activities where students feel they can take more of a risk where marks are not at stake (Mukesh et al., 2024; Phillips, 2017, Phillips, 2010) and learning by doing is used wherever possible (Chang et al., 2014). Roslan et al (2022) from their literature review have found that lack of experience from teaching staff and issues around curricula design are a particular problem, and that university industry collaborations are recommended to aid student and staff understanding of social entrepreneurship (Fang et al., 2023). Design thinking has been suggested as a suitable approach and Kickul et al (2018) have suggested a model incorporating four main themes of innovation, impact, sustainability, and scale. In addition, an approach increasingly adopted by entrepreneurs to tackle sustainability challenges is the creation of commons, i.e. shared resources that are accessible, inclusive, and democratically managed by and for communities. There is therefore a need for a toolbox of models that encourage the inclusion of social value as well as profitability and that student entrepreneurs can use different models as appropriate to crystallise their own thoughts and to communicate their ideas with other stakeholders, including other students in multidisciplinary groups. Students would be able to pick and choose from a range of models in the toolkit that are most applicable to their project. This was used for two courses that were multidisciplinary and feedback was used to improve the toolbox, which is now available for all. The toolbox is available here <https://www.entrepreneurship.manchester.ac.uk/resources/commons-entrepreneurship-toolbox/>

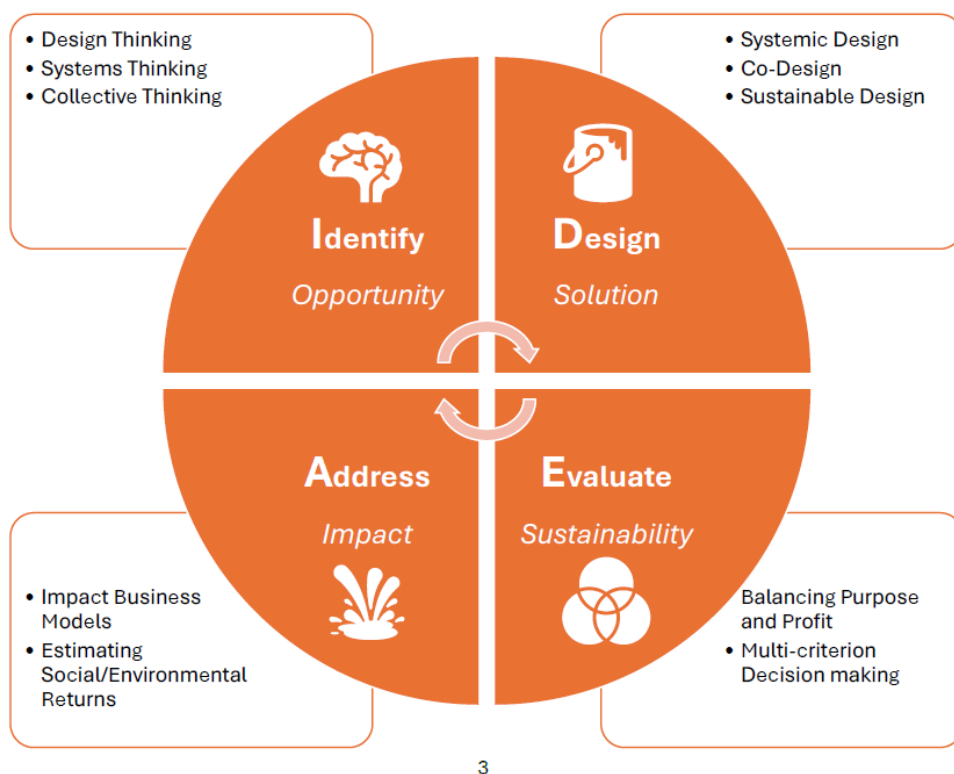
2. Methodology

Undergraduate students participating in two courses used the models from the toolbox as a pilot study as part of their course, Enterprise in Healthcare and Essential Enterprise. Courses were multidisciplinary and feedback was obtained by qualitative means, as well as looking at the quality of the students submitted work.

3. Results and Discussion

The toolbox created is split into four sections (Figure 1) and the toolbox provides a high-level overview of the tools and facilitation guides to help students explore problems and design solutions that meet user's needs in an inter-disciplinary setting. The sections correspond to the IDEA model (Figure 1). The toolkit is designed to be flexible in helping to understand the root level of issues rather than superficially fixing symptoms, and able to be used between different disciplines. This toolbox provides tools and methods that were employed in the classroom by the creators to meet students' requests for more social purpose within the curriculum. The tools can be combined in different ways to design a curriculum, workshop or hackathon based on the needs of the students and staff. We also refer to additional tools that we did not have the opportunity to use with students but have been used in other professional contexts for co-creation and gathering collective intelligence. We encourage educators to adapt and experiment with the tools in this toolbox in the context of higher education.

1 Identifying Opportunities. Student assessments, even within the enterprise curriculum, often focus on individual assessments because of tensions in group work, student complaints and backlash for the lecturer in terms of evaluation scores. But open and participatory approaches are very important for social innovation in order to address the United Nations Sustainable Development Goals.



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Figure 1: The Four Sections of the Toolbox

This gap can be bridged by designing in group work at the formative assessment stage. The process follows the design councils double diamond framework for innovation <https://www.designcouncil.org.uk/our-resources/framework-for-innovation/>. The opportunity diamond represents exploration of the context surrounding the problem, and the solution diamond represents evaluation of viable solutions. Divergent thinking involves broad ideation, while convergent thinking involves narrowed and focused consideration. As part of the formative assessment, students can focus on a process of first using both divergent and convergent thinking in groups to explore various problems and converge on an opportunity worth pursuing. Each student in a group can then frame their own independent strategy for exploiting the opportunity in their summative assessment, satisfying the need for groupwork but also allowing students to work on their individual assessments without the traditional problems encountered in groupwork. This process would not only help define a small set of problems that are worth solving and defined by students themselves, but it also encourages group building towards co or extra-curricular activities whilst retaining individual control of assessment performance and utilizing the power of multidisciplinary groups. As a side effect of this method,

we found that several groups used their formative groupwork to voluntarily enter the extracurricular “Sustainathon” activity.

2 Designing a Solution. For students to begin to design a solution, we encourage systemic design. Systems design often refers to hard technical systems that are completely ‘designable’ where designers have complete control over systems parts and components, understand how they link to each other and can define the system boundaries. In systemic design however, the boundaries cannot be objectively defined and the systems have properties that cannot be fully predicted. This is often the case for social enterprises and the ecosystems in which they operate, with a complex range of stakeholders and sometimes unintended negative consequences of trying to do good. For example, a ‘healthcare system’ where it is often not clear what and who is included or excluded, and how it will look like and behave in the next 1, 2 or 10 years from now. Systemic design is about the collective – neighbourhoods, societies, ecological systems – rather than isolated individuals. Recognising that no-one has a true picture of the system, systemic designers invite multiple stakeholders to participate in defining and driving a course of action, again suiting multidisciplinary working. They may even challenge the deep structure of current systems and work on shifting systems design into a desired direction. Figure 2 is a student idea which suggests collaborating with a radical automation technology and local authority to raise awareness among citizens about not just recycling, but also encouraging users to reduce waste. Citizens here provide collective intelligence and data - and even though the student proposal is of a speculative nature, it invites further possibilities to reduce wasteful consumption and change people’s mental models.

3 Evaluating Sustainability. For evaluating sustainability, students can be encouraged to think about sustainability and social impact using the triple bottom line analysis of economic, social, and financial and each impact could be measured with a sustainability index (SI) such as that by Penn and Fields (included in the toolbox). These allow students to prioritize solution design options based on the relative importance of each of the 3 aspects of the triple bottom line.

4 Addressing Impact. The toolbox includes Impact Business Models (IBMs) to help students focus on social impact. IBMs are the ways that a programme/business is designed to create a specific positive benefit/outcome for one of its stakeholders. It is focused on benefiting a specific stakeholder group with a specific positive benefit/outcome, rather than a “general” overall positive impact that is not specific to a particular beneficiary or not linked to a specific benefit that the stakeholder receives, which is a key issue for success metrics for social enterprises. One can create the business model on Miro or download the ecosystem icons and create a business model offline, for example on PowerPoint.

Feedback from the students who used the toolbox. Students especially liked sharing ideas in groups at the formative stage, the interactivity that the toolbox afforded and the opportunity for multidisciplinary work.

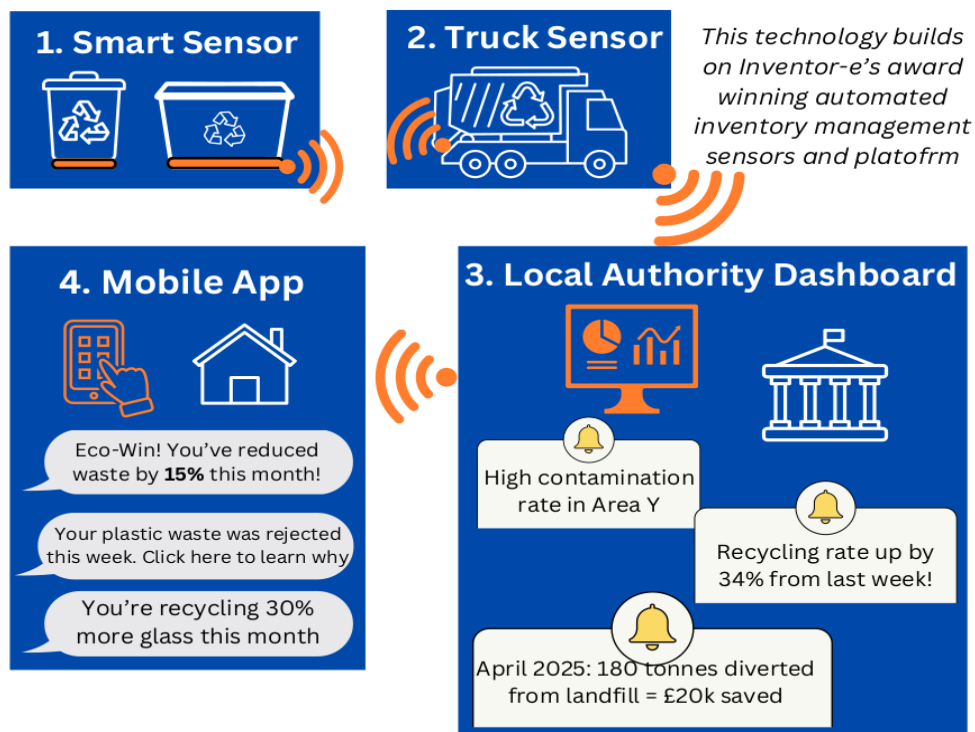


Figure 2: A Solution Design Which Incorporates and Incentivizes People to Recycle

“I liked how many of the sessions were very interactive, giving me the chance to share my ideas with other students and hear theirs too.”

“I was really surprised actually with my curriculum not having anything unless you chose to do, say, biology with business or biology with something like that. I was really surprised that my core curriculum had nothing like that on offer. And I found the module really useful.”

“My group randomly decided to do the “Sustainathon” just for the experience of it. And now I'm super interested in it and I really want to see how far we can take it....I study English literature, Rachel studies biology, Tyler studies law. So I think that we have managed to kind of pool our own assets and knowledge into it...so I think being open, especially when it's coming when it's working towards solutions which is like a worldwide problem like sustainability I think is very important.”

“I feel like it was really very conducive. ... we got a chance to interact with... the Biomedical's team with the graphene team. So we've gotten the chance to interact with such different fields, and people, expertise of different fields. So we get a chance to think about all these ideas. Apart

from that, once we were introduced to these competitions, which are going on, like. Venture Further or, you know, Bright Idea Networks or competitions.”

“I don't know about other people's subjects, but within psychology, we rarely meet anyone who's outside of a psychology course...our course is very literature, very focused. It's almost like. we have our modules kind of set out for us and there's only so much room we can move and manoeuvre, so I don't really get the chance to meet people who are outside.”

4. Conclusion

Based on the needs outlined in the introduction for a range of tools that could both be used for multidisciplinary collaborative work and allow a better focus on creating solutions with social impact, this toolbox was designed to help educators design and deliver a collaborative social innovation education, supporting students to understand, analyse and solve complex global challenges. The tools can be combined in different ways to design a curriculum depending on the context, whether an on-curricular course, workshop, or hackathon, which addresses issues raised about social entrepreneurship education by Roslan et al, (2022) and are ideal for cross disciplinary teaching. We added additional tools that we did not have the opportunity to use with students but have been used in other professional contexts for co-creation and gathering collective intelligence. We encourage educators to adapt and experiment with the tools in this toolbox in different contexts in higher education.

<https://www.entrepreneurship.manchester.ac.uk/resources/commons-entrepreneurship-toolbox>

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