



Using Design Thinking for Learning Development: problem-solving and authentic student co-creation

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Presentation abstract

This practical workshop engaged participants in Design Thinking (DT), a creative approach to problem-solving (Liedtka, 2018; Panke, 2019) that can be utilised for authentic student co-creation in Learning Development. In the same way that Henry Ford said his customers would ask for a faster horse, when we engaged with students, they often asked for more appointments, more workshops, and more support topics. Even when we set out to co-create, their 'ask' often remained within the frame of what we already did. The workshop explored how we could involve our stakeholders (students, academics, professional services) in a way that genuinely drew upon their varied experiences to help us make things better for everyone.

Creative approaches are already well-established in Learning Development as a tool for inclusive and engaging support (James, 2013; Sheridan, 2020; Abegglen et al., 2023). In this workshop, we supported participants in drawing upon creative approaches in DT to get to the right questions for their design needs. There is great potential to use creative expertise in the design of activities, workshops, appointments, and even the whole institutional Learning Development service(s). The workshop supported participants in using a radically different approach to design, working with stakeholders to use big thinking, creative ideation, and prototyping to deliver workable solutions.

As established in our JLDHE article (Fallin and Turton, 2025), DT poses significant potential to support Learning Developers in their partnership with students and staff. With origins in design and business, DT provides a substantial toolbox of approaches and

strategies that decentre existing narratives and open the floor to new ways of thinking (Liedtka, 2018; Quintanilla et al., 2018; Panke, 2019). This workshop gave participants hands-on experience with some of these tools and an opportunity to reflect on how they could be used in inclusive Learning Development practice.

Keywords: Design Thinking; Learning Development; service design; student partnership; creativity.

Community response

The workshop provided a dynamic and collaborative opportunity for participants to address key challenges and opportunities in supporting student success. Using a comprehensive Design Thinking (DT) approach, participants first identified a wide range of issues and challenges that impacted Learning Development (LD) practice, with a particular focus on how these are experienced by students, academics, Learning Developers, and other service users. For the next phase, each participant chose one of these issues to develop further, generating ‘how might we...?’ problem statements to focus on a solution-oriented approach. This led to 23 separate problems that became the focus of the rest of the workshop. These problems covered a wide range of themes, including: awareness and accessibility, expectations and boundaries, student engagement and motivation, building support communities, feedback and improvement, and skill development and capacity building. These themes reflect the multifaceted nature of Learning Development and the diverse needs of both students and staff.

The remainder of the session worked through multiple rounds of creative ideation, with the problem statements being passed from person to person to engage more people in the solutions. Through this process, participants were encouraged to think creatively and collaboratively, generating a variety of solutions to problem statements like, ‘How might we engage students who don’t come to LD?’ Suggestions included identifying barriers to attendance, incorporating gamification, offering multimodal learning content, and conducting student surveys to better understand their needs. Other ideas included creative promotion strategies, engaging student mentors, hosting enjoyable workshops, and recognising progress through rewards. This approach demonstrated how DT fosters innovative and actionable solutions to complex challenges.

The workshop also promoted a shared vision for enhancing Learning Development practices across the institution. It received overwhelmingly positive feedback for its engaging, interactive, and collaborative format. Participants praised its ability to address challenges effectively while fostering innovation through co-creation and partnership. Jackie Tuason, Learning Strategist at St George's University, remarked that 'by actively engaging in the co-creation process, I left with more than six potential solutions to an issue I've been struggling with for a long time. In just one hour, I gained valuable insights from experts across various fields to help me move forward!'

Reflections and key takeaways

The reflections from the workshop highlighted three key takeaways.

Firstly, the collaborative nature of the workshop underscored the value of collective input. Attendees recognised how partnerships can inspire fresh, innovative solutions. Alice Stinetorf, the session chair, captured this sentiment in her cartoon note, 'More Brains' (Figure 1), which illustrated the importance of collaboration. Rachel Horrocks-Birss from the University of Dundee shared:

when my paper returned to me and I read the suggestions, my initial response was: 'that won't work'. In the spirit of the workshop, though, I tried to adopt a more open mind and realised that several of the suggestions could be very worth trying. My initial reaction had nothing to do with the value of the ideas and was instead based on the misguided sense that I should be able to solve my problem myself. I really benefited from the collaborative nature of the workshop, with the reminder that working in partnership is the best way to develop our practice.

Figure 1. 'More Brains' cartoon drawn by Alice Stinetorf.

Secondly, the emphasis on prototyping and the acceptance of failure as vital parts of the design process resonated strongly with participants. Lee Fallin's advice to 'fail early' encouraged participants to view mistakes as opportunities for growth, helping to foster a culture of experimentation and reducing the fear of failure. Jackie Tuason reflected:

I really appreciated Dr Fallin's point about prototyping and failing early as part of the Design Thinking process. It's a helpful reminder that failure isn't a setback, but rather a valuable part of learning and improving ideas. This mindset encourages innovation and reduces the fear of making mistakes, which can often hold people back.

Finally, the practical activities provided attendees with valuable problem-solving tools, enabling them to leave the session equipped with actionable solutions. Rebecca Wilson, Head of Student Development at the University of St Andrews, noted 'one of my most significant takeaways was to ensure partnerships begin at the start of the process, not once problems have been defined!' Rebecca also reflected on the session's practicality, stating:

the introduction to Design Thinking was a great refresher, and it was very clearly explained. The best part of the session was trying to find solutions to other attendees' challenges. I find the activity simple and highly effective, and I can't wait to use it with my students and colleagues.

The session's interactive and hands-on approach left participants with not only tangible solutions but also a deeper appreciation of DT principles. As one participant summarised, 'I went in with a problem and came out with more than six solutions – how can anyone not be happy with that?'

Overall, the workshop effectively demonstrated the value of DT as a structured, creative, and collaborative approach to problem-solving. It inspired participants to adopt and apply these methods within their own contexts, fostering innovation and collaboration across the institution.

Next steps and additional questions

The DT workshop proved to be a collaborative and inclusive platform for addressing institutional challenges. Participants appreciated the structured process, the opportunity to engage with diverse perspectives, and the chance to co-create actionable solutions. Their feedback also highlighted areas where the approach could be enhanced to ensure it remains both effective and inclusive.

The following key questions, rooted in participants' reflections, aim to guide the refinement and embedding of DT practices:

1. How might we ensure that all voices are heard and valued throughout the Design Thinking process?

'It was great to work with people from different roles, but sometimes it felt like louder voices dominated the discussion'.

This feedback underscores the need for strategies that foster equitable spaces for participation, ensuring quieter individuals feel empowered to contribute fully while maintaining a balance of perspectives.

2. How might we balance creativity with structure to maintain focus and momentum?

'The structured activities kept us on track, but at times, I felt like we didn't have enough freedom to explore ideas fully.'

While participants valued the clarity and guidance provided by the framework, some felt it restricted creative exploration. How can the process be adapted to provide greater flexibility while continuing to deliver productive and focused outcomes?

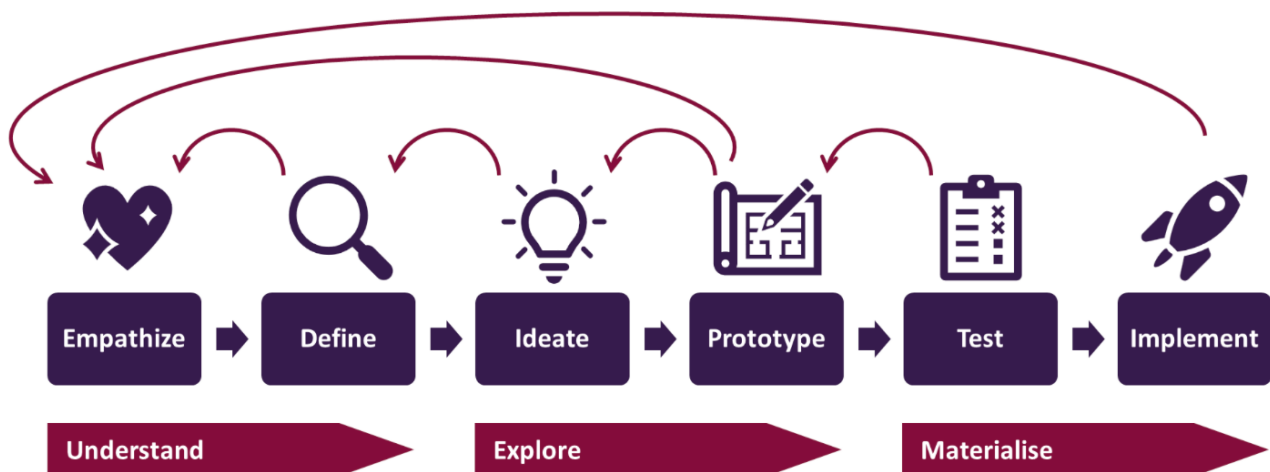
3. How might we embed the principles of Design Thinking into everyday problem-solving across the institution?

'I'd love to use this approach in my own team, but I'm not sure how to start or adapt it for our challenges.'

This reflection demonstrates enthusiasm for applying DT beyond the workshop but also highlights the need for accessible tools, training, and support to enable its effective adoption in a variety of contexts.

Authors' reflection

We very much enjoyed introducing DT to so many people through our workshop. Underpinned by the model (see Figure 2), we tried to give as many opportunities as possible for people to experience the DT process in just an hour. Although nervous about fitting in so much, we are pleased we managed to touch upon the whole process, with practical activities that help participants engage with the empathise, define, and ideate stages. As one participant noted, they came in with a problem and left with multiple solutions. Not only does this show the transformative potential of DT (Fallin and Turton, 2025), it also reassures us that the workshop had concrete outputs that were of use. This demonstrates the solution-oriented focus of DT and the value of outputs that can be used in practice.

Figure 2. Design Thinking process (based on IDEO, 2015).

Reflecting on the session outputs, we love the three identified questions and reflections on the future use of DT. These ‘how might we...’ questions show further potential in refining DT processes for use within LD. Here are our initial thoughts, but perhaps we need to workshop this further – in the true spirit of DT.

How might we ensure that all voices are heard and valued throughout the Design Thinking process?

We were thrilled to see this issue posed and see it as reflecting the spirit of LD and the principles of critical practice. However, as one participant noted, Higher Education Institutions (HEIs) too often focus on issues led by academics. Academics or professional service colleagues define the issues, and in doing so, define the boundaries of solutions. We should give that power to students. What do they see as the issues we need to solve? Asking these big questions can lead to radical changes and wholesale transformation and is not possible with the incremental change driven by traditional forms of evaluation. There are several barriers to addressing this issue, and some of these are well-publicised and researched in the students-as-partners literature (Bovill et al., 2016). Facilitating the time and space for these conversations is important, but if we are to get students to work on service design, so is compensating them for their time. As such, time and money are the common issues in this space. Yet, if we are to make progress, this is exactly where we need to invest.

Processes also need to be underpinned by experienced facilitators. Workshops can be led by the loudest voices, and so engaging with DT on a larger scale needs purposeful checks

and balances to engage the broadest number of people. DT is supposed to be democratic and participatory, and so it is important to ensure everyone has a voice, a turn, and a say as the process evolves. Furthermore, we should also design for the highest need, and in these cases, personas that capture the complex intersecting nature of student diversity can be very useful. For us, we see equity-centred design (see Rossi, 2023) as an essential (though something that fell out of the time available in our workshop).

How might we balance creativity with structure to maintain focus and momentum?

This is a tricky question, and a significant challenge in our own practice. DT tends to work at a pace, and often, time-bound activities are an essential part of the process. At first, this might appear to be bad for creativity, but DT is very much about fast thinking and multiple perspectives. Ideas do not need to be fully developed. They can be blue skies, provocative or silly, as even those solutions can lead to meaningful change. Lee gave an example of this in the workshop, with the ‘monorail solution’ to campus transport. While the use of a monorail is not practical, realistic, or affordable, it is a symbol of the problem. It shows there is an issue with getting to university. From this point, it is possible to move on to workable solutions – like a partnership with a local bus company.

As DT is almost too focused on momentum, other problems can arise. There is often little time for long conversation as the focus is on ideas, solutions, prototypes, and success or failure, all looping back into further design. Such processes might work well for designers, but rarely with academics and students. We have found that neurodiverse participants can be easily undermined by time-bound activities or excessive energy and pace. It is easy to get hung up trying to design a single event that meets all needs. Instead, it might be easier to ensure multiple means of participation; there could be high-energy workshops, but also slower asynchronous online participation, interviews, email evidence, and other ways in which people can feed in. This allows participants to choose how they engage with the process and can maintain structure and momentum while also allowing diversity and creativity.

How might we embed the principles of Design Thinking into everyday problem-solving across the institution?

There are many challenges in this space. Practical challenges are often the first that come to mind – ensuring there is the time, space, and budget to make DT happen. While these issues are relevant, it is often a case of confidence. As our workshop has shown, DT does not require a lot of money to happen in practice. A room, the right people, a couple of hours, and some stationery supplies are enough. The more significant challenge is having the power, resources, and finances to go on to develop the solutions. The biggest risk with DT is that you are set up to fail. You can identify issues and design solutions but then have none of the money to put those solutions into practice. Finally, for DT to be truly embraced, failure must be accepted. DT allows us to fail, with the aim of failing fast. This wastes a little bit of money early in development, before years of significant development and capital funding are potentially squandered. One example that comes to mind is a small budget of £100k being used to try out new furniture ahead of a £1.3 million investment in replacing the furniture for the rest of the building. Sure, some of the initial items were discarded as they did not work, but investing some money in furniture prototypes created opportunities to experiment, and ensured decisions were made based on student needs and student behaviours as opposed to the whims or assumptions of HE budget holders.

Sometimes, the most powerful result of following a process like DT can be in helping us move beyond our own assumptions. To come back to the words of one participant, if we notice and replace our ‘that won’t work’ reflex with curiosity, we can start to move away from the status quo towards more innovative and equitable design in HE. We hope that this workshop has given LD professionals the tools to adapt and leverage DT processes to this end.

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A blended Human and AI Natural Language Processing (NLP) engine was employed to analyse the community responses. The content has been refined for formatting while ensuring the integrity of the original message is preserved. In accordance with our broader policy, no other editorial processes involved the use of AI.

References

- Abegglen, S., Kamal, S., Burns, T., Akhbari, M. and Sinfield, S. (2023) '(Re)imagining higher education: an inspirational guide for academics', *Journal of Learning Development in Higher Education*, 29, pp.1-8. Available at: <https://doi.org/10.47408/jldhe.vi29.1099>
- Bovill, C., Cook-Sather, A., Felten, P., Millard, L. and Moore-Cherry, N. (2016) 'Addressing potential challenges in co-creating learning and teaching: overcoming resistance, navigating institutional norms and ensuring inclusivity in student–staff partnerships', *Higher Education*, 71(2), pp.195-208. Available at: <https://doi.org/10.1007/s10734-015-9896-4>
- Fallin, L. and Turton, C. (2025) 'The transformative potential of Design Thinking in Learning Development', *Journal of Learning Development in Higher Education*, 34, pp.1-11. Available at: <https://doi.org/10.47408/jldhe.vi34.1314>
- IDEO (2015) *The field guide to human-centered design*. Canada: Design Kit.
- James, A. R. (2013) 'Lego Serious Play: a three-dimensional approach to learning development', *Journal of Learning Development in Higher Education*, 6, pp.1-18. Available at: <https://doi.org/10.47408/jldhe.v0i6.208>

- Liedtka, J. (2018) 'Why Design Thinking works', *Harvard Business Review*, (September-October), pp.72-79.
- Panke, S. (2019) 'Design Thinking in education: perspectives, opportunities and challenges', *Open Education Studies*, 1(1), pp.281-306. Available at: <https://doi.org/10.1515/edu-2019-0022>
- Quintanilla, S. G., Chiluiza, K., Everaert, P. and Valcke, M. (2018) 'Design Thinking in higher education: a scoping review', *11th Annual International Conference of Education, Research and Innovation*, Seville, Spain 12-14 November. Available at: <https://doi.org/10.21125/iceri.2018.1663>
- Rossi, V. (2023) *Inclusive learning design in higher education: a practical guide to creating equitable learning experiences*. Abingdon: Routledge.
- Sheridan, N. (2020) 'A two-step model for creative teaching in higher education', *Journal of Learning Development in Higher Education*, 18, pp.1-22. Available at: <https://doi.org/10.47408/jldhe.vi18.574>

Further reading

- Buckley, C., Syska, A. and Middlebrook, D. (2023) 'Text-scrolling with David Middlebrook', *LearnHigher* [Video]. Available at: <https://aldinhe.ac.uk/product/learnhigher-resources/text-scrolling-with-david-middlebrook> (Accessed: 6 August 2025).

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