



The transformative potential of Design Thinking in Learning Development

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Abstract

This opinion piece argues that Design Thinking (DT) can facilitate a more empathetic and student-centred approach to service development and problem-solving in Learning Development (LD). While DT is already established within higher education, we argue it is still underutilised, especially in the context of LD. We start by unpacking the methodologies, tools, and practices that are brought together under the umbrella of DT and address the tensions inherent in adapting processes that have evolved largely out of business. We argue that by bringing the learner-centred values of Learning Development (LD) to the practices of DT, there is ample scope to embrace the creativity, innovation, and collaboration inherent in DT and to develop new LD practices that have the potential to involve learners more fundamentally in developing both our services and the scholarship of LD. It is in this context that DT can have a transformative impact on the practice of LD.

Keywords: design thinking; learning development; students as partners; peer learning; service design.

Introduction

In this opinion piece, we present design processes as a vehicle through which Learning Development (LD) can drive forward student-centred design to deliver collective, creative, and messy collaborations with the potential to deliver a big impact. By embracing the role of 'designer', Learning Developers can maximise the opportunities for empathy, creativity, collaboration, and true co-creation with students, affording the opportunity to embrace the



values of LD. We argue that by adopting the Design Thinking (DT) frameworks introduced later, Learning Developers can draw on the philosophies and practices of design, but in a way that is achievable as non-specialists in design. What is more, given that creativity and connection is conceptualised in LD in a much more holistic and human way, Learning Developers have the potential to deliver a more student-centred approach to DT. This can offer not just productive connections and positive outcomes for students and institutions, but can provide opportunities for LD to contribute to DT practice and scholarship.

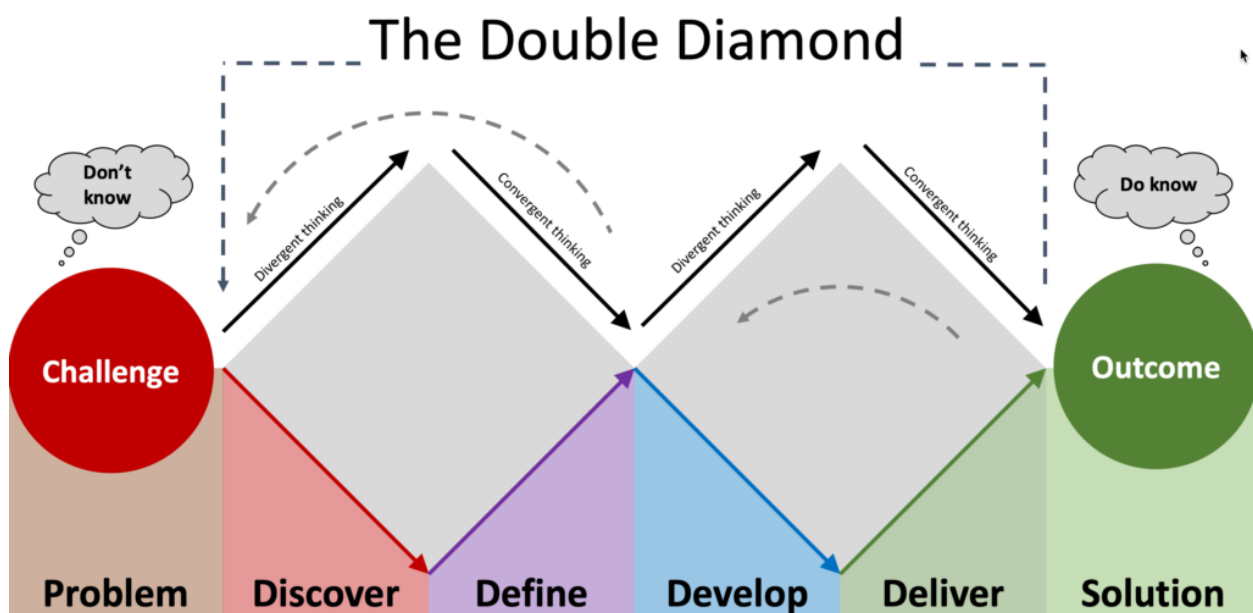
Introducing Design Thinking

Over the past 30 years, institutions have recognised their need to better understand and meet the needs of learners. This has brought about a stronger focus on the 'design' in how we conceptualise teaching practice (Goodyear, 2015), in the processes we go through to design curricula (Laurillard, 2002), and how we enhance the design of a learning experience through new design roles, such as Learning Designer and Learner Experience (LX) designers. This focus on design could be viewed as a direct import of business practices into a marketised education sector: terms such as 'learner/user experience' have crept into the discourse, especially in the context of academic libraries (Priestner and Borg, 2016), which are often framed as seats of learning. However, underpinning this whole change is the profound way technology has revolutionised all our interactions with the world around us. Businesses have responded to this shift by aiming to create simple, appealing user interfaces and well-designed services. The term 'design' has expanded to include the design of communications and experiences; there has been an increase in designer roles within business, and a major expansion of who is involved in design, to bring together intentionally diverse design teams (Kolko, 2015). Rather than recoiling at the incursion of business language into education, we must recognise that design is a shared vector in a technologically complex world. Businesses have adapted more rapidly. When we recognise that our everyday work and decision-making in institutions involves 'design', this opens our eyes to our need to develop a critical perspective on design and to more intentionally design our support for learners.

In this opinion piece, we view DT as bringing together mindsets, processes, and tools to help non-expert designers innovate in the context of the complexities of the 21st century. Many businesses have engaged in a wholesale change in business processes by adopting

DT processes (Liedtka, 2018), resulting in an agile and customer-centric approach to development. Some of the key features of DT include: working in diverse design teams, starting with empathy for the user/learner, using creativity and creative prompts to encourage divergent and convergent thinking, problematising the problem before exploring solutions, and creating quick, physical prototypes. Accompanying these processes is a mindset to ‘fail fast’ and tolerate ambiguity. From a more practical perspective, DT is a process-oriented approach to solving problems. Using the Design Council’s Double Diamond (see Figure 1) as an example of a DT approach, the process starts with empathetic stakeholder engagement to fully understand the problems, challenges, or issues they experience. This phase utilises divergent thinking and is user-focused, ensuring the impacted group defines the problem itself. After this discovery phase, convergent thinking is used to collate those problems into a firm problem statement that defines the issue to be solved. This encapsulates the objective of the project and gives all stakeholders a clearly defined and shared goal to work towards. The project then moves into development, where different solutions are prototyped with stakeholders, embracing divergent thinking to ideate as many ways forward as possible. These prototypes are tested, reviewed, or shared with stakeholders before moving forward to deliver the best solution.

Figure 1. The Double Diamond (reproduced from: Fallin, 2022 based on: Design Council, 2024).



The *Double Diamond* is one of many models, and alternative approaches to DT include the d.school model (Stanford d.school, 2024) and IDEO five-step process (IDEO, 2015).

No matter which DT model is used, by embracing the narratives of stakeholders, their stories, their needs, and their creativity, DT puts humans first and provides opportunities to break existing power hierarchies of control, facilitating the opportunity for all to be involved in the design process. While Panke (2019) demonstrates how useful these principles are in the context of education, DT is still not widely adopted, so most educational design processes centre on practitioner-defined problems. We argue that in the context of higher education, there is great potential to involve all stakeholders in the entire arc of all design processes.

Design Thinking in HE

It is important to acknowledge that design is not new to HE. As Abegglen et al. (2023a, p.527) argue:

Education and higher education (HE) are not autochthonous (sprung from the earth itself) but are designed — and have been designed over time — to suit various utilitarian purposes: to ‘civilise’ the population, to ‘school’ the public for employment, and to ‘socialise’ people into what are typically hierarchical and unjust societies.

Design, however, does not have to be a top-down process driven by governments to civilise and socialise. Within higher education (HE), Design Thinking is being experimented with as a tool to refocus institutions on student and staff needs (Panke, 2019). Uses include project, service, or curriculum design; teacher training; as a pedagogical, learning, or coaching tool; and as a practical process for students to use in their future careers (Lor, 2017; Tan, 2017; Garreta-Domingo, Sloep and Hernández-Leo, 2018; Guaman-Quintanilla et al., 2023; Newton, Mutton and Doherty, 2025).

When adopted, DT can have a significant institutional impact. For example, at the University of Hull in the United Kingdom, Design Thinking has become part of the culture of how services and projects are delivered, with the appointment of a Head of Service Design. Consultation, creative thinking, prototyping, and experimentation have become established processes to better meet the needs of the university community (Fallin, 2022). DT can also be used in a more pedagogic (Reck, 2023) or curricular-focused way (Lopez, Hammersley and Nerantzi, 2023), helping course teams to address 21st-century challenges like AI disruption and climate breakdown, preparing students for an increasingly uncertain future.

Reck's (2023) work in this area is a good example of this in the context of LD. As DT is a distinct skill set (Tan, 2017; Guaman-Quintanilla et al., 2023), it is applicable in multiple contexts. Supporting students in developing their own skills and toolkits with DT may help map a path through complex, messy realities to viable, constructive solutions (Earle and Leyva-de la Hiz, 2020). Wang (2024) presents an excellent case study of DT in curriculum design practice, utilising DT for the development of interdisciplinary programmes at a university in Southern Taiwan. These examples show the potential of DT in HE (Panke, 2019) that, when applied, decentre power from heads of service, architects, management, and course leaders, instead handing power to those that will be experiencing the courses, spaces, and services in question.

Design Thinking in Learning Development

As outlined in this opinion piece so far, DT has become established and impactful within HE, and we argue that it has the potential to drive transformative change in LD. Part of this is due to the alignment of philosophies. While LD is philosophically student-focused (Briggs, 2018), DT is operationally user-focused and provides effective tools and strategies to develop meaningful engagements with students (Guaman-Quintanilla et al., 2018; Lee and Park, 2021). Transformation within LD is often bounded within the scope of existing services, driving questions around delivering a better workshop or enhancing student support. What DT contributes is a fundamentally different approach to delivering change by starting with the co-creation of problems with user groups (Bate and Robert, 2007). In the context of LD, this allows practitioners to work with students to define new problems, often unseen by LD professionals. DT can help focus on bigger, unbound issues, helping to question what may be seen as fundamentals of practice (Auernhammer and Roth, 2021). Instead of co-creating workshops, DT allows practitioners to question if the workshop is even the right answer — and if it is not, what else LD could do to support students. This represents a ginormous question, and DT approaches like the Design Council's Double Diamond (see Figure 1 above) provide a structure through which it can be addressed in a truly collaborative way.

A DT engagement starts with a blank sheet of paper, unbounded from the current realities of service provision to help define the problem(s) impacting students (and staff). What follows is a cyclical and iterative approach to design that also generates meaningful outputs and insights throughout the design journey (Micheli et al., 2019). Such outputs can

include models, drawings, doodles, diagrams, written contributions, and spoken forms, creating an eclectic collage of experience and ideas, engaging in a truly creative process to drive change. All these contributions provide insight, and even if the outcome is not a radical transformation, it is highly likely to lead to a better workshop after all.

There is a sustained tradition of creativity in LD and a strong preference for coworking with students (Abegglen et al., 2023b). While co-creation is often promoted in LD, this is often within bounded contexts that are limited by a need to build and sustain relationships or acquire funding to pay students or reward them for their time. These existing approaches to student engagement are often project-based (students-as-partners) or service-based (peer learning), but these bound contexts can limit the opportunity for creativity. DT is distinct because it is a holistic and creative process that embraces abstraction to break down tensions in different roles and hierarchies (Mintrom and Luetjens, 2016). This is where LD can also make a valuable contribution to DT. LD is attuned to the humanising potential of creativity, and so is well-positioned to embrace the opportunities for transformation that DT affords (see also Turton, 2023). While the main outcome of a DT intervention is a set of defined problems with a range of prototypes and solutions, it also builds meaningful connections with students to deliver creative changes. DT is designed to empathise with users, and while LD has empathy with students covered, DT offers an approach to drive action from empathy, serving as a mechanism through which we may deliver LD's emancipatory potential. This also allows recognition of the power Learning Developers hold as designers and empowers students to join us in that space.

In Learning Development, there is a continued push for student involvement and partnership embodied by ALDinHE (2024) values, especially working in partnership with students (1) and embracing and respecting diverse learners (2). Despite these values, there is a disappointing engagement with participatory scholarship in LD (Fallin, 2023). We argue that in practice, there is strong progress in this area, with numerous examples of staff-student partnerships, co-developed projects, and student-led outputs. However, this has not necessarily been translated into published scholarship, which is recognised as an important aspect of developing LD as a field or profession (Syska and Buckley, 2023). In this area, DT can provide a means to structure participatory action and scholarship within LD, leading to transformative change by engaging students early in the process and creating more meaningful partnerships. Furthermore, DT can offer a more sustained engagement (Liedtka, 2018) and ongoing dialogue with students as partners, helping to recognise that potential solutions are multiple. Prototyping is an effective way to develop

things in practice as opposed to committing to a single solution and can provide fresh opportunities for connecting creatively as a design team (Lee and Park, 2021). As such, DT provides an accessible starting point for Learning Developers to engage in participatory design in a way that is based in theory, but much more flexible and practice-oriented.

Conclusion

All elements of HE are designed in some way. Design is often the result of complicated power dynamics, and the end results are not always delivered in the best interests of learners. This opinion piece has shown that there is scope to take more control in design in ways that facilitate better inclusion and creativity through co-creation and empathy. DT can give Learning Developers a framework through which they can work through design processes while also embracing risk along the way. Design does not need to be a top-down process driven by institutions or managers. LD has an established track record in delivering co-creation and student-centred projects, and in this opinion piece, we have demonstrated the transformative potential for DT to offer a different approach to service development and problem-solving in LD that is truly people-led as opposed to business-led. As HE continues to respond to outward pressures, there has never been a more important time to centre what we do on the people who matter — our learners and colleagues. This opinion piece stands as a rallying cry for the use of DT in LD.

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References

Abegglen, S., Burns, T., Heller, R. and Sinfield, S. (2023a) 'Designing educational futures: imagine a collaborative bloom', *Postdigital Science and Education*, 5(3), pp.527–534. Available at: <http://doi.org/10.1007/s42438-023-00393-w>

- Abegglen, S., Kamal, S., Burns, T., Akhbari, M. and Sinfield, S. (2023b) '(Re)imagining higher education: an inspirational guide for academics', *Journal of Learning Development in Higher Education*, (29). Available at: <http://doi.org/10.47408/jldhe.vi29.1099>
- ALDinHE (2024) *About ALDinHE*. Available at: <https://aldinhe.ac.uk/about-aldinhe/> (Accessed: 17 February 2025).
- Auernhammer, J. and Roth, B. (2021) 'The origin and evolution of Stanford University's design thinking: from product design to design thinking in innovation management', *Journal of Product Innovation Management*, 38(6), pp.623–644. Available at: <https://doi.org/10.1111/jpim.12594>
- Bate, P. and Robert, G. (2007) 'Toward more user-centric OD: lessons from the field of experience-based design and a case study', *The Journal of Applied Behavioral Science*, 43(1), pp.41–66. Available at: <https://doi.org/10.1177/0021886306297014>
- Briggs, S. (2018) 'Development of the ALDinHE recognition scheme: certifying the "learning developer" title', *Journal of Learning Development in Higher Education*, (13). Available at: <https://doi.org/10.47408/jldhe.v0i13.461>
- Design Council (2024) *The double diamond: a universally accepted depiction of the design process*. Available at: <https://www.designcouncil.org.uk/our-resources/the-double-diamond/> (Accessed: 13 June 2024).
- Earle, A.G. and Leyva-de la Hiz, D.I. (2020) 'The wicked problem of teaching about wicked problems: design thinking and emerging technologies in sustainability education', *Management Learning*, 52(5), pp.581–603. Available at: <https://doi.org/10.1177/1350507620974857>
- Fallin, L. (2022) *The double diamond: fixing higher education challenges with human-centered design*. Available at: <https://leefallin.co.uk/2022/08/the-double-diamond-fixing-higher-education-challenges-with-human-centered-design/> (Accessed: 13 June 2024).
- Fallin, L. (2023) 'Methodologies for research in learning development', in A. Syska and C. Buckley (eds.) *How to be a learning developer in higher education: critical perspectives, community and practice*. Abingdon: Routledge, pp.164–174.

- Garreta-Domingo, M., Sloep, P.B. and Hernández-Leo, D. (2018) 'Human-centred design to empower "teachers as designers"', *British Journal of Educational Technology*, 49(6), pp.1113–1130. Available at: <https://doi.org/10.1111/bjet.12682>
- Goodyear, P. (2015) 'Teaching as design', *HERDSA Review of Higher Education*, 2, pp.27–50. Available at: <https://www.herdsa.org.au/herdsa-review-higher-education-vol-2/27-50> (Accessed: 25 February 2025).
- Guaman-Quintanilla, S., Chiluita, 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>
- Guaman-Quintanilla, S., Everaert, P., Chiluita, K. and Valcke, M. (2023) 'Impact of design thinking in higher education: a multi-actor perspective on problem solving and creativity', *International Journal of Technology and Design Education*, 33(1), pp.217–240. Available at: <https://doi.org/10.1007/s10798-021-09724-z>
- IDEO (2015) *The field guide to human-centered design*. Canada: Design Kit.
- Kolko, J. (2015) 'Design thinking comes of age', *Harvard Business Review*, (September). Available at: <https://hbr.org/2015/09/design-thinking-comes-of-age> (Accessed: 17 February 2025).
- Laurillard, D. (2002) *Rethinking university teaching: a conversational framework for the effective use of learning technologies*. 2nd edn. Abingdon: RoutledgeFalmer.
- Lee, H.-K. and Park, J.E. (2021) 'Designing a new empathy-oriented prototyping toolkit for the design thinking process: creativity and design sensibility', *International Journal of Art and Design Education*, 40(2), pp.324–341. Available at: <https://doi.org/10.1111/jade.12345>
- Liedtka, J. (2018) 'Why design thinking works', *Harvard Business Review*, (September–October). Available at: <https://hbr.org/2018/09/why-design-thinking-works> (Accessed: 17 February 2025).
- Lopez, I., Hammersley, J. and Nerantzi, C. (2023) 'Uncovering people centred design in the context of curriculum and learning design in higher education', *International*

Journal of Management and Applied Research, 10(2), pp.81–92. Available at:
<https://doi.org/10.18646/2056.102.23-007>

Lor, R. (2017) 'Design thinking in education: a critical review of literature', *Asian Conference on Education and Psychology*. Bangkok, Thailand: ACEP, 24–26 May.

Micheli, P., Wilner, S.J.S., Bhatti, S.H., Mura, M. and Beverland, M.B. (2019) 'Doing design thinking: conceptual review, synthesis, and research agenda', *Journal of Product Innovation Management*, 36(2), pp.124–148. Available at:
<https://doi.org/10.1111/jpim.12466>

Mintrom, M. and Luetjens, J. (2016) 'Design thinking in policymaking processes: opportunities and challenges', *Australian Journal of Public Administration*, 75(3), pp.391–402. Available at: <https://doi.org/10.1111/1467-8500.12211>

Newton, R., Mutton, J. and Doherty, M. (eds.) (2025) *Transforming higher education with human-centred design*. New York: Routledge. Available at:
<https://doi.org/10.4324/9781003383161>

Panke, S. (2019) 'Design thinking in education: perspectives, opportunities and challenges', *Open Education Studies*, 1(1), pp.281–306. Available at:
<http://doi.org/10.1515/edu-2019-0022>

Priestner, A. and Borg, M. (eds.) (2016) *User experience in libraries: applying ethnography and human-centred design*. Abingdon: Routledge.

Reck, A-K. (2023) 'Thinking like a designer — the use of design thinking and graphic organisers in 1:1 LD sessions', *Association for Learning Developing in Higher Education Annual Conference*. Portsmouth, England, 13–14 June.

Stanford d.school (2024) *Tools for taking action*. Available at:
<https://dschool.stanford.edu/resources> (Accessed: 17 February 2025).

Syska, A. and Buckley, C. (2023) *How to be a learning developer in higher education: critical perspectives, community and practice*. Abingdon: Routledge.

Tan, A.-G. (2017) 'Cross-disciplinary creativity and design thinking', in F. Darbellay, Z. Moody and T. Lubart (eds.) *Creativity, design thinking and interdisciplinarity*. Singapore: Springer Singapore, pp.69–82.

Turton, C. (2023) 'How learning development and learning design can inform each other: reflections and discussion points', *Journal of Learning Development in Higher Education* (29). Available at: <https://doi.org/10.47408/jldhe.vi29.1080>

Wang, C.-C. (2024) 'Using design thinking for interdisciplinary curriculum design and teaching: a case study in higher education', *Humanities and Social Sciences Communications*, 11. Available at: <https://doi.org/10.1057/s41599-024-02813-z>

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