# Design Thinking in Education: Adding Collaboration, Uncertainty, Phronesis and Fairydust to Curriculum Design

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## **Abstract**

We exist in an age of supercomplexity with policy and strategies both impacting and restricting creative curriculum development and participatory classroom practices particularly in Higher Education (HE). As academic developers who have also taught undergraduate programmes we inhabit liminal space - both enacting and subject to policy - both professing and subverting practice. In this paper we outline how we have engaged in human centred curriculum design ourselves. Typically curriculum evaluation and development processes are presented to our staff-as-students as something far removed from design thinking (DT). Curriculum design emphasises thorough thinking, it is slow-paced, and continuously evaluated. DT requires trust and collaboration, open sharing of diverse and often contradicting ideas, rapid prototyping - a non-judgemental space that will help ideas develop and grow, playing with initiatives that might not work. DT encourages experimentation. We used a collaborative Practice-Based Research (PBR) approach to explore our processes to reveal how DT can be a valuable part of a more fast-paced, urgent, creative and human centred curriculum design.

**Keywords**: Collaboration, Human-Centred Design, Curriculum Design, Design Thinking, Practice-Based Research, Creativity, Active and Participatory learning

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## 1. Introduction

This short, co-written reflection was prompted by the call for papers. When we saw Design Thinking (DT) described as the open sharing of diverse and often contradictory ideas, involving rapid prototyping, with space and time to allow ideas develop and grow, allowing for the playing with ideas and approaches that might not work, we felt a deep sense of recognition: This was our approach to teaching, learning and curriculum design - and now we had a name for it.

In this reflective paper, we look back at a first-year undergraduate 'skills' or Higher Education (HE) Orientation module that we redesigned as a part of a broader restructuration of the Education Studies programme at a post-1992, inner-city, widening participation university in London, United Kingdom. While we knew what we wanted - a module that was empowering of students, all students - and that made use of a literacies approach rather than a skills approach (Lea and Street, 1998) - based on Learning Development values (ALDinHE, 2023) - with play and inclusion at the core (London Metropolitan University, 2023) - we were unsure how to make 'this work' in the context of the course and wider university structures and policies. We argue that in order to harness human centred curriculum design, it is important, even while drawing on proven learning and teaching models and approaches, to take a leap into the unknown. Equally important is openness - for learning - both within the module team, with students and the wider academic community. This aligns curriculum design with DT: "a human centred innovation process that emphasises observation, collaboration, fast learning, and visualization of ideas, rapid concept prototyping and concurrent business analysis" (Lockwood, 2010, p. 5).

## 2. Context

A few years ago our post-1992, inner-city, widening participation (WP) university experimented by moving from 15-week modules to year-long or 30-week courses. We decided 'to push' the experiment further. What could we do with a previously unloved 'skills' module if we used the curriculum itself as our ideation process - trusting ourselves as values-driven educators - and our students as actors with agency in their own learning - to create something ludic and powerful - transformative and liberatory? Becoming an Educationist was born... a creative and ludic module that harnessed active learning and arts- and problem-based practices to take our students on a journey of academic discovery (Sinfield et al., 2019). At that time, we did not know that we had unconsciously engaged in powerful and freeing DT until we looked back and reflected on our module - indeed until we accepted that the module was also a form of practice-based research for us as educators prepared to take a few risks and play with ideas that might not work. Although we did take any possible steps to ensure that if our experiment did not work, then the students would not be penalised in any way. This was 'our risk' - not 'their risk.'

## 3. Design Thinking and the Curriculum

DT, also known as human or people centred design (Grau and Rockett, 2022), is adaptable and malleable, appropriate for conditions of uncertainty, emphasising

empathy, inclusion, co-creation, playful experimentation and creativity: a human centred innovation process (Lockwood, 2010). The curriculum on the other hand is often seen as an outcomes-lead enterprise - more instructional design than an opportunity for phronesis and experimentation (Pokorny and Warren, 2021). It is in this tension that we as course leaders and learning- and academic developers operate - we wanted to take a leap and re-develop an undergraduate module that was brave and risky - tailored to the needs of our students - and our hopes for them as creative agents becoming academic on their own terms and not losing themselves in the process of successfully navigating unfamiliar HE terrain.

In the Curriculum Evaluation and Development (CED) module that we currently offer as part of our Postgraduate Certificate in Learning and Teaching in Higher Education (PGCert), participants are encouraged to carefully evaluate a curriculum 'in action' through lecturer and student feedback and discussion. If changes are to be made they should be small-scale and tentative - and themselves carefully evaluated - before the module is further refined and re-designed. Thus if planning to develop a more active or relational or compassionate or creative curriculum, the advice would be to trial a couple of sessions in the appropriate vein within a module and gather feedback before the next iteration and re-development of the module as a whole. The point is to eliminate risk rather than nurture it.

Although we 'teach' our CED lecturers-as-students that this is the process to follow, because there is value in a step-by-step approach, this was not a process that we instinctively felt at home with when redesigning our own module. We wanted and needed a wholesale and dynamic change - at a stroke. We took ourselves to be values-driven practitioners - we knew we embraced Freire (1970) and hooks (1994) - we saluted Fung (2017) and the 'connected curriculum' - as we tipped our hats to Ken Robinson (creativity) and Alan Jenkins (the ouija board model), to acknowledge the multifaceted forces that shape a curriculum design process... and we absolutely knew that our (widening participation) students had to be placed dialogically and actively as powerful agents in their own learning. With these thoughts - we sketched out our new module and put it into action. Through an instinctive DT approach, we escaped the prevailing confines of discipline and institutional power relations: cultures and practise as outlined by Abegglen et al. (2021), Luckett and Shay (2017), Trowler (2009), and Fanghanel (2009).

## 4. Becoming a Module

Arguably we adopted and adapted a form of active and participatory learning in our overarching design. We wanted the students to engage in authentic learning - learning that piqued their curiosity but also led them into their epistemic communities - and the research processes of their subjects. The module was designed to be a holistic course in and of itself: rather than following a prescribed week-by-week programme where we worked through content. We also asked the students to engage in a range of projects:

- Writing: Blogging to learn
- Multimodal Exhibition

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- Develop a Digital Me
- End of year Performance
- Reading Make it fun
- Sketch Books
- Art and Artists
- Writers and writing
- Learning Project.

(Sinfield et al., 2019, p. 27)

We also put forward a range of essentials that framed the module and the values we expected which we believed created the space and time for students to learn - and play:

#### **Essential 1 - Be there**

You ARE the course! The course happens as we talk, listen, engage and generally do stuff together. It's important that you attend - to be with your fellow students - to work together to create the course.

#### **Essential 2 - Get involved**

We want you to talk, listen, discuss and present; to make notes of usefulness; to read actively and interactively; to join in with energy and enthusiasm to all the different things that you will be asked to do; and to reflect on what you have done and why; to self-test and make your learning conscious.

#### Essential 3 - Think about it

Think about it: learning is reflective, that is, you have to think about what you have done and why. Each week, write a blog entry. You will get some guidance on this from your 2nd-year mentors. Your blogs do not always have to be written. They can be collages, drawings, photographs, etc. We want you to 'learn out loud', together.

(Sinfield et al., 2019, pp. 26-27)

The module also had several anchor points specified by the University itself. There had to be a short assessed piece of writing in the first few weeks, a longer more formal piece submitted before half/mid point - which would be built upon and submitted in a final portfolio after the thirty-week course concluded. Around these we wove as much creativity as possible. The writing expected at the beginning of the module was scaffolded by collage-making, discussion and free writing (Elbow, 1998). The midpoint submission was to be a project proposal where the students would outline the small piece of creative qualitative research they planned to undertake. This was to be into some aspect of student study practices - with the literature review scaffolded by collaborative text mapping (Abegglen et al., 2019) and the writing developed via writing workshops and peer review. The final submission was discussed in class with the students. Each had to put together a portfolio reflecting on their three favourite projects; with their completed research project; and a final meta-reflection which could be in the form of a short essay - or something more creative.

To build student confidence holistically, even beyond a literacies approach and across the module, we had blind drawings, collages, poetry, short stories, board games, cabinets of curiosity, sculptures, 3D artefacts, films, role plays, music and dance - whilst they were prepared for analysing the data they were themselves collecting - creatively and playfully. "In many ways, we designed a module stripped of what people normally see as 'content' and focussed on process..." (Sinfield et al., 2019, p. 24).

Towards the end of the module the students themselves took over the teaching of the course - designing in groups interactive and playful workshops to teach new things or to playfully revise what they determined were key learning points in the module. At the end the students acknowledged that it was the most challenging module - but also the most creative and engaging and the one where they could make sense of all the other modules: DT in action for them as well as for us.

## **5. Practice-Based Research**

In HE, Practice-Based Research (PBR) is typically anchored in arts-based subjects where, in order to explore their research question, the practitioner or artist-researcher makes something or some things as part of the research process. The making is generally thought to be driven by the unconscious, being 'goal less', so that the research itself is exploratory and embedded in a creative practice (Candy, 2006) - and recognition comes through engagement with and analysis of the outputs.

As educationists we have always believed that teaching in and of itself is also an art and an arts-based practice - and had been hoping to be able to harness PBR as part of our research-informed teaching practice - but where and how? Given the strictures noted above on the typical curriculum design approach, it seemed impossible that we could position our practice as art - and thus legitimise an emergent approach to both a more human centred curriculum design and to curriculum research. Then we saw this Call for Contributions that also says: "There is a need to carry out further research into the benefits and potential challenges and barriers offered by design thinking in the context of curriculum and learning design in higher education" - and took the opportunity to reflect on our own practice in exactly the way that we hoped PBR would allow. We explored that Becoming module as artistic output - to see what that revealed back to us about our practice, our approach to teaching, learning and assessment - and to curriculum design.

We would argue that we have surfaced the DT in our curriculum design approach - and at the same time underscored the power of a more emergent and dynamic approach to curriculum design overall. We believe that our PBR process has revealed that it is possible to harness DT in the curriculum development process - and that is now something that we can address in and across our PGCert, and not just in the CED module.

## 6. Clap Your Hands: Conclusions and Recommendations

Curriculum design is typically posited as a slow and steady developmental process, rational, linear and wrapped in formal academic and university regulations and procedures. This very goal oriented and prescriptive discourse can act as a straitjacket

to the sort of creative, collaborative and emergent thinking needed in these supercomplex times where innovative learning and teaching approaches are required - and risks need to be embraced and taken. We felt an urgent need to radically and collectively co-design a stimulating new module - that would provoke student engagement and interest - as it drew them into authentic engagement with learning and with becoming the academics they wanted to be. We needed a human centred curriculum: curriculum as rhizome, as nomadic, street fighting space that opens possibilities (Deleuze and Guattari 2005).

In reflecting on and analysing the module that we created, we found ourselves to be instinctively harnessing DT to build our new and liberatory creative curriculum: Becoming an Educationist. The bonus is that we also found that human centred curriculum design can be our art - and our PBR: the fairydust that's needed in education. The next step is to build that even more overtly into our PGCert modules for our lecturers-as-students to experiment with in turn. We need to encourage them to be more 'bold' in their own learning, teaching and, very importantly, in their research practice. We require our undergraduate students to take huge risks, to embrace uncertainty and productive failure - but how can we do that if we do not accept phronesis and emergence ourselves? DT curriculum design can be that 'big' change needed if we are putting the humans involved centre stage.

## 7. References

- 1. Abegglen, S., Burns, T., Middlebrook, D. and Sinfield, S. (2019), "Unrolling the text: Using scrolls to facilitate academic reading", *Journal of Learning Development in Higher Education*, Vol. 14. https://doi.org/10.47408/jldhe.v0i14.467
- 2. Abegglen, S., Dall'Ara, E., Livesey, G., Neuhaus, F. and Taylor, M.-E. (2021), *Design studio matrix: Supporting the decision-making process as part of a reflective practice*, Calgary: University of Calgary. http://hdl.handle.net/1880/113442
- 3. ALDinHE (2023), *About ALDinHE*, available from: <a href="https://aldinhe.ac.uk/about-aldinhe/">https://aldinhe.ac.uk/about-aldinhe/</a> [Accessed on 1 July 2023]
- 4. Candy, L. (2006), *Practice based research: A guide. CCS Report*, Vol. 1, No. 2, pp. 1-19.
- 5. Deleuze, G. and Guattari, F. (2005), *A thousand plateaus: Capitalism and schizophrenia*, Minnesota: University of Minnesota Press.
- 6. Elbow, P. (1998), *Writing without teachers*, 2<sup>nd</sup> Edition, Oxford: Oxford University Press.
- 7. Fanghanel, J. (2009), "The role of ideology in shaping academics' conceptions of their discipline", *Teaching in Higher Education*, Vol. 14, No. 5, pp. 565-577. https://doi.org/10.1080/13562510903186790
- 8. Freire, P. (1970), *Pedagogy of the oppressed*, New York: Continuum.

- 9. Fung, D. (2017), *A connected curriculum for higher education*, London: University College London Press
- 10. Grau, S. L. and Rockett, T. (2022), "Creating student-centred experiences: Using design thinking to create student engagement", *The Journal of Entrepreneurship*, Vol. 31, No. 2, pp. 135–S159. https://doi.org/10.1177/09713557221107443
- 11. hooks, B. (1994), *Teaching to transgress: Education as the practice of freedom.* New York: Routledge.
- 12. Lea, M. and Street, B. (1998), "Student writing in higher education: An academic literacies approach", *Studies in Higher Education*, Vol. 23, No. 2, pp. 157-172. https://doi.org/10.1080/03075079812331380364
- 13. Lockwood, T. (2010), "The bridge between design and business", *Design Management Review*, Vol. 21, No. 3, p. 5. https://doi.org/10.1111/j.1948-7169.2010.00072.x
- 14. London Metropolitan University (2023), *Education for social justice framework*, available from: <a href="https://www.londonmet.ac.uk/about/equity/centre-for-equity-and-inclusion/a-fair-outcomes-approach-to-teaching-and-learning/the-degree-awarding-gap/education-for-social-justice-framework/ [Accessed on 1 July 2023]</a>
- 15. Luckett, K. and Shay, S. (2017), "Reframing the curriculum: A transformative approach", *Critical Studies in Education*, Vol. 61, No. 1, pp. 50-65. https://doi.org/10.1080/17508487.2017.1356341
- 16. Pokorny, H. and Warren, D. (Eds.) (2021), *Enhancing teaching practice in higher education*, London: Sage.
- 17. Sinfield, S., Burns, T. and Abegglen, S. (2019), "Exploration: Becoming playful the power of a ludic module", In: A. James, A., and Nerantzi, C. (Eds.). (2019), *The power of play in higher education: Creativity in tertiary learning*, Cham, Switzerland: Palgrave Macmillan, pp 23–31. https://doi.org/10.1007/978-3-319-95780-7\_2
- 18. Trowler, P. (2009), "Beyond epistemological essentialism: Academic tribes in the twenty-first century". In: Kreber, C. (Ed.), *The university and its disciplines: Teaching and learning within and beyond disciplinary boundaries*, New York: Routlegde, pp. 181-195.