

Design Thinking as Transformative Educational Practice





Working with

UNCERTAINTY

is our new normal state.

**Rebecca Davis (2013)
Aberystwyth University, UK**



Beginning with CRAZY ideas



Seeking help from others



Making the CRAZY idea work



Transforming connected lives

[We] need
to mutate
or face potential
natural selection
and/or extinction.

Are you
ready?





Design thinking can help us.



PEAC Concurrent Workshop: Wednesday 29th November 14.00– 16.00	
14.00 – 14.15	Introducing Design-thinking as Human-Centred Design: We introduce human-centred design as a design thinking approach and outline ways that educators can re-frame their mindsets. From empathy to growth to collaboration, by posing focused questions we encourage participants to explore the possibilities for human(learner)-centred design through reflecting on and developing and applying alternative mindsets and methods to educational challenges.
14.15 – 14.30	Immersion-Mindset and Method: Workshop Activity Working in groups, participants are given an educational issue to explore. Focusing on this issue, they are asked to apply human-centred design mindsets and methods to identify and frame a specific design challenge for their group.
14.30-15.00	Ideation-Mindset and Method: Workshop Activity Working in groups, participants focus on their specific design challenge, and are supported in applying different mindsets and methods to start to develop ideas, working in iterative ways from visualisation to rapid-prototyping.
15.00-15.20	Ideation-Mindset and Method: Workshop Activity Participants identify and work on their preferred 'big' idea.
15.20- 15.30	Ideation, Iteration, Infrastructure: Workshop Activity Working with a partner group, groups exchange their 'big' ideas. Each group tests and refines their partner group's big idea, providing 2 or 3 key feedback points. Big ideas and feedback are returned to original groups.
15.30- 15.45	Ideation, Iteration, Infrastructure and Sharing Ideas Working in groups, participants respond to partner group feedback to finalise their big idea. They describe their developed idea in no more than 50 words to create their ideas wonderwall entry.
16.45. – 17.00	Conclusions

Characteristics of Design Thinking

- creative-critical thinking
- opportunity & problem identification and solving
- team work and collaboration
- entrepreneurial and business acumen
- resilience
- flexibility and a 'can do' attitude
- self-confidence
- appreciation of and ability to plan
- using mistakes and criticism helpfully
- making ideas
- communication

Human(Learner)-Centred Design

Human-centred design is a creative approach to identifying and solving problems.

It is an approach to design thinking that starts with the people you are designing for and ends with new solutions that are focused on meeting their needs.

Human-centered design is uniquely situated to arrive at solutions that are desirable, feasible, and viable. By starting with humans, their hopes, fears, and needs, you can quickly uncover what's most desirable.

Human(Learner)-Centred Design **Process**

- Human-centered design isn't a linear process
- It involves three main phases: **Inspiration**, **Ideation** and Implementation
- By going through each phase in turn, the aim is to build deep understanding of the education communities and individuals you're designing for, working out how to turn what you've learned into opportunities to design transformative solutions, building and testing your ideas before putting them out into the world

Human-Centred Design **Concepts**

- **The Process:** suggested phases of design
- **Mindsets:** mental attitudes and approaches you can develop
- **Methods:** how you can go about each phase

IDEO method cards

<https://www.ideo.com/post/method-cards>

Learner-Centred Design Contexts

In your pack you will find a design context.

From this you will frame/identify an opportunity to transform educational practice through application of human-centred design thinking.

Contexts:

- Classroom spaces are traditional and fixed in layout and furniture
- Curriculum is compartmentalised into separate packages of content
- Assessments are disconnected from the learner and their holistic progression
- Local culture is not included in the curriculum
- Large class sizes are seen to support didactic teaching
- School development initiatives are not supported by local government and private sector agencies/industries
- Scheduling of classes is inflexible and restrictive
- Out of school visits and field trips are undervalued as learning experiences

INSPIRATION

In this phase, you'll learn how to better understand people. You'll observe their lives, hear their hopes and desires, and define your design area/challenge.

IDEATION

In this phase you'll make sense of everything that you've heard and seen, you'll generate lots of ideas, identify opportunities for design, and test and refine your solutions.

IMPLEMENTATION

This phase is your chance to bring your solution to life. You'll work out how to get your idea to market and how to maximise its impact in the world.



17	Mindsets
19	Creative Confidence
20	Make It
21	Learn from Failure
22	Empathy
23	Embrace Ambiguity
24	Optimism
25	Iterate, Iterate, Iterate

29	INSPIRATION METHODS
31	Frame Your Design Challenge
34	Create a Project Plan
35	Build a Team
36	Recruiting Tools
37	Secondary Research
39	Interview
42	Group Interview
43	Expert Interview
44	Define Your Audience
45	Conversation Starters
49	Extremes and Mainstreams
52	Immersion
53	Analogous Inspiration
57	Card Sort
60	Peers Observing Peers

Mindset Focus

EMPATHY

Empathy is the capacity to step into other people's shoes, to understand their lives, and start to solve problems from their perspectives. Human-centered design is built on empathy, on the idea that the people you're designing for will guide you to innovative solutions.

By putting ourselves in the shoes of the person we're designing for, human-centered designers can start to see the world, and all the opportunities to improve it, through a new and powerful lens.

Method Focus

IMMERSION

Immersing yourself in another world not only opens you up to new creative possibilities, but it allows you to leave behind preconceived ideas and outmoded ways of thinking.

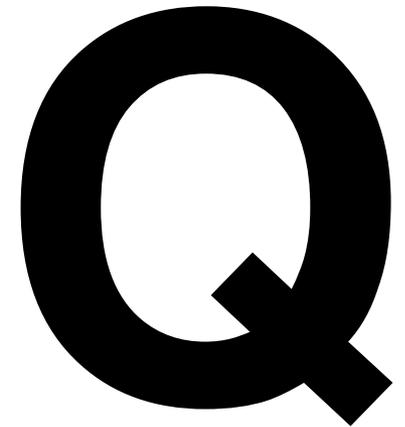
FRAME YOUR DESIGN CHALLENGE

We have given you a design context. From this you will develop a specific **design opportunity**.

Let's start inspiration by framing a **design opportunity...**

This should be short and easy to remember, a single sentence that conveys what you want to do.

We often do this by asking questions which set you and your team up to be solution-oriented and to generate lots of ideas along the way.



Q: What is the problem you are trying to solve?

Classroom spaces are traditional and fixed in layout and furniture

Q: How might you frame this as a design question?

How might we use class space to support learning in more creative ways?

Q: What is the ultimate impact you're trying to have?

Q: What are possible solutions to your problem?

Q: What are some of the context and constraints you're facing?
(technological, geographical, institutional, time-based etc.)

Q: Does your original problem need tweaking? Try it again.

INSPIRATION

In this phase, you'll learn how to better understand people. You'll observe their lives, hear their hopes and desires, and define your design area/challenge.

IDEATION

In this phase you'll make sense of everything that you've heard and seen, you'll generate lots of ideas, identify opportunities for design, and test and refine your solutions.

IMPLEMENTATION

This phase is your chance to bring your solution to life. You'll work out how to get your idea to market and how to maximise its impact in the world.

Ideation

By going really **big** and **broad** during the Ideation phase, we dream up all kinds of possible solutions.

Because the aim is to have an impact in the world, we have to then identify what, among that big, broad range of ideas, has the **best shot at really working**.

You'll **diverge** and **converge** a few times, and with each new cycle you'll come closer and closer to a human-centred solution.



- 17 **Mindsets**
- 19 **Creative Confidence**
- 20 **Make It**
- 21 **Learn from Failure**
- 22 **Empathy**
- 23 **Embrace Ambiguity**
- 24 **Optimism**
- 25 **Iterate, Iterate, Iterate**

Mindset Focus

CREATIVE CONFIDENCE

Creative confidence is the quality that human-centered designers rely on when it comes to making leaps, trusting their intuition, and chasing solutions that they haven't totally figured out yet.

It's the belief that you can and will come up with creative solutions to big human problems and the confidence that all it takes is to act. Creative confidence will drive you to make things, to test them out, to experience failure, but to keep on rolling, secure in the knowledge that you'll get where you need to go and that you're bound to innovate along the way.

It can take time to build creative confidence, and part of getting there is trusting that the human-centered design process will show you how to bring a creative approach to whatever problem is at hand.

Mindset Focus

OPTIMISM

Optimism is the embrace of possibility, the idea that even if we don't know the answer, that it's out there and that we can find it.

Optimism makes us more creative, encourages us to push on when we hit dead ends, and helps all the stakeholders in a project to work together.

Human-centered designers are persistently focused on what could be, not the countless obstacles that may get in the way.



75 **IDEATION METHODS**

77 Download Your Learnings

78 Share Inspiring Stories

79 Top Five

80 Find Themes

81 Create Insight Statements

84 Explore Your Hunch

85 How Might We

89 Create Frameworks

94 Brainstorm

95 Brainstorm Rules

97 Bundle Ideas

101 Get Visual

104 Mash-Ups

105 Design Principles

108 Create a Concept

109 Co-Creation Session

110 Gut Check

111 Determine What to Prototype

113 Storyboard

118 Role Playing

119 Rapid Prototyping

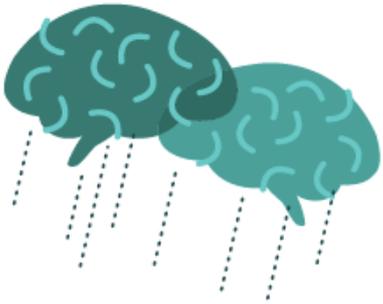
123 Business Model Canvas

126 Get Feedback

127 Integrate Feedback and Iterate

Method Focus

BRAINSTORM

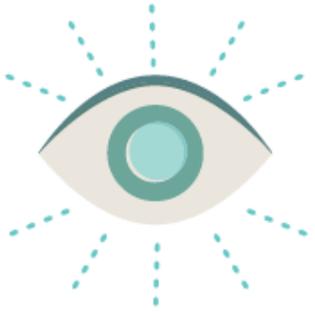


Energize your team and drum up a staggering amount of innovative ideas.

Brainstorms are a way of recording collective thinking about a question, topic or idea. Brainstorms work best when the group is positive, optimistic, and focused on generating as many ideas as possible.

Method Focus

GET VISUAL



Incorporating drawing, sculpting, and building into the Ideation phase can unlock all kinds of innovative solutions.

Even though some people are naturally more visual and will express themselves easily through pictures, everyone can benefit from thinking visually.

Getting visual makes ideas more tangible, and helps clarify your thoughts for your team.

Method Focus

RAPID PROTOTYPING



Build your prototypes quickly, share them immediately, and keep on learning.

For human-centered designers, Rapid Prototyping is an incredibly effective way to make ideas tangible, to learn through making, and to quickly get key feedback from the people you're designing for. Because prototypes are meant only to convey an idea—not to be perfect—you can quickly move through a variety of iterations, building on what you've learned from the people you're designing for.



RE-DIRECTIONS!!!

Can you evidence that
your idea will have a low
impact on climate change
and the environment?



RE-DIRECTIONS!!!

Can you identify how
learners and learning
drive your idea?



RE-DIRECTIONS!!!

How will you involve
accredited providers,
consultants or advisors to
develop your idea?

WONDERWALL

Describe your idea

1 side of a postcard

50 words (max)

Pin to the wall

For example...

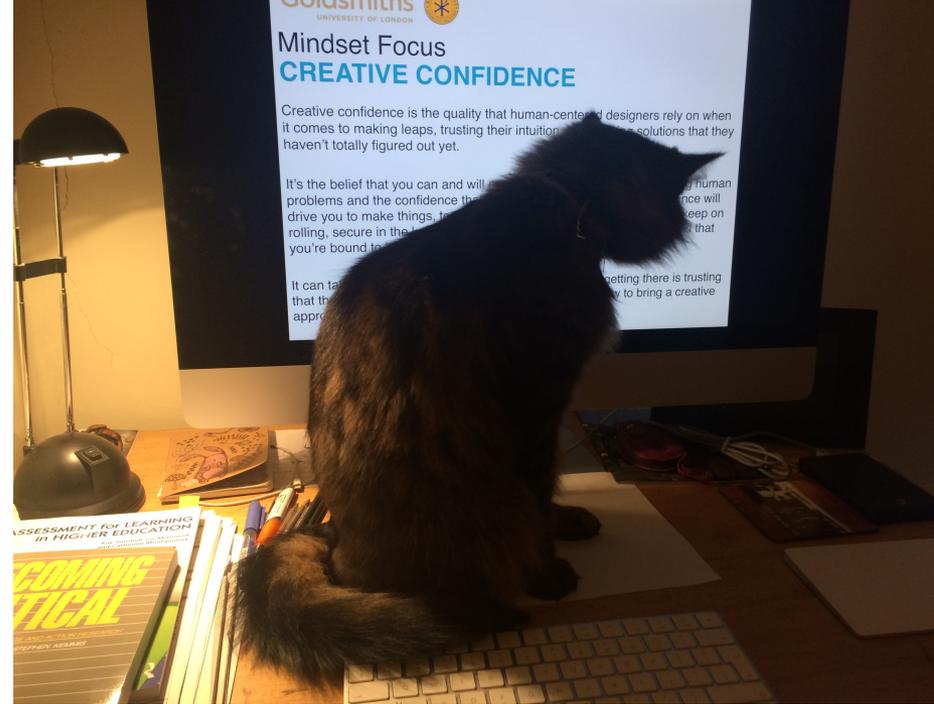
Stories from Scratch: Our idea is to design a learning experience where teachers and students work together to use speculation and story-making to create new memories and new interactions with our surroundings, thus developing new awareness of the relationship we hold with our school environment. (45 words)

Please come to see me.

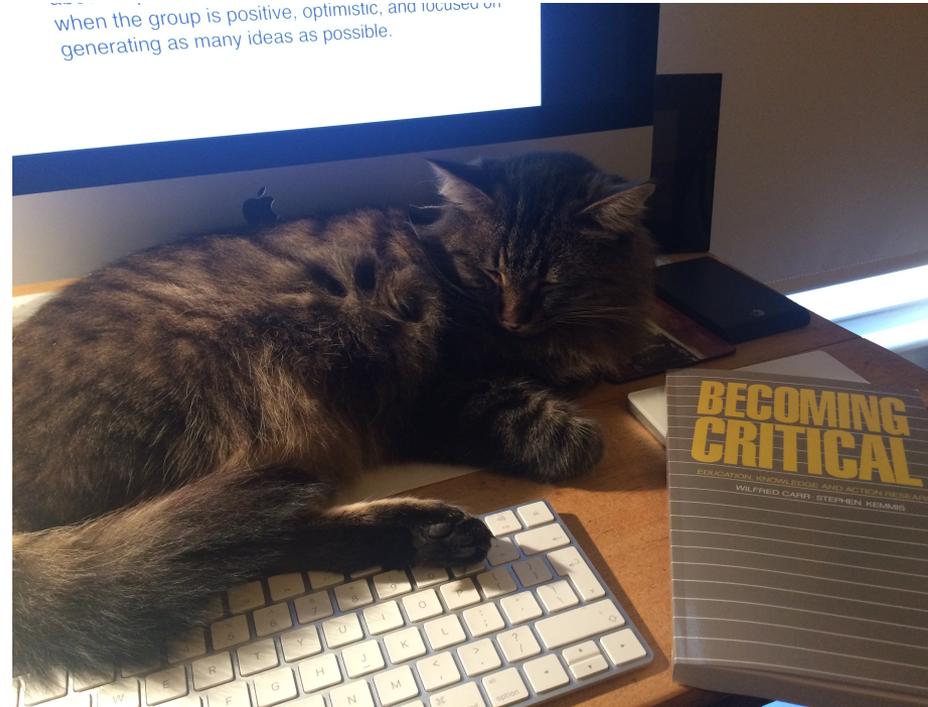


Conclusions

#transformPEC2017
#PhEduCon2017
#AchievingKto12Goals



when the group is positive, optimistic, and focused on generating as many ideas as possible.

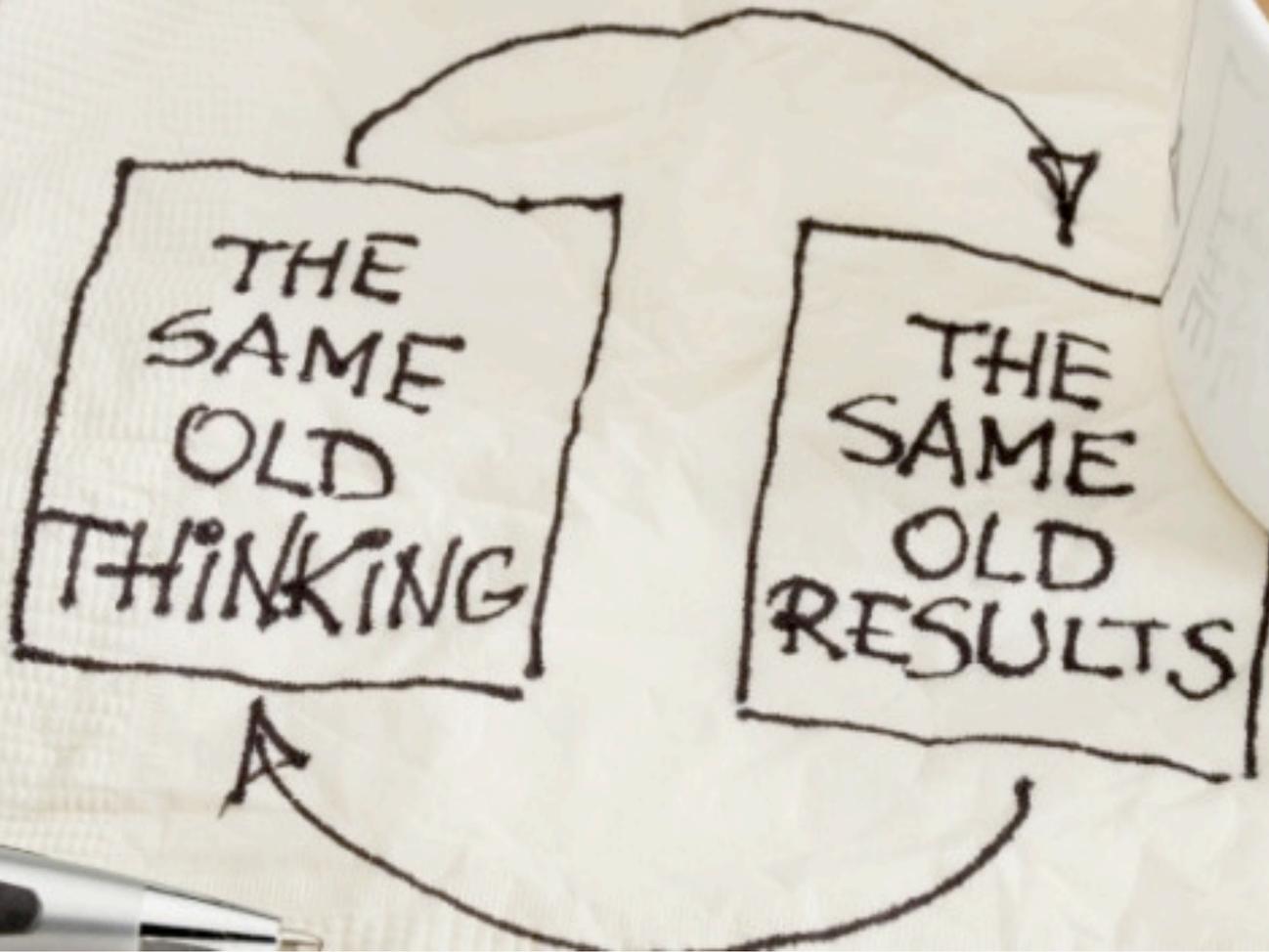




**USE THE DROP BOXES
AS YOU EXIT.**

**Clips, scissors, pens, and
other reusable materials**

So we can train more people and save the world!



**Design thinking
is a driver
of visionary growth.**

The logo for "AMBISYON Natin 2040" features a stylized sun with rays above the word "AMBISYON" in orange and yellow, and "NATIN 2040" in blue and red to the right.

AMBISYON NATIN
2040

The Life We Want



May the spirit
of design
thinking inspire
you to make
Christmas and
always a
celebration
of transformative
practice!

