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*Original Paper*

## Course Design Dispositions for Creativity and Innovation in Vocational Education and Training

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### Abstract

Vocational education and training (as a unified endeavour) has to balance the current needs of the industry for which it is preparing its trainees with their long-term continuing professional development expectations as professionals and as citizens. Creativity and innovation can satisfy both the need and the want, more urgent than ever now as we face a post-Covid world.

### 1. Introduction

Innovation and creativity are vitally important to the evolution of education (Gurteen, 1998). Their scope of creativity and innovation is sometimes more honoured in the breach when the emphasis in vocational education and training is almost exclusively on the training (Laurence, 2012; McIntosh, 2015)!

That being said our in-depth knowledge about the “Human centred” design philosophy is intrinsically valuable in more ways than one (Valerie, 2013). With plans for the development of new courses and the refinement of some existing courses it is appropriate to consider the issues of innovation and creativity in course design. Kenvale tries to do this with a balance of 40% in the learning environment and 60% in the industrial context.

Throughout our teaching careers we have, more often than not, found ourselves at a cross road of opportunities, some that we grabbed by the horns, reframed into challenges and then overcame. But there have always been those that fell into the bucket of missed opportunities for a variety of reasons or external influences. A lot of us missed opportunities for smaller innovations were because we tend to focus more on that ground breaking idea, thought or new innovation - that elusive golden egg.

We personally relish the idea of ground breaking innovations as much as anyone, but therein lies one of our biggest road blocks when we talk about ideal conditions for sustaining innovation within our educational institutions. If we are to nurture a culture for growth and innovation, it is crucial that we celebrate and recognise all forms of innovation no matter how big or small. It is more than being competent in current tasks, because no industry can survive “unless it aims for the stars” – “dream and your dreams will fall short!” (Casciaro, 1996).

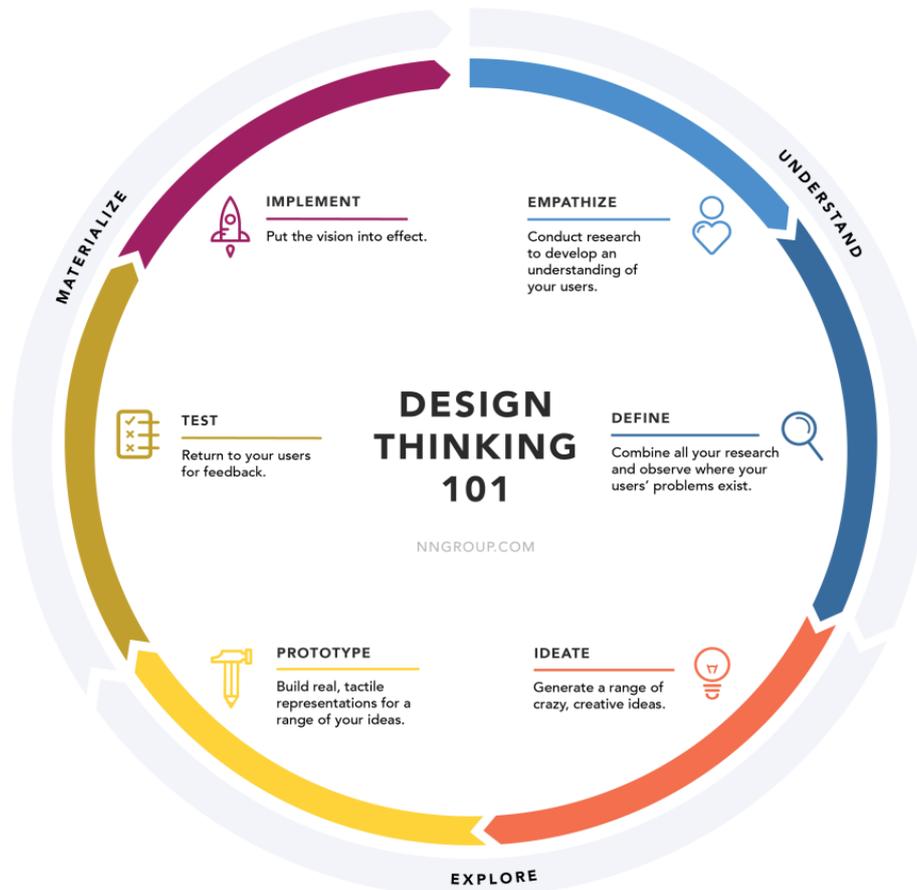
### 2. Design Thinking

According to Gibbons, ‘Design has been practiced for ages: monuments, bridges, automobiles, subway systems are all end-products of design processes. Throughout history, good designers have applied a human-centric creative process to build meaningful and effective solutions’ (Gibbons, 2016).

From past experiences we have learnt that the most successful innovations have been those in which the design team has answered the unmet needs of the target audience. In today’s educational space unfortunately, these lines seem to have become blurred and the design element only comes into the equation as an afterthought: utilised predominantly to touch up or enhance the marketability of a course.

The interesting factor to note here is that the target audience for these courses is the same group that initially had unmet needs, who are now, sold a course they think has answered those deficiencies: only to realise later that the deficiencies still exist, hence perpetuating the cycle.

In our experience when faced with challenges within the teaching space, we have learnt to focus on the Who, What and Why as this helps us and our colleagues understand the possible deficiencies that we might encounter. It also gives us an understanding into what motivates and drives engagement with the user. The objective is to be able to gather enough information about our learners: to see things from their perspective, while at the same time empathizing with their actual situation.



**Design thinking 101 (Gibbons, 2016)**

A persistent problem within our own educational work space has been the gap that exists between student expectations (what a particular course will give them in terms of being industry ready) versus what industry expects from the student upon graduating. This can be looked upon as the narrative, the definition of our thinking process, where a combination of internal and external research, has pinpointed an urgent need for change, a need to innovate and look holistically within our delivery process.

However, exciting this maybe, the part where it gets really interesting is at the stage of ideation - where we began to really understand and pinpoint what the unmet student needs were. The students developed a feeling of being short-changed, an anxiousness that the course under delivered on what was promised. Industry on the other hand remains disgruntled and calls for government reforms into the sector. These conditions were less than ideal and presented a multitude of challenges (some still ongoing) along the way.

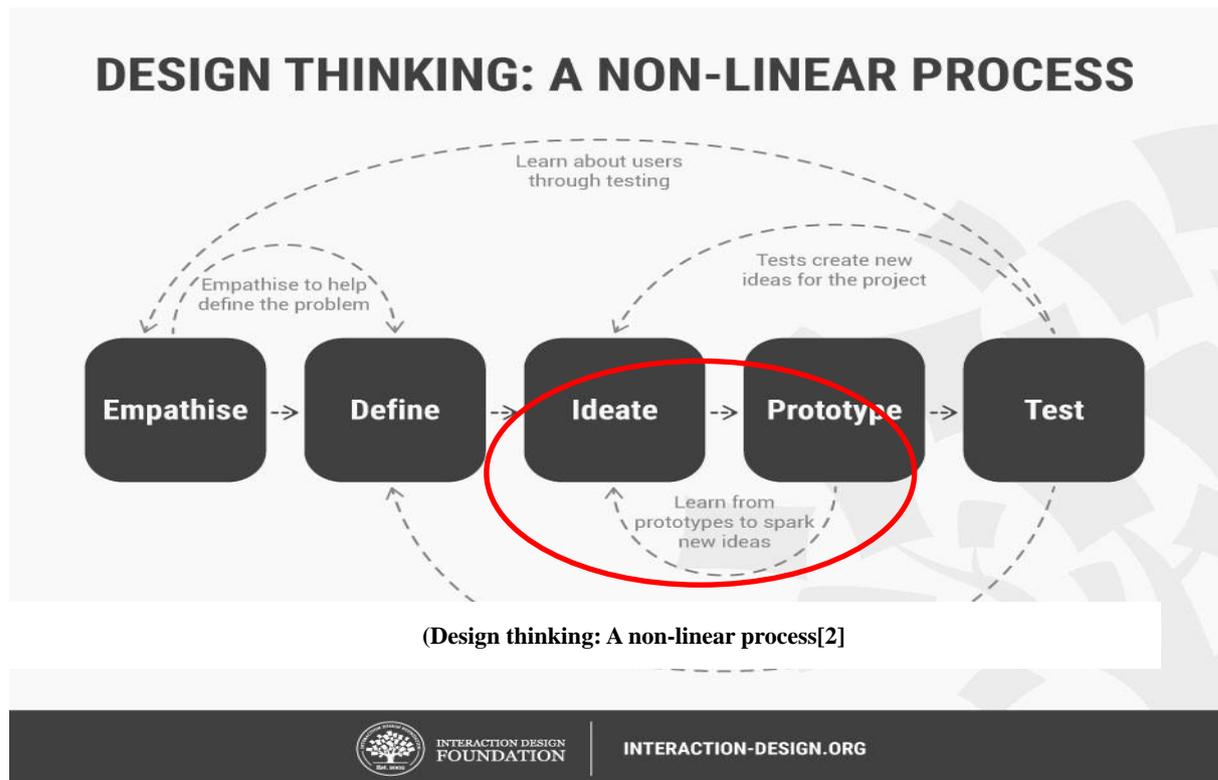
### 3. Overcoming Challenges (Prototyping, Testing, Implementation)

We started with the simple task of identification, realising that to change peoples' behaviours and thought processes we would need to make it as simple as possible. According to Hanson, "Anytime you're trying to change people's behavior, you need to start them off with a lot of structure, so they don't have to think. A lot of what we do is habit, and it's hard to change those habits, but having very clear guardrails can help us" (Hanson, 2018).

Now armed with a prototype and theoretically working model we decided to target a small group of students and their corresponding lecturers. The first phase of this process was the introduction of the concept. Here we pitched our idea with an aim to show the target audience why these ideas worked and how they would help bridge the gap. We collected feedback, readjusted the prototype to reflect these.

For our team one of the building blocks at this point in the design thinking life cycle was to present a working solution that solved unmet needs while also bridging a variety of other shortfalls. After feedback collection and tverking, we were now ready to start validating ideas that could be tested in the next phase of the process.

According to Dam and Siang (2020): "One of the best ways to gain insights in a Design Thinking process is to carry out some form of prototyping. This method involves producing an early, inexpensive, and scaled down version of the product in order to reveal any problems with the current design. Prototyping offers designers the opportunity to bring their ideas to life, test the practicability of the current design, and to potentially investigate how a sample of users think and feel about a product".



The critical point, being depicted in the red circle above was the opportunity to learn from the prototype and spark new ideas. This helped us reveal gaps and insights into our own system, that once fixed would better aid with the testing phase of the process (Mcintosh, 2015).

#### 4. In Retrospect

Having gone through the design thinking process the main dispositions required from us and our team were:

- the disposition toward sustained intellectual curiosity,
- the tendency to wonder, probe, find anomalies and
- at times be prepared to think outside the box.

This can be followed through with the disposition to clarify, evaluate and strategically execute, hence resulting in a solution that is not only human centred but also delivered tangible benefits which became clear to the trainees and obvious to their employers (Matthews & Wrigley, 2017). This is the start of a conversation within a college and between education and industry, particularly in the post-Covid environment.

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