Threshold Concept #1	Entrepreneurship is a Practice
In Practice	Practitioners understand that entrepreneurship is a practice that anyone can use in any context to create new value. It is a way of doing things, a way of thinking and practicing or a way of seeing the world, that manifests as creation of value in response to opportunities and challenges. Practitioners know that entrepreneurship is not a badge or a status or a goal, it is not something you 'achieve' or an exclusive club to join. Practitioners understand that things can be approached or completed in 'more' or 'less' entrepreneurial ways and that these ways can be learnt, developed, and enhanced through use and practice.
In Theory	Entrepreneurship can be considered as a set of personal attributes, the exercise of which can be related to situational opportunities in an enterprise culture (Gibb, 2007), as a heuristic or method used by entrepreneurs (Sarasvathy, 2009), or as a practice, or even a set of practices (Neck, Greene, and Brush, 2014), that its practitioners use to spot, create, evaluate, and develop value in the world regardless of their context and self-identification.
Examples of students "getting it"	Willing to apply entrepreneurial thinking to any/all tasks and contexts rather than specific venture-creation tasks. Willing to self-identify as an entrepreneur in a manner that is neither arrogant nor naïve. Seeking and finding examples of entrepreneurship well beyond the 'business' or 'Startup' context from whom they can draw inspiration and examples of practice. Taking a reflective approach to their own practice and seeking to evolve their own practice through conscious thought.
Examples of students "not quite getting it"	Being overly status- or output-focused in discussions of entrepreneurship. Only seeing 'business' or 'start-up' examples and exemplars as legitimate sources of guidance, feedback, or inspiration. Only using entrepreneurial approaches in specific venture-creation-type contexts.
Threshold Concept #2	Your Context is Your Opportunity to Create Value
In Practice	Practitioners habitually and constantly create and recognise opportunities within their own context to create value. Practitioners are habitually resourceful and make use of what they find to realise and exploit opportunities to create value.

	Practitioners are curious about the world, passionate about what interests them and tend towards making connections that develop their passions into intentions.
In Theory	All contexts contain within them opportunities for value-creation, but the perception and evaluation of opportunity is ultimately subjective (Shane, 2003).
	The history of innovation and creativity more generally is rich with examples of breakthroughs and ventures developed in response to the context of the inventor or entrepreneur (see the works of Stephen Johnson such as "Where good ideas come from", and Tim Harford "50 Things that Made the Modern Economy" and "Messy").
	Effectuation Reasoning in general and the Bird-in-Hand Principle (Sarasvathy, 2008) in particular highlights the value of starting from what you already have access to, be those resources or insights.
	Causal Reasoning is also valid here, recognising the importance of determining what is required if a particular end is sought.
Examples of students "getting it"	Coming up with lots of possibilities inspired, motivated, and connected to their own past, present and future contexts.
	Seeing how just about anything can be improved.
	Constantly "collecting" contacts, expanding both their networks and knowledge base to enrich their resource profile.
	Interested in and curious about how things they encounter might connect back to their own ideas.
	Finding new and creating new ways of doing things, turning situations to their advantage.
	Seeing ways in which connections could be made between the ideas of other people to create value – joining the dots.
Examples of students "not quite getting it"	Producing lots of ideas but instantly following them with reasons why they "can't" work.
	Dreaming, fantasising about opportunities that are disconnected from themselves "pie in the sky" – or would only be possible if unchangeable factors were changed.
	Overly willing to accept the status quo.
Threshold Concept #3	**Value is Defined by Others**

In Practice	Practitioners are aware of their positionality and seek to understand the positions of others to establish or validate the value of their ideas. Practitioners understand only other people can define the value of what they have created, and others demonstrate the value they place on what is being offered by being prepared to give something tangible or intangible in exchange for it (money, time, goodwill etc).
In Theory	Whilst according to Henry Ford and Steve Jobs, the customer may not always know, or be right about what they need or want, the failure to find a market is the single biggest reason for start-up failure (CB Insights, 2019). "If I'd have asked people what they wanted, they would have said faster horses", Ford (apocryphal) "Customers don't know what they want until we've shown them", Jobs, 1982. "The customer isn't always right, but he is the customer", Ford (apocryphal) The value of any product or service is determined by its users and by the service they put it to rather than the value attached to the product or service by its producer (Vargo and Lusch, 2004). Value created by entrepreneurs is perceived by others and is indicated by the exchange they are prepared to make in return for it. This is how the value created or realised by entrepreneurs is different from that created by artists for example in more purely creative practices. The Crazy Quilt Principle of Sarasvathy's Effectual Reasoning process (2008) is also relevant here as self-selecting partnerships are created because of perceived value on the part of the stakeholder.
Examples of students "getting it"	Seeking to create opportunities to interact with potential ~~customers~~ stakeholders to seek opinion, validation, feedback, ideas and build partnership relationships. Mindful that value is only created when stakeholders validate it. Seeing beyond data to insight – knowing what stakeholders want before the stakeholder can articulate it themselves. Being aware of their own assumptions regarding others and actively seeking to test them.
Examples of students "not quite getting it"	Working in isolation from the target beneficiary because "they won't understand." Being reluctant to share ideas or test them out for fear of rejection or imitation.

	Rejecting feedback that is in opposition to their personal viewpoint without seeking to understand or nuance that feedback.

Threshold Concept #4	Iterative Experimentation
In Practice	Iterative experimentation is a way of understanding the role of trial and error in establishing what provides value to the stakeholder. Embracing small failures as a means of maximising opportunities to learn from mistakes as well as success. Like the process of scientific experimentation where an experiment generates data, iterative experimentation in this context is less emotive and outcomes are not deemed necessarily to be "successes" or "failures". Just as any outcome of a well-designed experiment is useful to a scientist. Practitioners never risk what they are not prepared to lose, so they are prepared to lose less but perhaps more often. It involves having a flexible and adaptable approach – practitioners are quick to change direction when feedback indicates that is what is needed.
In Theory	Many established entrepreneurial methods and practices embrace iterative development (Ries, 2011: Lean Start-up, IDEO: Design Thinking, and Takeuchi & Nonaka, 1986; Agile for example) and highlight the value of 'fast failure' as a means of learning through small iterative experiments. This is also apparent in Sarasvathy's (2008) Effectual Reasoning principles of Affordable Loss, using small, affordable experiments in which any 'loss' in fact creates value through what is learnt, and Make Lemonade, in which feedback is utilised to find new routes forward.
Examples of students "getting it"	Constantly looking to put things into practice and try things out, well before they are "ready". Seeing all outcomes (positive and negative) as useful. Adopting a reflective and reflexive approach, with well-developed self-awareness, willing to review actions and actively seek feedback from others. Not getting disheartened when plans do not work out. Quickly appreciating the need to pivot their approach, always thinking "What next? What next? What next?" Learning easily from experience, does not make the same mistake twice. Loves learning, are aware of what and when they are learning. Embarks on new experiences sometimes purely to learn from them.

Examples of students "not quite getting it"	Planning one big bang launch, ploughing lots of personal resource into something before testing it out.
	Persisting with a complex plan that is evidently not working.
	Trying, failing, and giving up.
	Repeating the same mistake, being "deaf" to feedback.
	Demonstrating a lack of self-awareness and reluctance to reflect or take on feedback.
	Being disinterested, lacking curiosity

Threshold Concept #5	Recognises Their Agency
In Practice	Practitioners recognise that they always have some agency to create value, or that it is at least beneficial to assume that they do and should take ownership of their actions.
	Practitioners know that their intention must be translated into action to create value, but that can be small steps towards a distant goal – a journey of a thousand miles begins with a single step.
In Theory	This relates to the concept of self-efficacy which determines the beliefs a person holds regarding their power to affect situations, and whether a person sees barriers and threats or pathways and opportunities (Bandura, 2010).
	It also relates to the concept of human agency (Bandura, 2006) which is centred on intentionality, forethought, self-reactiveness and self-reflectiveness and can be called "entrepreneurial agency" in this context.
	Systems Thinking approaches help see the complex processes by which acting on one part of a system might enable changes and impacts elsewhere in a system. By carefully selecting and applying our leverage we can always effect some change.
	Sarasvathy's Pilot-in-the-Plane Principle (2008), whereby by focusing on what is within their control, rather than what is beyond it, entrepreneurs choose to exert control over their situation is a manifestation of this concept of recognising individual agency.
Examples of students "getting it"	Being willing to think big but act small.
	Not being deterred by the size or scale of the task, willing to make small steps and gather resource and information to start the work.
	Asking for challenge and feedback.

Examples of students "not quite getting it"	Giving up in the face of big or complex challenges.
	Seeking excuses such as the scale of the challenge or the lack of resource available for not attempting or completing the challenges. Complaining that others had easier tasks or better or more resource.
	Needing constant reassurance, asking for direction, and needing lots of help with decision making, unwilling to shoulder responsibility for actions themselves but seeking to spread ownership in anticipation of sharing blame should outcomes be negative.

Threshold Concept #6	Taking Action
In Practice	Practitioners know that intention must be translated into action for value to be created. Intention PLUS will is all-important to create or exploit an opportunity for value.
	Practitioners know that actions need not be big,
	Practitioners are good decision makers, understanding and evaluating what is necessary to create value, what is optional, and what is likely unnecessary to establish value.
	Practitioners understand that inaction is an action that conserves resource. They appreciate that sometimes the right thing to do is to say no or to do nothing.
In Theory	In the Cynefin Framework (Snowden, 1999) a series of Systems Thinking approaches to different complexities of problems suggest that in highly complex and chaotic situations the most effective way to make sense of what is going on is to act. By acting we create feedback, we acquire data, and we can start to probe and test further to understand what is happening and what can be done to change it.
	In Effectual Reasoning (Sarasvathy, 2008) you need to act to create new effects to build from; by mobilising what you have (Bird in Hand, Crazy Quilt, Pilot in the Plane) you can create experiments (Affordable Loss) and learn something that allows forward movement (Make Lemonade). Speculation does not produce new insight, only action (which includes research) helps create insight and new value. In this context, choosing not to act on processes that are already in motion constitutes an action in that it still leads to new outcomes and insights.
	Intention based theories including the theory of planned behaviour (Ajzen, 1991) are not enough to determine entrepreneurial action.
Examples of students "getting it"	Being willing to take small steps towards distant goals.
	Being willing to try things as a means to discover things.

	Engaging in research, validation, prototyping with the intention of trying to discover something.
	Using systems approaches and identifying even small steps to unpick big and complex challenges.
	Knowing when to say no to offers and options that are evaluated as having little value or as being a distraction to their current projects. Having the courage to say no and to choose not to take action when appropriate.
Examples of students "not quite getting it"	Getting stuck in a process of generating but never testing ideas.
	Being reluctant to research, to validate or invalidate their ideas, resisting prototyping.
	Deferring activity or creating excuses for why activity has not or cannot take place.
	Taking on too much, becoming distracted and losing focus.

Threshold Concept #7	Knowledge is Always Partial and Often Ambiguous
In Practice	Practitioners accept that they do not, and likely cannot, have all the data they would like to make decisions and they are always working with an incomplete picture.
	Practitioners understand that you can still act even if the situation is not perfect, ideal, or even favourable – but that the process of taking action is likely to lead to new situations, learnings, and ultimately opportunities.
	Practitioners are likely to regard ambiguity and the risk of failure as a barrier to others and thus an opportunity to themselves to break new ground.
	Practitioners know that knowledge is always partial and often ambiguous and can act despite this.
In Theory	We cannot know everything, knowledge is effectively infinite, and we do not need to know everything to make decisions about it.
	Multiple realities are possible in any case, and elements of these realities may be shared among many individuals, so constructions are therefore only more or less informed and sophisticated rather than more or less "true" or complete in any kind of absolute sense (Guba & Lincoln, 1994). Knowledge is also subjective and a matter of interpretation and perception. Value is similarly subjective and hard to assess from individual to individual and market to market.

| | Sarasvathy's (2008) Pilot-in-the-Plane Principle is relevant here as an entrepreneurial response to not being able to control every situational variable but focusing on what can be controlled.

Unpredictable outcomes and insights are part and parcel of acting, any action or inaction involves a degree of risk and a degree of opportunity. The Lean Start-up method (Ries, 2011) highlights learning quickly as a critical factor in successful start-up; the point is to generate information quickly and often so it can be learnt from, and ideally before others do in a manner that creates some competitive advantage in the market.

Disruption of existing systems and perceptions enables new value to emerge (Schumpeter, 1934)) which an entrepreneur might then harness for a particular purpose. |
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| Examples of students "getting it" | Constantly looking to put things into practice and try things out, well before they are "ready". Seeing all outcomes (positive and negative) as useful.

Does not get disheartened when plans do not work out, seeks to 'learn' rather than to 'know'.

Happy to work with what they have and focusing on that, rather than what they are missing. |
| Examples of students "not quite getting it" | Seeking perfect circumstances/knowledge before committing to action.

Creating excuses of imperfect circumstances as a means to defer action or explain inaction.

Being reluctant to accept responsibility for failing to engage in activity that might lead to ideas being invalidated. |