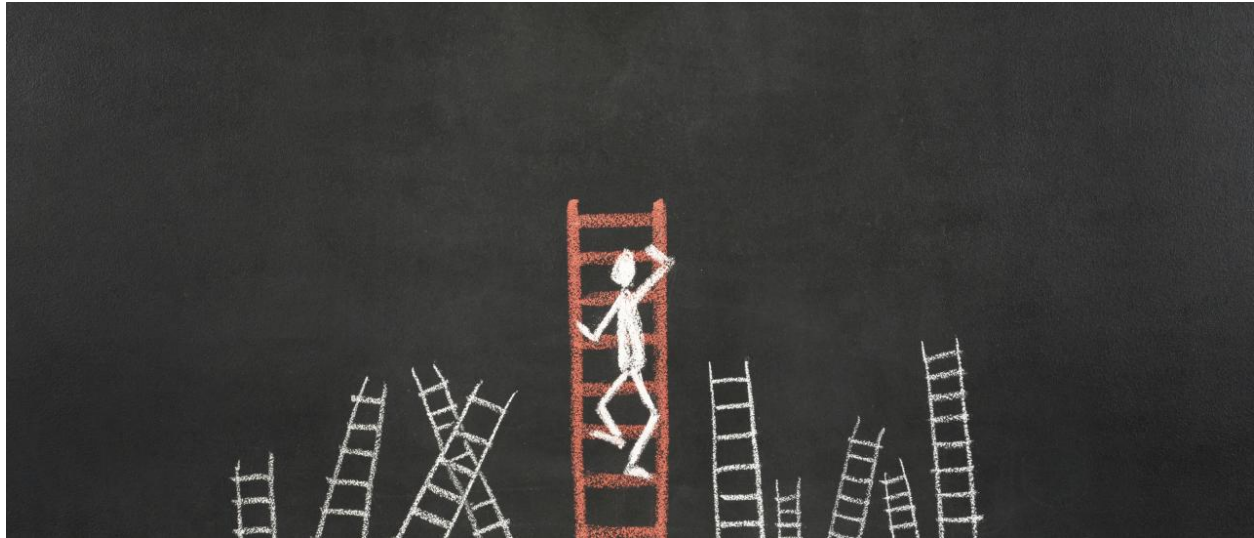

How Important Is Education to Entrepreneurial Development?



By Michelle Rogan , INSEAD Assistant Professor of Entrepreneurship and Family Enterprise and Florian Schloderer , INSEAD Lecturer

Business students can be taught how to negotiate with lawyers, pitch to investors and create a business plan, but can you teach someone to think like an entrepreneur?

INSEAD will be launching a new summer programme for high school students in August this year providing teenagers with basic knowledge and experience to increase their awareness of the business world. Alongside courses on strategy, decision-making and organisational behaviour, students will attend classes on entrepreneurship designed to nurture a new generation of entrepreneurial thinkers.

For decades there has been debate on whether academics are the right people to teach entrepreneurship and if, in fact, it is something which can be learned. Some argue the only way these skills can be taught is by entrepreneurs themselves dissecting their successes and failures and sharing real-world, practical experience. Others say entrepreneurship cannot be taught; that successful entrepreneurs have distinct traits which are innate, and that certain people are hard-wired to see opportunities and

pursue them through new and innovative means.

Of course when thinking about entrepreneurship education there is the practical side, providing tools such as market research, business planning and negotiation techniques. However, when offering a comprehensive entrepreneurship programme you have to go beyond this and consider how to teach entrepreneurial reasoning and behaviour.

Thinking like an entrepreneur

It's no secret that entrepreneurs "think differently"; they ask provocative questions and approach business in a much more creative way. In her attempts to understand the cognitive processes of entrepreneurs, Saras Sarasvathy found that successful entrepreneurs actually used a different reasoning approach when making decisions about their business. In her research [What Makes Entrepreneurs Entrepreneurial?](#) Sarasvathy notes that "Entrepreneurs are entrepreneurial as differentiated from managerial or strategic, because they think effectually: they believe in a yet-to-be-made future that can substantially be shaped by human action."

Effectual rationality, according to Sarasvathy, is the inverse of causal. Traditional education systems around the world are very good at teaching students to think causally, to set a pre-determined goal and then acquire the means and resources to find the most efficient way of achieving it. People who use effectual reasoning, on the other hand, start with a given set of means and allow goals to emerge and change over time. Google, for instance, didn't begin as a brilliant vision or ingenious idea, but as a project to improve library searches. It sparked a series of small discoveries that eventually unlocked a revolutionary business model.

Sarasvathy explains this well when she says "Causal reasoning is based on the logic, *'To the extent that we can predict the future, we can control it.'* This is why both academics and practitioners in business today spend enormous amounts of brainpower and resources on developing predictive models. Effectual reasoning, however, is based on the logic, *'To the extent that we can control the future, we do not need to predict it.'*"

In short, she likens causal thinkers to great generals seeking to conquer fertile lands, while effectual thinkers are explorers setting out on voyages into uncharted waters.

Using one type of thinking is not preclusive of the other. In fact, most successful entrepreneurs begin with effectual thinking when developing an idea and move towards causal reasoning towards the latter part of a project's development. For the majority of adults however, it is very difficult to adopt this more creative, effectual approach. In fact, there are strong forces pulling us in the opposite direction, towards more linear thinking.

Teaching entrepreneurship

In 1968, George Land conducted **research** to study the creative development and capacity for divergent thinking in children, using a similar test to the one devised to identify innovative engineers and scientists for NASA. He tested 1,600 children intermittently at ages five, ten and fifteen years and was shocked to find that, in fact, divergent thinking in children did not develop, and actually regressed. While the five-year-olds scored an average of 98 percent, the 10-year-olds scored 30 percent and 15-year-olds, 12 percent. When the same test was given to 280,000 adults the result was just two percent.

A large part of this pull towards to causal thinking comes down to our schooling. Many traditional education systems have been designed to train us to follow instructions. There is a reliance on standards, a prescribed curriculum. Schools - and this is just as true for many organisations - tend to reward people for being able to perform consistently and reliably, for being able to "colour within the lines".

Creativity skills are learned, not from sitting in a classroom, but by experiencing and applying creative thinking processes. **According to English philosopher Ken Robinson** we learn to be innovative and entrepreneurial by exploring, questioning assumptions, using imagination and synthesising information. Robinson asserts that traditional education's emphasis on conformity, compliance and a linear path stifles this.

It's not surprising then that a significant number of successful and innovative entrepreneurs, including Google's founders Larry Page and Sergei Brin, Amazon's Jeff Bezos, videogame pioneer Will Wright, and Wikipedia founder Jimmy Wales, began their education in the Montessori school system where they learned to follow their curiosity and think differently. In their book, **The Innovator's DNA**, Hal Gregersen, Executive Director of the MIT Leadership Centre, and Jeff Dyer, Professor of Strategy at BYU noted that "The most innovative entrepreneurs were very lucky to have been raised in an

atmosphere where inquisitiveness was encouraged. We were struck by the stories they told about being sustained by people who cared about experimentation and exploration.”

A different mindset

Part of the motivation for teaching entrepreneurial-thinking to high school students is to help them understand entrepreneurial reasoning and behaviour and expose them, even at a small level, to the idea that there’s actually a different way to think, a different way to behave, than what is typically reinforced in their school system. We want them to appreciate this difference and in some cases adopt divergent thought patterns into their own behaviour.

Do we expect all 45 students attending the [Summer@INSEAD](#) programme to be entrepreneurs? No. Do we expect that maybe one out of the 35 will? Yes - and we hope the programme will increase this number. Finally, do we expect 17 of the remaining 34 will end up being managers of companies working with entrepreneurs? Absolutely. In these cases it’s equally important they appreciate the different ways in which ideas can be developed and the effectual process of the entrepreneur’s mind.

Validating divergent thinking

This brings us back to the question can you really teach entrepreneurship? There seem to be promising initiatives under way to develop entrepreneurial mindsets and behaviours, but how they are best taught is still under debate. If someone has tendencies in this direction, by exposing them early on to the idea that there is more than one way to think, we can validate their reasoning processes and give them permission to pursue their drive, increasing the likelihood they will move ahead and take up the challenges of entrepreneurship.

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