

The Case for Teaching Entrepreneurship Like We Teach Science

Saras Sarasvathy (University of Virginia)
Kristian Nielsen (Aalborg University)

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A study confirms the value of teaching entrepreneurship in secondary school, and argues that entrepreneurship should be taught widely, not reserved for future business majors.

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What is the probability that anyone starts a venture with real revenues and even employment within three years of graduating high school? And how could we increase that probability through entrepreneurship education in secondary schools? A recent nationwide study in Denmark set out to explore these questions.

Entrepreneurship education is a relatively recent phenomenon, with most courses beginning to be taught in universities toward the end of the 20th century. Serious academic research kicked in even later; early doctoral studies mostly began only in the 21st century. Even today, most entrepreneurship education programs are offered only at universities, with one or two courses in high school or earlier -- and only in a very few schools in most countries.

However, in 2005 Denmark initiated a nationwide reform requiring entrepreneurship to be taught at the secondary school level. The first cohort impacted by the reform graduated in 2008. That means, for the first time ever, we could examine the impact of teaching

entrepreneurship to younger students on a nationwide scale.

We wanted to know more about this topic because scholars have argued that entrepreneurship is as big a force for societal change as science. In other words, entrepreneurship education can enable human progress on a scale equivalent to that ushered in by the scientific revolution in the 17th and 18th centuries. Yet, while we teach science to everyone starting in primary school and even earlier, we teach entrepreneurship only much later in life, and even then only to potential entrepreneurs. Our nationwide study sought to determine the extent to which the delivery of broad-based entrepreneurship education to young people might yield measurable impacts after graduating high school.

Many entrepreneurship scholars have strenuously argued for teaching entrepreneurship to all -- the way we teach science to all -- at all levels of education. On the other hand, some economists and others, such as Nobel laureate Kenneth Arrow, have argued against the usefulness of entrepreneurship education, advocating instead for nothing more than incentives to increase startup rates, such as seed capital funding.

We set out to test these competing hypotheses. We suspected that teaching entrepreneurship earlier, such as in secondary schools, would make a positive difference on a variety of fronts, including increasing startup rates in the younger population just graduating high school.

What We Studied

We used a unique comprehensive nationwide dataset from Denmark that includes all schools before and after the 2005 reforms. Following their enactment, two out of three different types of schools in the upper secondary school system increased curricula in business,



innovation, and entrepreneurship. That means we could not only compare the effects before and after the reforms; we could also compare the effects between schools that introduced entrepreneurship-related courses and schools that did not.

For measuring actual startups created by secondary school students within 3 years of graduation, we used data from Statistics Denmark, which goes beyond the mere act of starting a venture. Instead, the startup had to meet a minimum requirement for economic activity in terms of employees and/or industry specific sales levels. For those who did not start ventures within that period, we measured academic majors and early career choices that were likely to positively impact their starting ventures in the longer run after university. We also examined whether these measures were more positive for students with entrepreneurial parents, such as those coming from parents who own family businesses.

What We Found

Given that only about .03% of the population, even in countries like the US, will start a venture immediately after high school, it was surprising to see an increase of about 40% in actual ventures started by secondary school students within 3 years of graduation from high school. By actual ventures, we mean ventures with real revenues and employment. That made our measures both rigorous and conservative. In addition to an increase in the number of ventures started, we observed increases in sales in the founding year of the ventures started after the reform, ranging from 39% to 45% in the three types of schools, with business school students doing the most.

Ventures started by students spanned a variety of products and industries -- from a clothing webshop for girls to a fast-charging hybrid powerbank. For example, Cille Bodenhoff Munk Telling, Kinneret Rebekka Lilly Sarusie, Jeppe Kejlberg-Jansson, and Mads Høy Lindgaard, from Learnmark Gymnasium in Horsens, cofounded *Plash*, a company that developed an interactive hand-washing system designed to make it more fun for kindergarten children to wash their hands. While a student at Køge Handelsgymnasium, Tobias Thomas started *TT-Film*, a company that began with video and photo coverage of student parties and youth events, but later developed into a broader business with more professional client assignments. Niklas Laugesen at Rungsted Gymnasium *NL Knowledge* built websites and coordinated freelancers around the world, making it

an unusually international business created by a high school student.

An unsurprising, yet important validation of our findings was the fact that all the positive effects were even more pronounced in the population of students with entrepreneurial parents (about three times larger than for those without). This is likely a result of the fact that entrepreneurial parents can serve as a source of role-modeling and advice, thereby offering further support to their children's entrepreneurial behaviors.

Takeaways

We drew several conclusions from these findings. First, founders and owners can rid themselves of the myth that the only way to build more successful ventures is to strive for funding and then learn everything through trial and error. Furthermore, they may want to hire people who have had some exposure to entrepreneurship and related curricula. Finally, they may want to engage with secondary schools to develop and teach content related to entrepreneurship, whether directly as teachers or through offering internships, after-school programs, and other opportunities.

Second, potential founders and aspirational entrepreneurs can learn that they need not wait for some ideal point in their life to start a venture. They can do it right out of high school, or maybe even earlier. They should also strive to learn from entrepreneurship education programs, both local and online, seek out educational ventures that teach entrepreneurship to all.

Third, policymakers need to invest in content development as well as teacher training to start building comprehensive entrepreneurship education programs in places where they couldn't be found before. This includes programs for every level of educational institutions and for target audiences such as at-risk youth, homemakers rejoining the workforce, and -- perhaps most important of all -- workers losing jobs due to new technologies such as AI. With regard to this last point: currently, policy makers are almost exclusively focused on job retraining programs. Adding entrepreneurship programs into that focus will be crucial to build a more robust economy as well as resilient communities capable of tackling and overcoming several different sources of uncertainty.

A New Way of Thinking

Today many businesses and founders, along with

educators and policymakers, mistakenly assume that money and technology are the only keys to startups and their success. They would find it surprising to learn that teaching young people *how to use* readily available resources, rather than seeking resources controlled by others, is equally, if not more relevant to building and nourishing enduring ventures.

Moreover, an ecosystem of people educated to at least at a minimal level in entrepreneurship will provide a robust system of support and a fertile source of human capital, both for growing their own ventures as well as for a much larger variety of innovative partnership opportunities for organizations of every kind in society.

Explore the Research

[Nationwide entrepreneurship content in secondary schools: Impact on entrepreneurial careers.](https://sms.onlinelibrary.wiley.com/doi/abs/10.1002/sej.1551)
(<https://sms.onlinelibrary.wiley.com/doi/abs/10.1002/sej.1551>) *Strategic Entrepreneurship Journal* July 2025

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The picture in this link shows the impact of science and science education over the past 200+ years:
<https://ourworldindata.org/technology-long-run>

Dr. William Sharp, the first science teacher in a public school in 1849:
<https://www.hahnemannhouse.org/william-sharp-1805-1896/>

Series of 6 books that teach entrepreneurship to young children:
https://www.amazon.com/dp/B09YKD6CRX?binding=hardcover&ref=dbs_dp_rwt_sb_pc_thcv

A recent report on entrepreneurship education in K12 schools in the US:
<https://www.kauffman.org/currents/entrepreneurship-education-increasing-in-american-schools/>