The Future of Entrepreneurship Education and Training: Some Propositions

Joern H. Block, Jantje Halberstadt, Nils Högsdal, Andreas Kuckertz, and Helle Neergaard

Abstract The education of future entrepreneurs shapes how we will live in the future. Entrepreneurship education is thus of utmost importance. This paper formulates several propositions and critical insights that we deem especially important for the current state of entrepreneurship education and its future development. These propositions concern the goals and target groups of entrepreneurship education as well as its contents, design, and educator role.

Keywords Entrepreneurship education · Entrepreneurship tools · Entrepreneurship training · Propositions

1 Introduction

The education of future entrepreneurs shapes how we will live in the future. Entrepreneurship education is thus of utmost importance. Entrepreneurship educators and researchers constantly renew tools, interventions, and training programs for

J. H. Block (✉)
Trier University, Trier, Germany
e-mail: block@uni-trier.de

J. Halberstadt
Vechta University, Vechta, Germany
e-mail: jantje.halberstadt@uni-vechta.de

N. Högsdal
Stuttgart Media University, Stuttgart, Germany
e-mail: hoegsdal@hdm-stuttgart.de

A. Kuckertz
University of Hohenheim, Stuttgart, Germany
e-mail: andreas.kuckertz@uni-hohenheim.de

H. Neergaard
Aarhus University, Aarhus, Denmark
e-mail: helle.neergaard@mgmt.au.dk

entrepreneurship education and adapt them to the specific needs of entrepreneurs and developments in the entrepreneurship ecosystem.

Generally, entrepreneurship education is on a success trajectory (Kuckertz, 2021), and more and more stakeholders and learners have the opportunity to benefit from it (Kuckertz, 2013). Moreover, the ongoing digitalization and the situation of a (post-)pandemic world pose new challenges for entrepreneurship educators and facilitators (Liguori & Winkler, 2020) and create momentum for innovations in (digital) entrepreneurship teaching, training, and tools.

It is against this background that we have put together this edited volume. As entrepreneurship and entrepreneurship education are context-specific (Welter, 2011; Thomassen et al., 2020) and their conduct and impact vary a lot (Walter & Block, 2016), we made sure to include submissions from multiple institutional and cultural backgrounds. The edited volume collects these new ideas and makes them available to the community of entrepreneurship educators, facilitators, and scholars. The volume is open access, for which we are grateful to *Förderkreis Gründungs-Forschung e.V. (FGF)*, the largest academic association for entrepreneurship, innovation, and small-and-medium-sized enterprises in German-speaking countries. Collecting chapters for this volume and managing the review process has been an exciting and fruitful editorial journey, and we wish to thank all authors, reviewers, and, most importantly, Carlos Krause as managing editor for their hard work. We devote the book to Felix Meyerhoff, who passed away during his doctoral studies on entrepreneurship education. His premature and sad death was the trigger that led to the call for papers and gestation of this edited book around the future of entrepreneurship education.

Rather than summarizing all individual contributions here, we use the opportunity to reflect on our (subjective) learnings from putting together the volume. This experience has led us to formulate several propositions and critical insights that we deem especially important for the current state of entrepreneurship education and its future development. These propositions concern the goals and target groups of entrepreneurship education as well as its contents, design, and educator role.

2   The Goals and Target Groups of Entrepreneurship Education

Proposition 1: Entrepreneurship students not starting businesses after completing their education is also a good outcome of entrepreneurship education. Research shows that entrepreneurship education can sometimes reduce students' entrepreneurial intentions (Von Graevenitz et al., 2010). Students learn what it takes to become an entrepreneur and may question whether becoming an entrepreneur fits with their personal goals and life plans and whether it is the right occupational choice for them. As a result, they develop a more realistic picture of entrepreneurship and may decide against entrepreneurship, which is an entirely acceptable outcome. Like every other form of education, the goal of entrepreneurship education is to train students to become critical thinkers. If, as a result of this critical thinking, students

decide against entrepreneurship and choose a different career path, that is a good and desirable outcome as well. In turn, those students who, after a critical reflection induced by entrepreneurship education, start their own venture should be highly motivated and persistent in tackling the challenges associated with entrepreneurship, particularly in the early phases of venture gestation. Some students may also decide to start a business later in their life after having gained valuable work experience in established firms. Entrepreneurship education empowers such students to take responsibility in established organizations by acting as intrapreneurs.

Proposition 2: Entrepreneurship education is not only for business students—it's for everyone.

Today, entrepreneurship is related to more than business models and personal wealth creation. Entrepreneurs play an increasing role in societal well-being as it requires entrepreneurial thinking and acting to solve society's urgent problems. Therefore, entrepreneurship is increasingly connected to sustainability, for example, achieving the UN's Sustainability Development Goals (SDGs). We often see people stuck in discussions concerning today's issues. What is required, however, are individuals who develop solutions and get things done: entrepreneurs. They are needed not only in business and economic settings but also in research, politics, and civil society from all kinds of disciplines. There is the necessity and potential for entrepreneurial thinking and acting, characterized by innovation, solution, and action orientation from various stakeholders—from everyone at best. What does this mean for (future) entrepreneurship education? Thinking that entrepreneurship only pertains to business-related education is an outdated perspective. Entrepreneurship educators and researchers should focus more on integrating their knowledge into additional study programs and interdisciplinary settings. While entrepreneurship-related topics are nowadays well established in business administration programs, there is still a lot of potential in other areas such as engineering, social science, and liberal arts. Entrepreneurship educators need to be aware that a perceived focus on business generation as a goal of entrepreneurship education may limit access to other disciplines, while a broader focus on the term innovation may pave the way into other departments and faculties.

Proposition 3: Entrepreneurship education has goals beyond creating high-growth ventures.

Since the turn of the century, the number of entrepreneurship courses and programs has mushroomed (Barnard et al., 2018). In the early years, entrepreneurship courses focused on providing the individual with skills for new venture startups, but today we can find a much broader range of courses focused on, e.g., innovation, design thinking, and social and environmental concerns. Not only has entrepreneurship education become much more multidisciplinary (Neergaard et al., 2020), but it has also started to focus on developing social competence, fostering employability, and providing strategies for lifelong learning (Neck & Corbett, 2018). Thus, today entrepreneurship education is much more than just a "factory" for creating high-growth new ventures.

Proposition 4: Entrepreneurship education should start early and never stop.

Studies show that the foundation for an entrepreneurial attitude can be built in early childhood (Krieger et al., 2022a, 2022b). Therefore, it needs increasing interest in

didactical approaches, methods, and tools that can be used in entrepreneurship education at schools and even in preschool and kindergarten that transcend student company concepts (Mauer et al., 2017). In addition, there is no reason to stop entrepreneurship education after university studies are completed. Along with arguments for life-long learning, there is a need to develop, broaden, and strengthen the competencies that achieve entrepreneurial spirit and action at all ages and positions. This is why we call for more attention to entrepreneurship education offerings as continuing training that can also be designed to target professional development within existing companies and other organizations, capturing it as intrapreneurship education.

Proposition 5: Entrepreneurship education should celebrate diversity.
Entrepreneurship education should celebrate diversity, addressing different stakeholder groups with various approaches. One of the challenges receiving increasing attention is how to address women in entrepreneurship education appropriately. We still see an insufficient number of women entrepreneurs, which seems to be driven by differences in attitudes toward entrepreneurship (Steinmetz et al., 2021) and differences in perceptions of entrepreneurial skills (Abbasianchavari & Block, 2022). Research further suggests that women are, to a lesser degree, motivated by potential financial success than their male counterparts (Carter et al., 2003). At the same time, women are more motivated than their male counterparts when it comes to solving a problem and a considerable minority sees entrepreneurship as a way to engage for society (Schneider et al., 2021). Entrepreneurship education could, on the one hand, specifically focus on women and their (probably) different needs. On the other hand, approaches focusing specifically on women could lead to the unintended effects of positioning women as needy or unentrepreneurial and even falsely seeing women as one homogeneous group. However, instead of developing entrepreneurship education approaches tailored to stereotypical expectations, a broader perspective needs to be applied, appreciating diversity and discussing the effects that different groups offer. Embracing the different motives and individual paths to entrepreneurship may open up further target groups beyond business administration students. The possibility to realize one's own idea resonates with almost 80% of all students, and more than 20% see entrepreneurship as a way to change the world (Schneider et al., 2021). This situation makes it even more important to focus on the diversity competencies of future entrepreneurs and entrepreneurship educators.

3   The Content and Design of Entrepreneurship Education

Proposition 6: Different target groups of entrepreneurship education require different skills and competencies.
Different target groups of entrepreneurship education require different sets of entrepreneurial competencies. As seen with EntreComp, the Entrepreneurship Competence Framework developed by the European Commission (Bacigalupo et al., 2016), entrepreneurial competencies consist of various skills constituting the building blocks of entrepreneurship in various combinations—with selected areas being

more relevant for certain entrepreneurial activities. Research and practice should also increasingly focus on combining entrepreneurship and sustainability competencies toward broader frameworks as a basis for modern integrative entrepreneurship education aimed at creating impact.

Proposition 7: Entrepreneurship educators should also teach about the destructive side of entrepreneurship.

Entrepreneurship creates economic value for society. This positive outcome stems particularly from innovative and fast-growing new ventures (Block et al., 2017). However, these ventures have the most considerable potential for destructive effects producing environmental harm, societal inequality, and other undesirable outcomes of entrepreneurial action (Kwon & Sorenson, 2021). Therefore, entrepreneurship educators should not only teach about the positive impact of entrepreneurship but also reflect on its harmful and destructive aspects (Bandera et al., 2021). The goal is to educate entrepreneurs who reflect on their behavior and what it means for the stakeholders and society of their venture. As a result, the outcome of entrepreneurship education would be better, more sustainable startups that help to solve the grand challenges our society faces today.

Proposition 8: Entrepreneurship education requires existential, experiential, and transformational learning approaches.

New venture creation educators also tend to draw on experiential and transformational learning. However, given the change in focus, we need to get beyond these learning models and start looking at what the students bring with them when they enter the classroom. We have to understand that not all students are born entrepreneurs and that an enterprising mindset needs to be taught in a completely different way. Students are often unaware of what it takes to become entrepreneurs and do not realize they possess many necessary characteristics and qualities. Thus, we need to start focusing on the existential dimension of entrepreneurship. In order to do so, we need to introduce existential learning as a precursor to experiential and transformational learning. Existential learning deals with how we as learners relate to the world and positions the learner as a free and responsible agent, able to determine their own development. It focuses on how past choices have influenced us and how we perceive the possibilities and opportunities we meet in life (Neergaard & Robinson, 2020). The existential approach to learning helps learners grow at their own pace and enhances and refines their existing knowledge base. It supports and extends individual agency through significant learning experiences and critical self-reflection.

Proposition 9: Entrepreneurship tools are important, but their effects depend on the students' experience, education, personal qualities, and the contextual environment.[1]

A great deal of entrepreneurship education teaches students how to use entrepreneurship tools to identify and exploit entrepreneurial opportunities and build

---

[1]This idea was developed together with Felix Meyerhoff, who passed away during his doctoral studies. His dissertation was build around the goal to test these ideas in a rigorous experimental setting.

permanently successful ventures. Such tools are, for example, the omnipresent lean startup or the value proposition design. These tools can guide the entrepreneurial process and lead to more structured thinking about entrepreneurial opportunities and challenges. The old saying "a fool with a tool is still a fool" holds true. Thus, it is not just the tool but the underlying process that students need to learn and practice. One must be cautious when using such tools as they may produce undesirable side effects and even constrain creative thinking when misapplied and in the wrong contextual environment. In addition, their effects may depend on the students' prior education and experience as well as their personality and even scientific rigor. A value proposition canvas can be just a number of formulated assumptions or the results of weeks for validating or falsifying the underlying hypotheses.

Proposition 10: Entrepreneurship education needs to be evidence-based, not driven by fads.
Being an entrepreneurship educator is an exciting profession—not only are we confronted with the latest ideas for changing the world by our students. Also, new tools and approaches appear every other day, and it is tempting to introduce them in the classroom immediately. Unfortunately, many of these tools and interventions are conceptualized without any objective evidence to ground them. This is a potentially dangerous pitfall—many of us are running the risk of confronting students with interventions whose effects are unclear at best but that feel somehow fancy, startup-like, and innovative. Research on entrepreneurship education has seen laudable attempts in recent years to create an evidence-based fundament for these tools and interventions. However, educators conceptualizing and revising their courses must be aware of this research to provide their students with the best possible input. This edited volume is hopefully a step in the right direction that will allow just doing that.

4 The Role of the Educator

The final proposition concerns the role of the entrepreneurship educator. Ultimately, it is the teacher who matters. Ineffective teachers achieve poor results. No fancy tool, (digital) script, or course design can replace a skillful, motivated, and competent entrepreneurship educator inspiring their students to learn about entrepreneurship as a career choice and developing the skills needed to solve today's grand challenges.

Proposition 11: Entrepreneurship educators and practitioners should be entrepreneurial themselves.
Entrepreneurship education researchers and practitioners should also think and act entrepreneurially and see the challenges of entrepreneurship education as opportunities to develop, implement, and test innovative teaching. Calling for such educators does not mean that entrepreneurship educators must start businesses themselves to act entrepreneurially. Nor does it say that any innovative idea deserves to be celebrated because it is new and fancy. However, to be a good teacher, entrepreneurial entrepreneurship educators should always question their goals, carefully consider the needs of their specific target group(s), and constantly develop

themselves. This requires to often go beyond classical teaching and focus more on the facilitation of learning processes. This demands the right kind of accompanying research to evaluate and develop the best didactic approaches, tools, and methods to achieve a vibrant and successful entrepreneurship education.

5 Conclusion

With these 11 propositions introducing the edited open access volume on "New Developments in Entrepreneurship Education, Training, and Tools," we hope to contribute to an entrepreneurship education that brings its students into the position to solve the grand challenges of our society proactively either as an entrepreneur, intrapreneur, or simply as an entrepreneurial-minded citizen. We wish the readers of the volume a great learning experience and hope to contribute to an effective and impactful future entrepreneurship education where and whenever it is needed.

References

Abbasianchavari, A., & Block, J. (2022). Perceptual factors explaining the gender gap in entrepreneurial propensity: A replication and extension. *Journal of Business Venturing Insights, 17*, e00303.

Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The entrepreneur-ship competence framework*. Publication Office of the European Union; EUR 27939 EN. https://doi.org/10.2791/593884

Bandera, C., Santos, S. C., & Liguori, E. W. (2021). The dark side of entrepreneurship education: A Delphi study on dangers and unintended consequences. *Entrepreneurship Education and Pedagogy, 4*(4), 609–636.

Barnard, A., Pittz, T., & Vanevenhoven, J. (2018). Entrepreneurship education in US community colleges: A review and analysis. *Journal of Small Business and Enterprise Development, 26*(5). https://doi.org/10.1108/JSBED-06-2018-0178

Block, J. H., Fisch, C. O., & Van Praag, M. (2017). The Schumpeterian entrepreneur: A review of the empirical evidence on the antecedents, behaviour and consequences of innovative entrepreneurship. *Industry and Innovation, 24*(1), 61–95.

Carter, N. M., Gartner, W. B., Shaver, K. G., & Gatewood, E. J. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing, 18*(1), 13–39.

Krieger, A., Block, J., Stuetzer, M., Obschonka, M., & Salmela-Aro, K. (2022a). Closing the gender gap in entrepreneurship: The importance of skill variety. *PLoS One, 17*(7), e0270976.

Krieger, A., Stuetzer, M., Obschonka, M., & Salmela-Aro, K. (2022b). The growth of entrepreneurial human capital: Origins and development of skill variety. *Small Business Economics, 59*(2), 645–664.

Kuckertz, A. (2013). Entrepreneurship education—Status quo and prospective developments. *Journal of Entrepreneurship Education, 16*, 59–71.

Kuckertz, A. (2021). Why we think we teach entrepreneurship-and why we should really teach it. *Journal of Entrepreneurship Education, 24*(3), 1–7.

Kwon, D., & Sorenson, O. (2021). The silicon valley syndrome. *Entrepreneurship Theory and Practice*. https://doi.org/10.1177/10422587211050892

Liguori, E., & Winkler, C. (2020). From offline to online: Challenges and opportunities for entrepreneurship education following the COVID-19 pandemic. *Entrepreneurship Education and Pedagogy, 3*(4), 346–351.

Mauer, R., Neergaard, H., & Linstad, A. K. (2017). Self-efficacy: Conditioning the entrepreneurial mindset. In *Revisiting the entrepreneurial mind* (pp. 293–317). Springer.

Neck, H. M., & Corbett, A. C. (2018). The scholarship of teaching and learning entrepreneurship. *Entrepreneurship Education and Pedagogy, 1*(1), 8–41.

Neergaard, H., & Robinson, S. (2020, May 5–7). *Entrepreneurship as existential learning: The missing link in effectual learning processes*. In Paper presented at the ECSB 3E Conference, online. Conference best paper award.

Neergaard, H., Gartner, W. B., Hytti, U., Politis, D., & Rae, D. (2020). Filling in the blanks: 'Black boxes' in enterprise/entrepreneurship education. *International Journal of Entrepreneurial Behavior and Research, 26*(5), 817–828.

Schneider, H., Högsdal, N., & Mazhar, L. (2021). Addressing the student perspective in entrepreneurship education: Insights on student's attitudes towards entrepreneurship and recommendations for educational design. *Journal of Entrepreneurship Education, 24*(S3).

Steinmetz, H., Isidor, R., & Bauer, C. (2021). Gender differences in the intention to start a business: An updated and extended meta-analysis. *Zeitschrift für Psychologie, 229*(1), 70.

Thomassen, M. L., Middleton, K. W., Ramsgaard, M. B., Neergaard, H., & Warren, L. (2020). Conceptualizing context in entrepreneurship education: A literature review. *International Journal of Entrepreneurial Behavior and Research, 26*(5), 863–886.

Von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior and Organization, 76*(1), 90–112.

Walter, S. G., & Block, J. H. (2016). Outcomes of entrepreneurship education: An institutional perspective. *Journal of Business Venturing, 31*(2), 216–233.

Welter, F. (2011). Contextualizing entrepreneurship—Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice, 35*(1), 165–184.

Joern Block is a professor of management at the University of Trier. His research focuses on entrepreneurship, sustainability, and innovation management in small and large firms. He is currently the head of the entrepreneurship and innovation management division of the Verband der Hochschullehrerinnen und Hochschullehrer für Betriebswirtschaft (VHB).

Jantje Halberstadt is a professor of Economics and Sustainability at the University of Vechta, where she is also the Dean of Studies at the Faculty of Education and Social Sciences. Her main research interests are in the area of entrepreneurship and management, particularly transformational sustainability entrepreneurship related to various fields, such as ICT, agriculture and food, sports, education, and gender studies.

Nils Högsdal is teaching Corporate Finance and Entrepreneurship at Hochschule der Medien Stuttgart (Stuttgart Media University). He is active in both the scientific discipline of entrepreneurship and the real startup community. He is an active entrepreneurship researcher and educator, inviting the community every year to the International Entrepreneurship Education Summit. In 2015, Nils was awarded with one of the statewide teaching awards by Baden-Württemberg. He also serves the university as "Prorektor Innovation," which best translates as the vice president for innovation.

Andreas Kuckertz is the head of the Entrepreneurship Research Group at the University of Hohenheim. For FGF e.V., the largest academic association in German-speaking countries focusing on entrepreneurship, innovation, and SMEs, he has been serving as the president since October 2018.

Helle Neergaard is a professor of entrepreneurship at the Department of Management, Aarhus University, Denmark. She is currently Editor-in-Chief of the International Journal of Gender and Entrepreneurship. She is a former president of ECSB and the 2018 European Entrepreneurship Educator Laureate. Her main research interests are gender and entrepreneurship education.