

USASBE

## Entrepreneurship Education and Pedagogy

### **CALL FOR PAPERS** **SPECIAL ISSUE ON**

### **Experimental Designs to Address Current Challenges in Entrepreneurship Education Research**

#### **Guest Editors<sup>1</sup>**

**Sílvia Costa**, University of Groningen (member of the ECSB Board)

**Susana C. Santos**, Rowan University (member of the USASBE Board)

**Mark T. Schenkel**, Belmont University (Past President of USASBE)

**Silke Tegtmeier**, University of Southern Denmark (Past President of ECSB)

**Ulla Hytti**, Turku School of Economics at University of Turku (President Elect of ECSB)

<sup>1</sup>*This is a joint initiative from the two organizations USASBE and ECSB*

Entrepreneurship is a noisy phenomenon as many factors play a role in understanding entrepreneurial activities. Hence, establishing causal relations is a difficult challenge. Experimental designs provide a powerful lens to determine causality (Colquitt, 2008) and have been labeled “the most rigorous of all research designs” (Trochim, 2001: 191). Thus, there is a growing interest in experimental research in the areas of entrepreneurship and small business, as a way to isolate certain variables and to understand their causal relations. Over the last decade, several calls for more experimental designs in entrepreneurship research have been made reflecting that the scholarly community recognizes that experiments can contribute to advancing the field (Williams et al., 2019).

One of the topics in entrepreneurship research in which the observation of a cause-effect relationship is crucial is entrepreneurship education and training. Scholars have for long dedicated efforts to understand the effects of entrepreneurship education on competence development, have reflected on the best practices for entrepreneurship education and carried out comparative studies to understand the impact of education in different groups of individuals (Fayolle, Gailly & Lassas-Clerc, 2006; Fayolle & Gailly, 2015). Therefore, applying experimental designs in testing the effects of entrepreneurship education programs and activities is urgent and pertinent. In this



special issue, we highlight the pertinence of using experimental methodologies to understand cause-effect relationships in the field of entrepreneurship education.

Despite the benefits of using experimental designs to establish causal relationships, the use of experimental designs as a methodology is still limited in entrepreneurship in general (Williams et al., 2019) and entrepreneurship education specifically. While entrepreneurship education has a central role in defining policy agendas to better support entrepreneurial activity and entrepreneurs, we still have a limited understanding of its effects on individuals (von Graevenits et al., 2010). Beyond investigating the effects of educational interventions in entrepreneurship, experiments can address some of the most pressing issues currently discussed in the entrepreneurship education field. For example, experiential learning is pointed out as a beacon in entrepreneurship education. However, understanding how specific knowledge derives from these experiential approaches is not fully understood (Hägg & Kurczewska, 2020). By isolating specific variables as predictors of certain outcomes, experimental designs can contribute to a better understanding of how experiences in the classroom result in aspects of knowledge (e.g., competencies, skills, intentions, attitudes, or perceptions).

While studies in entrepreneurship education stress the importance of participants' idiosyncrasies when designing educational interventions (e.g., Costa et al., 2018), prior research revealed inconclusive results pertaining to the effects of entrepreneurship education in students' competence development, indicating that a possible cause for this issue is assuming students to be homogenous (Shneor et al., 2020). Because randomization is a fundamental aspect of experimental designs, they allow researchers to assume that between groups, individuals are homogeneous. Alternatively, experiments can also compare groups of individuals with different characteristics, or in specific educational settings or disciplines (Kleine et al., 2019). In this way, experiments can address the issue related to sample homogeneity.

Finally, most studies on the effects of entrepreneurship education (including experiments) on individuals' entrepreneurial competencies development predominantly focus on the positive outcomes of educational interventions. However, scholars have been calling for more studies challenging the dominantly positive view on entrepreneurship education, calling for a need to "unsettle" the field (Berglund et al., 2020) and questioning the "dark side" of entrepreneurship education (Bandera et al., 2020). Because experiments are the best way to establish causality, they should be a preferred methodology to test such adverse effects of interventions.

In sum, using experiments to establish causal relationships in entrepreneurship education is important for three reasons. First, it allows isolating certain variables as predictors of certain outcomes. Second, it would move the field forward by going



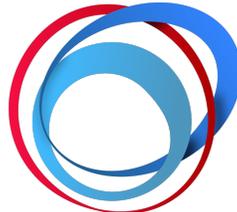
beyond the pre and post-test designs – which are currently predominant in the entrepreneurship education literature – by including more rigorous, full experimental designs using both experimental and control groups. Third, it enables looking at the effects of pedagogical interventions with different groups of individuals.

There are also some challenges in using experimental designs in entrepreneurship education research. While randomization of participants is key for designing experiments, this is not always possible in entrepreneurship education for ethical reasons. Therefore, researchers are often challenged to think about alternatives to test their educational interventions. For this reason, quasi-experiments are often a safe alternative to test cause-effect relationships in this field (Shadish et al., 2002). Additionally, certain educational interventions aim to bring students or potential entrepreneurs to the same level as experienced entrepreneurs in a given competence or skill (e.g., developing one's entrepreneurial intentions, entrepreneurial mindset, among others). In these cases, a multiple group analysis and comparison with the entrepreneur population is often necessary, but difficult to achieve due to sampling difficulties. In contrast, more recent types of educational interventions focus on simulations (e.g., Fox et al., 2018) and experiments would enable to understand more clearly the effects of such interventions and how close to reality they are. These examples of challenges create the need for a conversation and discussion about best practices and ethical considerations when using experiments in entrepreneurship education, which we would like to cover in this special issue as well.

In sum, this special issue aims to highlight how the use of experimental designs can support the entrepreneurship education research community to establish clear causal relationships when testing or assessing educational and pedagogical interventions in entrepreneurship education. In doing so, we address the potential benefits of using such designs as well as the challenges and discuss best practices to bring this methodology into the field.

For this special issue we welcome studies focusing on, but not limited to, the following topics:

- Studies using experimental designs to test the effects of a course, training program or other specific types of interventions on learning outcomes;
- Studies using quasi-experimental designs to test the effects of a course, training program or other specific types of interventions on specific learning outcomes;
- Studies using a comparison of different stimuli in educational activities and their effects on specific learning outcomes;



USASBE

- Studies using experiments or quasi experiments to assess the effects of interventions on tangible learning outcomes;
- Studies using experiments or quasi experiments to assess the effects of interventions on subjective learning outcomes;
- Manuscripts focusing on best practices, ethical challenges or practical issues in conducting experiments in entrepreneurship education;
- Manuscripts reviewing the state of the art in experiments as a methodology to test entrepreneurship education interventions;

Manuscripts will be expected to make important theoretical and practical contributions to entrepreneurship education using an experimental design as the methodology to illustrate such contributions.

Due to potential terminology confusion with other terms often used in entrepreneurship education literature, such as “experiential” or “experimental interventions”, we would like to highlight that this special issue is not necessarily about using experimental educational methods in the education. We focus on using experiments as a research method to test the effects of educational activities and interventions.

#### **Submission process:**

All submissions will be subject to the standard review process followed by EE&P. All manuscripts must be original, unpublished works that are not concurrently under review for publication elsewhere (N.B. Conference papers may only be submitted if the paper has been completely re-written and if appropriate written permissions have been obtained from any copyright holders of the original paper). All submissions should conform to the EE&P manuscript [submission guidelines](#) available at and be submitted via the **journal’s submission site: <https://mc.manuscriptcentral.com/eex>**

There will be a series of events tied to this Special Issue with the aim of supporting prospective authors working on their manuscripts towards submission. Participation in the events is optional for authors. During the events, the editorial team will provide feedback and guidance for prospective authors.

#### **Important Dates:**

- Early feedback at the “Conducting Experiments in Entrepreneurship Research – Second Paper Development Workshop for Early-Career Scholars”, organized by the University of Groningen, NL: March 2021 (optional)
- Meet the 3E community of entrepreneurship education researchers and get their feedback at the 3E Conference, May 2021, Trondheim, Norway (optional)



USASBE

- Online Paper Development Workshop “Meet the Guest-editors”: September 2021 (optional)
- Feedback from the guest-editors: RENT Conference Nov. 2021, Turku, Finland (optional)
- Feedback from the guest-editors: USASBE Conference, Jan. 2022, U.S. (optional)
- Submission site will open: February 1, 2022
- Manuscripts due by: March 31, 2022
- Notification to authors (1st round): May 31, 2022
- First revised manuscript due by: August 31, 2022
- Notification to authors (2nd round): October 31, 2022
- Final versions due by: December 31, 2022

For questions regarding the content of the special issue, please contact the guest editors:

Silvia F. Costa – [s.m.costa@rug.nl](mailto:s.m.costa@rug.nl)

Susana C. Santos – [santosscc@rowan.edu](mailto:santosscc@rowan.edu)

Mark T. Schenkel - [mark.schenkel@belmont.edu](mailto:mark.schenkel@belmont.edu)

Silke Tegtmeier - [tegtmeier@mci.sdu.dk](mailto:tegtmeier@mci.sdu.dk)

Ulla Hytti - [ullhyt@utu.fi](mailto:ullhyt@utu.fi)

## References

- Bandera, C., Santos, S. C., & Liguori, E. W. (2020). The Dark Side of Entrepreneurship Education: A Delphi Study on Dangers and Unintended Consequences. *Entrepreneurship Education and Pedagogy*, <https://doi.org/10.1177/2515127420944592>
- Berglund, K., Hytti, U., & Verduijn, K. (2020). Unsettling Entrepreneurship Education. *Entrepreneurship Education and Pedagogy*, 3(3), 208–213.
- Colquitt, J. A. (2008). Publishing laboratory research in *AMJ*: A question of when, not if. *Academy of Management Journal*, 51(4): 616-620.
- Costa, S. F., Santos, S. C., Wach, D., & Caetano, A. (2018). Recognizing Opportunities across Campus: The Effects of Cognitive Training and Entrepreneurial Passion on the Business Opportunity Prototype. *Journal of Small Business Management*, 56(1), 51–75.
- Fayolle, A., & Gailly, B. (2015). The Impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. *Journal of Small Business Management*, 53(1), 75–93.
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: A new methodology. *Journal of European Industrial Training*, 30(9), 701–720.



USASBE

- Fox, J., Pittaway, L., & Uzuegbunam, I. (2018). Simulations in Entrepreneurship Education: Serious Games and Learning Through Play. *Entrepreneurship Education and Pedagogy*, 1(1), 61–89.
- Hägg, G., & Kurczewska, A. (2020). Towards a Learning Philosophy Based on Experience in Entrepreneurship Education. *Entrepreneurship Education and Pedagogy*, 3(2), 129–153.
- Kleine, K., Giones, F., & Tegtmeier, S. (2019). The Learning Process in Technology Entrepreneurship Education—Insights from an Engineering Degree. *Journal of Small Business Management*, 57(S1), 94–110.
- Liguori, E., Winkler, C., Winkel, D., Marvel, M. R., Keels, J. K., van Gelderen, M., & Noyes, E. (2018). The Entrepreneurship Education Imperative: Introducing EE&P. *Entrepreneurship Education and Pedagogy*, 1(1), 5–7.
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Boston, MA: Houghton Mifflin.
- Shneor, R., Smith, J. B., Smith, C. G., & Michael Goedecke, J. F. (2020). The Differential Impact of Entrepreneurship Education on the Entrepreneurial Intentions of Segments of Students. *Entrepreneurship Education and Pedagogy*, <https://doi.org/10.1177/2515127420936240>
- Trochim, W. M. K. 2001. *The research methods knowledge base* (2<sup>nd</sup> ed.). Mason, OH: Atomic Dog/Thomson.
- von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior and Organization*, 76(1), 90–112.
- Williams, D. W., Wood, M. S., Mitchell, J. R., & Urbig, D. (2019). Applying experimental methods to advance entrepreneurship research: On the need for and publication of experiments. *Journal of Business Venturing*, 34(2), 215–223.