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TITLE	Rethinking and Renewing Educational Paradigms, Theories, and Pedagogies in Entrepreneurship Education
YEAR	2026
DOI	https://doi.org/10.1177/2515127426144308
VERSION	Final draft
CITATION	Fayolle, A., Loi, M., Suomi, K., Heljakka, K., & Linan, F. (2026). Rethinking and Renewing Educational Paradigms, Theories, and Pedagogies in Entrepreneurship Education. <i>Entrepreneurship Education and Pedagogy</i> ,

**Special Issue: Rethinking and Renewing Educational Paradigms, Theories, and Pedagogies in
Entrepreneurship Education - Editorial**

**Rethinking and Renewing Educational Paradigms, Theories, and Pedagogies in
Entrepreneurship Education**

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Acknowledgement: We, as the Guest Editors of the Special Issue, thank the Executive Editor of *Entrepreneurship Education and Pedagogy* journal for his help and support at all stages of the editorial process. We also warmly thank all of our colleagues who have accepted to make reviews of a great number of submitted papers.

Abstract

Studies highlight that Entrepreneurship Education (EE) is now a well-established research field, yet fundamental issues concerning its theoretical foundations and societal role remain highly debated. To substantiate this debate and strengthen theoretical and epistemological perspectives, the call for this special issue identified three complementary macro topics deserving of research attention: philosophical and theoretical issues, pedagogies and educational models, and critical perspectives. This introduction offers a comprehensive review of the EE literature that explicitly addresses philosophical concerns or introduces well-defined perspectives, identifying four partially overlapping temporal phases that reflect shifting analytical foci on EE conceptualization and philosophical engagement. The analysis shows that while pedagogical models and educational practices have been extensively explored, deeper philosophical inquiry and critical reflection on issues of inclusion, gender, and social responsibility have emerged more explicitly only in recent years. The papers included in our special issue, accordingly, tend to address important gaps underlined in both our call and literature review.

Keywords: Educational Paradigms, Entrepreneurship Education Theories, Pedagogies, Philosophical perspectives, Epistemology, Critical perspectives.

Introduction

Entrepreneurship education (EE) is expanding worldwide and responds to an important and growing social/societal demand (Katz, 2003; Kuratko, 2005; Fayolle, 2013). However, entrepreneurship is a diversified and complex phenomenon and likewise is EE at both research and practice levels.

Action and intervention have raced far ahead of theory, pedagogy and research (Rideout & Gray, 2013), which “*has come at a cost: we grew so fast we outpaced our own understanding of what to teach, how to teach it, and how entrepreneurial learning is best measured*” (Liguori et al., 2018).

Research remains fragmented, with very little focus on ontological and epistemological issues and a lack of theory-driven papers (Fayolle, 2013). Methodological rigor needs improvement, and research on EE is still marginalized in top journals due to lack of legitimacy and maturity (Fayolle et al., 2016).

The call for this special issue builds on a number of gaps and limitations in the literature that the guest editors have identified as requiring further research attention. Specifically, from an ontological point of view, EE is often seen as a ‘fabric’ of start-ups and successful entrepreneurs, although it should be more a ‘fabric’ of human-being individuals thinking, acting and making decisions in uncertain contexts (Sarasvathy & Venkataraman, 2011). Novice/nascent entrepreneurs deal with novelty, change, uncertainty and contingency, requiring a critical mindset and conscientiousness (Klapper & Fayolle, 2022).

With regards to pedagogies and educational practices in the field, the importance of ‘active’, ‘experiential’, ‘learning by doing’ approaches are widely acknowledged, research is needed on how humans learn in such pedagogical settings. Courses should be embedded in practice but developed based on research efforts and theory-driven (Fayolle, 2013). When reviewing the literature, we find a lack of details about the nature of educational interventions (more particularly in relation to educators’ profiles and educational pedagogies), the design of teaching models as well as how learning outcomes are best measured (Nabi et al., 2017). Further, when we think about EE, do we

speak about teaching ‘about’, ‘for’ or ‘through’ entrepreneurship, and how we balance these approaches (Lackeus, 2015).

Few studies examine educators’ backgrounds, profiles, beliefs and social identity and their impact on students’ learning outcomes (Burke & Reitzes, 1981). There is a gap between what we teach and what entrepreneurs do (Edelman et al., 2004), calling for problem-based learning and transferability of real-life knowledge to the classroom. In addition, we should remember the importance of informal learning/education in entrepreneurship and support future entrepreneurs to attain a flexible mindset through exercises that are exploratory, creative and playful in nature. Further, participating in entrepreneurship societies or actively attending and constructing large entrepreneurial events could be paid attention in research as well (Ilonen, 2020). Finally, sharing experiences, initiatives and research results on EE, building up research and practice communities, and developing PhD programs in EE would be useful and more than needed in an emergent field. In other words, there is a need to strengthen the social structure of EE (Landström et al., 2022).

These topics greatly have inspired the focus of this Special Issue, titled ‘*Rethinking and Renewing Educational Paradigms, Theories, and Pedagogies in Entrepreneurship Education,*’ which is now being published in *Entrepreneurship Education and Pedagogy*. Specifically, the call for papers for this special issue identified three interrelated macro topics—philosophical, conceptual, and theoretical issues; pedagogies and educational models; and critical perspectives and the blind side of EE requiring research attention. From our perspective, these topics articulate important challenges that are both complementary and jointly necessary for reflecting on how the field of EE can move forward. Indeed, there is a need to enhance our understanding of *why*, *what*, *how*, and *for whom* EE programs are developed and implemented by grounding this understanding in philosophical discussions, in order to free the field from false myths and unrealistic goals that portray EE as inherently transformational, often contributing to unsuccessful political agendas and unmet expectations among aspiring entrepreneurs (Loi et al., 2021). Within this context, a critical

perspective and continuous scholarly introspection (Fayolle, 2013; Fayolle et al., 2016) are essential, along with ethical reflection on the potential outcomes that can be achieved, both theoretically and practically, especially among university students.

Against this background, our overarching research questions were: *To what extent has the field meaningfully engaged with these macro topics to date? Moreover, which current ideas offer fresh insights into them?*

In this editorial, in the section “What we learn from existing studies,” we provide a temporal overview of studies that have explicitly addressed philosophical concerns or introduced well-defined perspectives, allowing us to distinguish the macro topics that have predominantly shaped research agendas from those that remain underexplored. In the section “What we learn from the Special Issue selected articles,” we also highlight how the contributions included in this special issue offer novel insights that advance reflection across the three macro topics.

What we learn from existing studies

Before presenting and discussing our findings, we provide the readers with our methodological approach in reviewing the literature.

Methodological approach

The literature included in this review was identified through a systematic search of the Web of Science (WoS) database, and we selected articles we deemed relevant to our reflections based on the guest editors’ insider perspective (Klapper, Upham, & Blundel, 2020). The search strategy was designed to capture scholarly contributions at the intersection of EE and philosophical, epistemological, or critical reflection, without any temporal restriction¹. The initial search returned 59 publications. To ensure the relevance and quality of the corpus, only documents classified as

¹Specifically, the following research query was used: *TS = (“entrepr educ”) AND (TS = (“epistemolog*”) OR TS = (“educational paradigm*”) OR TS = (“philosoph**”))**

Articles or *Early Access* were retained, and publications written in languages other than English were excluded. Book chapters and other non-journal document types were not considered.

Following this initial screening, a qualitative assessment of titles, abstracts, and—where necessary—full texts was conducted to evaluate the extent to which the articles substantively engaged with the three intersected terms. As a result of this qualitative filtering, 9 articles were excluded from the WoS initial selection because their engagement with epistemological, philosophical, or paradigmatic issues was peripheral rather than central. The final WoS corpus, therefore, consisted of 50 articles, which formed the basis of the analysis, and which is available upon request.

The selected articles were analyzed qualitatively, with attention to how studies addressed philosophical, pedagogical, and critical issues, as well as the assumptions they made to support their perspectives, the significant results, the suggestions, and the future research. The articles were subsequently organized into temporal phases by year of publication and dominant conceptual orientation, enabling an analysis of the evolution of key themes in the field. This methodological approach supports a structured yet interpretive reading of the literature, consistent with the aims of the special issue to reflect on philosophical shifts, pedagogical models, and critical perspectives in EE.

Findings

The temporal reading of the selected literature reveals that the field has progressed through four partially overlapping phases, each characterized by a predominant orientation and the specific assumptions it raises. From a content perspective, we have identified recurring concerns and motivations for adopting a philosophical lens, which allow us to highlight shifts and changes in the perspectives adopted over time. Interestingly, philosophical questions have arisen more frequently in recent years, alongside a growing interest in understanding how teaching can be grounded in theories that acknowledge entrepreneurship as a multidimensional phenomenon, including from a

critical perspective. Table 1 synthesizes the four phases according to their philosophical focus and representative contributions that we discuss further in the next paragraphs.

INSERT TABLE 1 HERE

Phase 1 (2005–2010): Instrumental framing of EE. The earliest contributions in the selected corpus of data are predominantly characterized by an Instrumental/Programmatic perspective, in which EE is framed as a structured educational intervention aimed at developing entrepreneurial skills within specific disciplinary or professional contexts, such as engineering (Stone et al., 2005), arts (Beckman, 2007), and pharmacy (Inegbenebor, 2007). Entrepreneurship is viewed as a tool that enables the transformation of static, traditional curricula into more dynamic ones, supporting the development of broader competences in problem-solving and adaptability to a changing world. This way of thinking has more recently extended EE into medicine as well (e.g., Wang et al., 2025). Philosophical reflection remains implicit, as assumptions about knowledge, learning, and pedagogy in general are inherited mainly from conventional higher education models rather than being critically examined for EE. This phase can be characterized as the “dream era of EE”, as EE is conceived as a means to enable students to address societal challenges, particularly the need to change mindsets to become more adaptable and employable. However, different and opposing perspectives on EE—one more closely related to venture creation and the other to the development of broader competences—are clearly recognized (Beckman, 2007), indicating an emerging complexity in the design of EE.

Phase 2 (2010–2015): Pedagogical and disciplinary problematization. A second phase becomes visible through the emergence of a pedagogical and disciplinary perspective. In contrast to the earlier focus on what is delivered, these contributions begin to interrogate how entrepreneurship is learned. Research focuses on experiential learning, reflection (Kirby & Ibrahim, 2011), and

learner engagement (Gordon, Hamilton, & Jack, 2012). The key difference from the previous phase lies in the explicit questioning of what constitutes an effective model of EE that can develop broader competences to innovate and instill an entrepreneurial mindset in students (e.g., Etzkowitz, Ranga, & Dzisah, 2012; Kirby & Ibrahim, 2011), and what should be done to improve the field further (e.g., Fayolle, 2013). EE is no longer treated simply as a curricular add-on on previous traditional curricula, but as a pedagogical challenge that needs to interact with professional past experiences (as in the case of business owners examined by Gordon et al., 2012) and professional identities (as in the case of rugby professionals, for example, as illustrated by Kenny, 2015). Philosophical reflection becomes more visible at the epistemological level. Particularly, in this phase, EE acquires its own identity as, de facto, a form of pedagogy (e.g., Neck and Green, 2011). This reflection deepens at the ontological and normative levels, particularly through Kyrö's (2015) articulation of entrepreneurship as a pedagogical model that challenges traditional assumptions about knowledge transmission, agency, and the purposes of higher education, indicating entrepreneurship as a form of pedagogy [...] "*that renews previous learning paradigms and furthers educational institutional practices*" (p. 615).

Phase 3 (2015–2020): Systemic and ecosystem-oriented reconceptualization. From the mid-2010s onwards, the literature increasingly adopts a Systemic/Ecosystem-oriented perspective, extending the analytical focus beyond individual programs and classroom practices to include partnerships with external stakeholders (e.g., Johannisson, 2016), the social component of learning (Lackéus, Lundqvist, & Middleton, 2016), and a broader audience that is recognized and served within the university system (O'Brien, Cooney, & Blenker, 2019). What differentiates this phase from the pedagogical perspective is an increased awareness of the need to question the philosophical foundations that inspire educational practice (e.g., Fayolle, Verzat, & Wapshott, 2016; Hägg & Kurczewska, 2016; Refai & Higgins, 2017), with an explicit intent to reconcile, through a dualism lens, for instance, the different perspectives of EE as a venture creation process and as the

development of broader entrepreneurial competences (Lackéus et al., 2016). There is a growing effort to understand how EE can integrate theoretical reflections developed more broadly within entrepreneurship research, such as the individual–opportunity nexus, in order to inspire more theoretically grounded educational models (Thrane, Blenker, Korsgaard, & Neergaard, 2016). There is also interest in better understanding EE outcomes by challenging taken-for-granted assumptions—such as the consistently positive role of start-up competitions—through the adoption of new philosophical lenses at the methodological level, including realist evaluation² (Brentnall, Rodríguez, & Culkin, 2018). Overall, this phase is characterized by a need to redefine and reconceptualize EE, as research has clearly recognized the inherent complexity of educating for or about entrepreneurship and has begun to explore theoretical lenses that address this complexity with less conformity and arbitrariness. The implicit question underlying this phase can be phrased as: “*Is EE still a dream aimed at preparing future generations for an unpredictable future?*”.

Phase 4 (2021–present): Transforming EE with inclusive, pluralistic, and justice-oriented perspectives. From around 2021 onwards, a fourth phase becomes increasingly visible, characterized by an inclusive, pluralistic, and justice-oriented perspective. Rather than focusing primarily on how EE is organized, these works explicitly interrogate for whom EE is, whose knowledge is recognized, what forms of entrepreneurial agency are legitimized or marginalized, and which philosophical assumptions prevail in the field (Brentnall & Higgins, 2022). In doing so, research examines how EE can be transformed to contribute to social justice (Dodd et al., 2022) and how different but complementary philosophical perspectives can be integrated to address the multidimensional nature of entrepreneurship (e.g., Bernal-Guerrero, Cárdenas-Gutiérrez, & Martín-Gutiérrez, 2023; Farrokhnia, Baggen, Biemans, & Noroozi, 2022). Recent contributions increasingly foreground inclusion and diversity as central concerns of EE, reframing educational

² From the authors, realist evaluation is a theory-driven philosophy, methodology and adaptable logic of enquiry with which to conceptualize and analyse EE programmes, notably EE competitions.

practices to better address heterogeneous learners and social inequalities (e.g., Bell & Bell, 2020; Ndofirepi, 2022; Nikou et al., 2023; Eid & Akella, 2025). This orientation is further strengthened by work in social EE, which conceptualizes entrepreneurial learning as collective, socially embedded, and ethically oriented, emphasizing its potential contribution to broader societal goals (Passarelli et al., 2025). In parallel, gender-inclusive perspectives challenge dominant and exclusionary models of EE, calling for pedagogical approaches that recognize structural inequalities and diverse forms of entrepreneurial model (O'Brien et al., 2019; Orser et al., 2025). Within this evolving body of literature, growing attention is also paid to the role of educators, particularly to how teachers' identities, values, and underlying assumptions influence pedagogical choices and learning environments (Adiningrum et al., 2026; Nikou et al., 2023; O'Brien & Cleary, 2025; Srichana & Buaraphan, 2025). What differentiates this phase from the previous one is an explicitly normative and philosophical interrogation of EE. Philosophical reflection in this phase, specifically, spans ontological, epistemological, and ethical domains, making explicit assumptions that remained largely implicit in earlier phases. EE is no longer characterized solely by opposing perspectives (venture creation versus the development of entrepreneurial competences), it is increasingly shaped by the rethinking of entrepreneurial models and by its role as a pedagogical tool that deliberately conveys multiple societal values beyond purely economic ones, such as social justice.

What we learn from the Special Issue selected articles

After several rounds of evaluation, the special issue "*Rethinking and Renewing Educational Paradigms, Theories and Pedagogies in Entrepreneurship Education*" includes eight articles improving the field over the three macro topics: philosophical, conceptual, and theoretical issues; pedagogies and educational models; and critical perspectives and the blind side of EE.

Philosophical, Conceptual, and Theoretical Issues

Debora Sara Anspach's conceptual study, "*Taking Entrepreneurship Seriously in EE—Conceptual Dimensions and Implications for the Classroom*", focuses on the onto-epistemological rationale of

EE and suggests reframing the field through the perspective of *entrepreneurial*. Anspach introduces four “key pillars”—situatedness, relatedness and open-endedness, everyday creativity and play, and reflexivity—as elements that could serve as conceptual anchors for EE. The paper discusses why a refocusing of EE may be needed and outlines what the perspective of entrepreneurial could bring to the classroom. The study contributes theoretically by opening a discussion on learning objectives, teaching methods, and assessment within this conceptual lens.

Following a metatheoretical perspective, Alexandros Kakouris’s study, “*Informing the Entrepreneurial Mindset: A Dialectical Approach for Educational Use*”, applies the Hegelian dialectical method to two conceptual pillars of Shane’s individual-opportunity nexus: opportunity and knowledge. Step by step, the Hegelian process of sublation moves each concept toward its opposite. Opportunity is contrasted with support, and knowledge with ability. The article presents an integrated framework and identifies four complementary entrepreneurial styles. This approach explores the philosophical foundations of dialectics with potential to develop a new tool for educational practice.

Joseph Athiende and Sonja Johnston’s work, “*A Systematic Review of Entrepreneurial Factors in Preservice Teacher Education Using Ecological Systems Theory*”, draws on ecological systems theory across the micro, meso, exo, macro, and chrono levels. Their review synthesizes factors identified in earlier literature on pre-service teacher education in the context of EE. The paper contributes by offering a structured overview of a research domain situated at the intersection of teacher education and EE. The results may help broaden the current focus on enhancing pre-service teacher (PST) education in schools by integrating EE into higher education institutions, thereby strengthening the capabilities of both pre-service teachers and their students.

Pedagogies and Educational Models

Colin Donaldson, Luke Pittaway, and Heidi Neck’s conceptual paper, “*Models-Based Practice in EE: Integrating Diverse Pedagogies*”, proposes a Models-based Practice approach for organizing

the various pedagogical models present within EE. The authors introduce an Integrated Models-based Practice Decision-Making Model and argue that there is no single instructional method that is superior on its own. Instead, each approach should be aligned with learning objectives, and various techniques can complement one another within a program, leading to context-specific outcomes.

The article “*Performing Entrepreneurialism: A Playful Pedagogy Using Process Drama in EE*” by *Sonja Johnston* explores the use of process drama as a pedagogical intervention in EE. Drawing on interdisciplinary connections between entrepreneurship and drama education, the results of the classroom intervention demonstrate how developing the art of the pitch through play and performativity can foster creativity, innovation, and risk-taking in an EE setting—captured in the emerging term *performing entrepreneurialism*. The study examines how play, performativity, and scriptwriting can support learning activities such as pitch development, live case analyses, and explorations of entrepreneurship strategies.

The conceptual article “*From Loops to Leaps: Accelerating Experiential Learning in Venture Creation Programs*” by *Diamanto Politis, Jonas Gabrielsson, Lise Aaboen, and Dag Håkon Haneberg* theorizes conditions under which experiential learning in venture creation programs (VCPs) may be accelerated. The authors shift attention from cyclical movements (“loops”) to the speed and magnitude (“leaps”) of experiential learning. The article presents a conceptual framework with catalysts that may support such leaps and offers examples of teaching exercises that could enable educators to structure learning activities that exert force and direction in the learning process.

“*Students’ Responses to Teachers’ Epistemological Frames in EE in Higher Education*” is examined by *Sanna Ilonen and Jarna Heinonen*. In this qualitative study, the authors explore what and how students learn about entrepreneurial behavior as they respond to teachers’ epistemological frames, namely delivering knowledge, guiding knowledge construction, and allowing for collaborative and iterative knowledge construction. Drawing on reflections from the team-based

exercise (“The Entrepreneurial Movement”), the study identifies both knowledge-related and affective outcomes connected with these frames. It also introduces “through” competition as an applicable form of learning.

Critical Perspectives and the Blind Side of EE

“The Reflective Entrepreneurship Educator: Developing Teaching Philosophies to Enhance Practice”, an empirical study by *Michael Breum Ramsgaard*, investigates how entrepreneurship educators develop systematic rationales for defining the values, beliefs, and aspirations underlying their teaching practices. The study identifies three categories supporting reflective practice: teaching practice didactics and vocabulary; educators as agents in an institutional context; and professional practice as context for EE. It emphasizes strategies for developing teaching philosophies that are adaptable, purpose-driven, and responsive to the dynamic nature of entrepreneurship and that can facilitate reflective practice.

Grouped across the three macro-topics, the contributions of this special issue collectively offer conceptual grounding, pedagogical development, and educator-focused reflection. While their methodological approaches vary, they each connect to themes that are central to ongoing discussions in EE.

Concluding remarks and future research

The evolution of philosophical, pedagogical, and critical perspectives reveals a shift from early instrumental approaches focused on program design and skills development to more pedagogically informed perspectives emphasizing experiential learning and learner engagement. Over time, attention moved from how entrepreneurship is taught to how it is learned, reflecting a broader shift from teacher-centered to learner-centered approaches. Philosophical and theoretical issues become more explicit only in later phases, particularly as EE is examined at systemic and institutional levels. This later work highlights growing introspection around educational paradigms, the role of universities, and the nature of entrepreneurial learning, underscoring the recognition that EE cannot

be reduced to pedagogical techniques alone but must be grounded in explicit philosophical assumptions. The third macro topic identified in the Call—critical perspectives and the blind side of EE—has received comparatively limited attention until very recently. It is only in the most recent contributions that the field begins to explicitly engage with issues of inclusion, gender, diversity, and social justice, framing EE as a normative pedagogical space rather than a neutral educational intervention based on one-size-fits-all model, which has been clearly recognized as a problematic issue to address (see the recent special issue by Ramsgaard, Higgins, Williams-Middleton, Kenny, 2025). Research agendas should increasingly examine how assumptions about the development of entrepreneurial competencies and knowledge are embedded within educational practices, cultures and societal values that (such diversity and inclusion) that have been recently prioritized over the economic ones. In this discourse, critical perspectives should not be treated as complementary or peripheral, but as central to understanding the purposes and consequences of EE in contemporary societies.

Table 1. Temporal perspectives and philosophical reflections in EE studies

Perspective	Temporal focus	Core emphasis	Philosophical emphasis	Supporting articles (from the dataset)
Instrumental / Programmatic perspective	2005–2010	Programme design, disciplinary integration, skills development, curriculum renewal	Implicit philosophical assumptions; learning framed as skills acquisition and transfer; limited reflection on agency and knowledge	Stone et al. (2005); Beckman (2007); Inegbenebor (2007); Charney & Libecap (2000); Hytti & O’Gorman (2004); Henry et al. (2005); Wang et al. (2025)
Pedagogical and disciplinary perspective	2010–2015	Learning processes, experiential learning, learner engagement, interaction with professional experiences and identities	Explicit epistemological reflection on entrepreneurial learning; emerging ontological and normative questioning of education and agency	Kirby & Ibrahim (2011); Gordon, Hamilton & Jack (2012); Pittaway & Thorpe (2012); Fayolle (2013); Etzkowitz et al. (2012); Kenny (2015); Kyrö (2015)
Systemic / Ecosystem-oriented perspective	2015–2020	Educational ecosystems, institutional roles, stakeholder	Explicit ontological and normative reflection; reconciliation of dual perspectives (venture	Johannisson (2016); Lackéus, Lundqvist & Middleton (2016); Fayolle, Verzat & Wapshott (2016); Hägg & Kurczewska

Perspective	Temporal focus	Core emphasis	Philosophical emphasis	Supporting articles (from the dataset)
Inclusive, pluralistic, and justice-oriented perspective	2021–present	Inclusion, diversity, social justice, ethical orientation, teacher identity, collective and socially embedded entrepreneurial learning	Explicit ontological, epistemological, and ethical reflection; entrepreneurial agency conceptualised as relational, situated, and collective	(2016); Refai & Higgins (2017); Thrane et al. (2016); Brentnall, Rodríguez & Culkín (2018); O’Brien, Cooney & Blenker (2019) Bell & Bell (2020); Ndofirepi (2022); Brentnall & Higgins (2022); Dodd et al. (2022); Farrokhnia et al. (2022); Nikou, Brush & Wraae (2023); Bernal-Guerrero, Cárdenas-Gutiérrez & Martín-Gutiérrez (2023); Passarelli, Bongiorno & Corrado (2025); Eid & Akella (2025); Orser et al. (2025); O’Brien & Cleary (2025); Adiningrum et al. (2026)

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