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Pedagogical Approaches to Responsible Entrepreneurship Education

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Abstract: This article explores innovations in and pedagogical approaches to Responsible Entrepreneurship Education (REE), with a specific focus on how to advance responsible entrepreneurial competencies (“know-how”) and entrepreneurial practices (“know-that”). Consequently, this article proposes the “4Rs” framework (re-imagining, reconfiguring, reshaping, and reforming) to guide entrepreneurship educators’ actions. Firstly, it is necessary to “re-imagine” the intended and enacted curriculum to develop a contemporary awareness and knowledge of social and environmental enterprises. Secondly, it is essential to “reconfigure” teaching pedagogies to problematize the entrepreneurship environment and outer world. Thirdly, it is required for educators to “reshape” the attained curriculum with the stakeholders to offer learners co-curricular and extracurricular experiences. Finally, pedagogical “reforms” provide an opportunity to incorporate innovations into the discovery of new knowledge and paths of responsibilities. These pedagogical approaches support entrepreneurial learning as “processes” and entrepreneurship as a “process” aligned to the achievement of responsible entrepreneurial behavior.

Keywords: Principles of Responsible Management Education (PRME); Responsible Entrepreneurship Education (REE); entrepreneurial curriculum and pedagogy design; responsible education; responsible entrepreneurship revolution; Innovation and Entrepreneurship for Higher Education (IE4HE); British Council—Innovation for African Universities (IAU) programme



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1. Introduction

Innovation is required to develop effective entrepreneurship education (EE) in the higher education system. EE consists of any pedagogical [programme] or process of education for entrepreneurial competencies and skills [1], p.702. Furthermore, any activity that involves the discovery, evaluation, and exploitation of opportunities for new venture creation is regarded as entrepreneurship [2]. Another category, Intrapreneurship describes the application of an enterprise’s behavior, attributes and skills within corporate or public-sector organizations [3]. EE supports these processes [4]. Because the previous research on EE failed to adequately address how EE innovation can be adapted to respond to social and environmental challenges, this article develops a proposition on re-imagining and reconfiguring the design of the EE curriculum and teaching pedagogy that advances entrepreneurial behavior within the scope of responsible principles (economic, social and environmental innovations).

EE is considered a medium for preparing citizens to develop the knowledge, competencies and skills that promote an inclusive society, employment opportunities, well-being and social responsibility. Embedded in EE is the entrepreneurial competence necessary for successful employment and a fulfilling career [5,6]. Previous scholars described EE and learning as “processes” and entrepreneurship as a “process” that can be achieved through action learning, training and practice [7]. EE focuses on facilitating competencies and skills through adaptative “learning in the curriculum” and “learning beyond the curriculum” [3]. EE is conceptualized as a means that motivates intentions, thoughts, persistence and behavior [8].

This study makes several contributions to knowledge—especially on how EE could foster more responsible entrepreneurs and positively impact society. Several models propose a learning-by-doing approach, however, learning-by-doing-what needs to be further addressed [9]. Conceptually, this article critically tackles current EE approaches. There is a failure of traditional educational approaches to prepare graduates to act responsibly [10]. To overcome some of these challenges, international organizations such as the British Council designed the Innovation for African Universities (IAU) programme to explore ways of improving EE. Although developing entrepreneurship-relevant competencies and skills is the major goal of EE [11], it is vital also to focus on facilitating social entrepreneurship (SE) and environmental entrepreneurship [12].

This study is framed against the backdrop of a conceptual approach, integrating sustainable EE with social and environmental outcomes. The conceptual method has become a powerful means of creating new knowledge through theory building, theory adaptation, typology and building models [13]. It examines the aim and objectives of EE. How EE can focus on developing entrepreneurial mindsets, competencies and skills has become a major concern. There has been debate on whether the focus of education policy should be on vocational or core education [14]. Furthermore, this article develops the context of EE and discusses for whom EE is intended and what the expected outcomes of EE should be, including the underlying social responsibilities of EE.

First, the article reviews the theoretical and philosophical notions of EE. This is followed by critiques of entrepreneurship and management education. Next, the study explores the principles related to the achievement of sustainable EE and Principles of Responsible Management Education (PRME) [15]. This is followed by a radical approach to social and environmental entrepreneurial discovery, curriculum design and a pedagogical reforms framework to guide instructors’ actions. Finally, the article concludes with a reflection on the values of Responsible Entrepreneurship Education (REE), together with the missing links, conclusion and implications.

2. Philosophical Foundations and Entrepreneurship Education

Globally, EE has turned out to be one of the fastest-growing fields of knowledge directed toward enhancing entrepreneurial intentions and employability skills [16,17] using several pedagogical methods (traditional learning or experiential learning) [18]. Therefore, entrepreneurship is a process (Figure 1) that is learnable and achievable [19]. This can be described as the model of the “knowledge acquisition” process [20]. The entrepreneurship process can be broadly divided into two phases. Phase 1 represents the learning process of “know-how”. Phase 2 represents the “practice process” (“know that” or the application of ideas) that leads to problem solving and value creation.



Figure 1. Entrepreneurship as a Process model. Author’s model.

Figure 1 reveals that Phase 1 (Learning) starts with awareness, analyzing and evaluating opportunities and making discoveries through formal or informal learning. Formal learning takes the form of EE and a work-based environment, while informal learning develops through a family or social orientation. Phase 2 (Practice, “know-that”) involves problem solving, leadership, responsibility and value creation, and combines creativity, idea generation, problem identification, innovation and practical action.

Entrepreneurship as a “Process model” represents the sequence of knowledge exploration, application and evaluation that takes place in EE (either formal or informal education). However, it has been argued that the way in which EE is practiced is ineffective [21,22]. Another argument is that EE has traditionally been taught from a business administration perspective, where predicting the future is central and the world is seen as linear, whereas real-world entrepreneurship develops in a highly uncertain environment [9]. In most cases, EE tells stories of characteristics and successes but fails to take on the challenge [22]. Another critique of EE is that educators often fail to adequately discuss entrepreneurial failure [11]. Therefore, several propositions and concerns about EE abound.

First, it is never clear what the aims and objectives of Entrepreneurship Education are. Entrepreneurship has been taught for over 60 years in business schools, engineering schools and universities [23]. EE encompasses “developing the mindset, skillset, and practice, necessary for starting new ventures” [24], p. 10. The two most frequently used terms are EE and enterprise education. While enterprise education is primarily used in learning environments focusing more broadly on personal development, mindset, skills and abilities, EE focuses more on the specific context of setting up a venture and becoming self-employed [25]. Therefore, EE includes all of the formal programs and training intended to develop learners’ competencies and skills [11]. The goal of EE is to change mindsets and create innovative, risk-taking behavior [17] in order to contribute to lifelong learning [26]. This is critical for graduate entrepreneurial career making, thereby achieving sustainable value for business and society [27,28].

The second proposition is for whom is EE and learning intended? EE focuses on developing all categories of learners’ creativity, competencies, skills and entrepreneurial behavior. However, there is a black box and different interpretations of entrepreneurship [21,29]. These lead to considerable confusion [21]. There are distinctions between the definitions of enterprise and entrepreneurship education and also significant overlap in the manner in

which they are designed and delivered [30]. Many studies take a pedagogical approach to defining EE [1,26,31]. Therefore, EE is critical to individual cognition, thoughts and actions. It is expected that the process will enhance the learner's ability to identify opportunities, analyze the environment and make responsible decisions [32]. The resonance with entrepreneurial studies is obvious.

The third vagueness is the lack of underlying social responsibilities of EE. EE is often built on the foundation of Ajzen's theory of planned behavior (TPB) [33], the entrepreneurial event model [34], Bandura's [35] social learning theory and Dyer's [36] model of entrepreneurial careers. There appears to be too much emphasis on the economic roles of employment and growth, which has resulted in serious debate about its effects [37]. Therefore, EE refers to "*the whole set of education and training activities (. . .) that try to develop in the participants the intention to perform entrepreneurial behaviours, or some of the elements that affect that intention, such as entrepreneurial knowledge, the desirability of the entrepreneurial activity, or its feasibility*" [38], p. 163. Furthermore, the discovery and development of opportunities are other popular models applied in EE research that predict actions based on intentions [39], including optimism, self-efficacy and creativity [40]. However, there is a lack of attention to the effects of EE and entrepreneurial career choices or behavior [37].

The fourth ambiguity relates to the expected EE outcomes. There are different opinions concerning what the outcome of EE should be. The label "entrepreneurship" is the source of this problem, and it is suggested that its use should be dropped [21], p. 740. One leans on a rather narrow definition of entrepreneurship, viewed as starting a business [25]. Another lens emphasizes that it is not at all about starting a new business, but rather about making students more creative, opportunity-oriented, proactive and innovative [25]. Additionally, EE is considered a dynamic concept, reflecting personal values, societal changes and cultural differences [23].

It has been argued that the field of entrepreneurship is "concerned with growth and decay; with destruction, with alertness to the differences that might make a difference; with risky ventures that are themselves an adventure, with maturing, animating or transforming; with creativity and disclosing that which is not yet fully known" [19], p. 600. Sustainable education should enable the creation of socially responsible citizens, who take an active role in shaping their future and that of their society through engaging in commercial entrepreneurship, social entrepreneurship, digital entrepreneurship and green entrepreneurship [41]. These forms of entrepreneurship focus on the different challenges in society.

3. How Does Entrepreneurship Work in Theory and Practice?

The varying definitions of entrepreneurship and variations in the pedagogical methods make it difficult for EE educators to offer firm advice about how to approach EE [25]. An entrepreneurial intention has been defined as one's desire to own or start a business [42]. Research on EE has been very popular in recent decades; however, key educational and didactical issues remain [43]. In most cases, entrepreneurial pedagogy (*part of management education*) is still seen as part of business studies and teaching entrepreneurship often uses business terminology and methods [4].

Arguably, the role of business schools is to be critical of the development of an enterprising mindset and the actions of the younger members of society [44,45]. Some critics of business education have argued that there exist problems related to matters being "lost in translation" [46] and "lost in creativity and innovation thinking" [47]. Furthermore, there is a problem with how EE is designed and delivered, thereby limiting creativity or constraining thinking and innovation. "Lost Before Translation," relates to the tendency among academics to design studies without input from business managers or employees [46,48].

EE is not commonly related to ethics and the EE policies are not fully regulated [49]. Aladag and Dal [49] defined ethics as referring to individual moral and behavioral habits that determine the essential character of existence, and the rules examine moral principles and values. There are questions about the skill-based approach that is typically adopted

during business school courses [50] and the misinformation that management academics give to students in the classroom, which can have damaging consequences, including undermining the students' well-being and limiting their aspirations [51]. Within these contexts, many argue that the education system is failing to impart useful employability skills, prepare leaders, instil norms of ethical behavior and produce responsible management professionals.

Addressing these challenges presents an opportunity for EE to increase the awareness of training practices and their value [23]. It is unclear how EE contributes towards creating an inclusive society and promoting wellbeing and social responsibility. Educators need to take a more critical stance towards re-thinking (re-imagining) what they teach or how, as well as the pedagogy and impact of EE. For example, there is a need to integrate technological innovations and digital literacy into business management programs [52]. In light of this, it is necessary to re-examine the relationship between EE, entrepreneurial intentions, problem solving and value creation. According to Darics [50], nurturing analytical and critical thinking skills will enable students to understand and challenge when social control, power or injustice is enacted within organizations.

4. Sustainable Entrepreneurship Education

Sustainable entrepreneurship has been defined as “preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society” [53], p. 632. PRME was initiated in 2007 to embed business education and sustainability within the business school curriculum globally [54,55]. PRME focuses on the need to integrate responsible leadership and CSR in teaching and research [55]. The initiative is targeted at developing the capabilities of students to be the future generators of sustainable value for business and society [56].

It has been argued that sustainable entrepreneurship deploys existing resources effectively by not jeopardizing the potential of future generations to access resources [57]. The British Council-IAU program was designed to understand higher education ecosystem needs, societal problems and solutions. Furthermore, PRME defines the relationship between EE and commercial, social, digital and environmental innovation. PRME and the Sustainable Development Goals (17-SDGs) were introduced by the United Nations (UN) as a set of voluntary principles to develop future leaders with the necessary insights into the complex issues facing business and society [58]. More than 13 years after the launch of PRME, the need to address social and environmental sustainability is perhaps becoming even more critical [55].

The UN 17 SDGs and PRME focus on promoting sustainable development. Since its initiation, more than 800 universities in more than 85 countries have joined the PRME initiative [59] and the UN is still encouraging new institutions to sign up to the initiative [60]. PRME extends the application of social responsibility and sustainability into management education, imparting a sense of a moral compass as well as ideas of corporate responsibility and global social responsibility (GSR) [28]. In this context, sustainable education has been categorized into four descriptors [61], p. 63, as follows:

- Sustaining: focuses on sustaining people, communities and ecosystems
- Tenable: issues related to ethics, integrity, justice, respect and inclusiveness
- Healthy: maintaining a viable system and nurturing healthy relationships
- Durable.

PRME highlights the need for management education to develop the capacity of individuals and society to cope with uncertain and complex global challenges through responsible innovations [62]. PRME's value propositions and principles are dedicated to achieving the SDGs, integrating sustainable development into the curriculum, teaching pedagogy and research [10]. PRME values focus on developing students' capabilities,

social responsibility, and responsible leadership, facilitating stakeholder dialogue, and the achievement of sustainable environmental and economic responsibilities [56].

PRME is aimed at driving change and a fundamental rethinking of management education through questioning and challenging assumptions [28]. Despite the relevance of the PRME initiative, several challenges limit the achievement of its targets. Sustainability is becoming more complex given the global technological and environmental changes that are occurring, such as global warming and artificial intelligence [55]. Although PRME has received significant attention since its inception, questions linger concerning its effectiveness and legitimacy, juxtaposed with strong support by its proponents [45].

EE, at all levels of education, is required to help people advance their knowledge, skills, self-efficacy, self-identity, values, beliefs and needs [3,63]. EE and entrepreneurial role models are regarded as facilitators of entrepreneurial career choices or behavior [37]. One of the questions that scholars and experts ask is how responsible management education can be envisioned [10]. Furthermore, educators find it challenging to embed sustainability into the management curriculum [45]. Critics contend that there must be a much stronger alignment between embedded ethical values and practices [45].

Sustainable education, or transformative learning, has become part of the new sustainability agenda [61]. Hence, entrepreneurship educators are expected to design and deliver effective EE; build collaborative relationships with stakeholders; and motivate and inspire students to develop enterprising behavior and competencies [3], p. 11. Moreover, entrepreneurship educators are expected to reflect on their teaching practice [3]. Problem solving has become a central method in both the philosophy of science and cognitive science [20]. Additionally, a feedback loop of the opportunity development process can contribute to the effectiveness of entrepreneurship training [64].

Higher education institutions engage in EE to increase their social value creation and develop students' opportunities recognition. Entrepreneurial educators focus on enhancing the student experience, which will lead to the achievement of desirable outcomes [3]. Based on current practices, business schools have been relatively successful in connecting with key education stakeholders, being UN-PRME signatories and committing to its 17 Sustainable Development Goals (SDGs) [15] but there is less evidence of how these impressive mission statements are reflected in the way in which management education is delivered.

5. Social and Environmental Entrepreneurial Discovery

EE focuses on developing the motivation, self-efficacy and ability of learners to bridge theory and practice by placing their classroom learning in a relevant, meaningful social and environmental context [65]. Social entrepreneurs engage in entrepreneurial activities, such as opportunity identification, exploitation, resource mobilization, and innovation, to create "a new venture or innovatively manage an existing organization" to achieve their social mission [66], p. 519. There has been an increased interest in SE and social innovation during the last decade [67]. SE represents a powerful mechanism for confronting poverty, empowering women, catalyzing social transformation, fostering inclusive growth in subsistence marketplaces and effecting institutional change [67].

While social responsiveness and sustainability have become increasingly important in management education and have found their way into accreditation standards, many business schools are yet to fully embrace and integrate them into their curriculum [68]. The policy of infusing corporate social responsibility (CSR), SE and social innovation [69] into the education system has generated considerable interest in the last few decades [25]. The debates on the relevance of EE have always focused on the role of entrepreneurship in economic development. It is believed that promoting entrepreneurial education in high schools, colleges and universities will have a positive impact on the entrepreneurial dynamism of world economies.

By undertaking EE, learners are likely to develop the knowledge, entrepreneurial skills and 'practical experience' required to start up a business or become 'intrapreneurial' in employment in private and public organizations [70]. Consequently, EE should focus on

making students more creative, opportunity-oriented, proactive and innovative, adhering to a wide definition of entrepreneurship that is relevant to all walks of life [25]. To achieve these objectives, EE focuses on the personality characteristics of entrepreneurs and their planned behavior. However, the question of whether individuals can be taught to be entrepreneurial remains the subject of debate in academic and practitioner circles [71].

Most definitions of SE converge on the primacy of social value creation as the main objective of the venture, while creating economic value [67]. Fortin [72] once defined entrepreneurship as the appropriation and management of human, physical and financial resources to create, implement and develop solutions that meet the needs of individuals and societies [73], p. 7. This definition highlights the changing world's economic structure and societies. It also highlights the management of certain character traits that stimulate entrepreneurship. Therefore, an entrepreneur is a person who can turn a dream, problem or opportunity into a viable business. The concept of an intrapreneur is recognized and defined as someone who acts or takes responsibility for carrying out innovation, of any kind, within an enterprise [73]. These notions form the foundation on which EE develops.

Entrepreneurs contribute to solving environmental problems by helping the extant institutions to achieve their goals and by creating new, more environmentally sustainable products, services and institutions [74]. A model of environmental innovation should create entrepreneurs who address environmental uncertainty and provide innovations that engage in resource allocation to address environmental degradation [74]. In this context, EE must integrate social and environmental innovations that help students to develop the knowledge and skills to create sustainable solutions [75]. There is an argument that sustainability does not retain a strong presence in business schools and that sustainability integration in business academia requires a significant transformation [76].

6. Entrepreneurial Curriculum Design and Teaching Pedagogy

Universities are at the forefront of advancing EE and innovations. Despite the unprecedented growth of EE, there is no universal curriculum for the teaching of entrepreneurship. The British Council IAU program explored synergies for promoting effective EE and innovations aimed at overcoming the challenges of universities, society and the environment. The curriculum represents the totality of the experiences provided to the learner in order to attain general knowledge and skills [77]. Curriculum design and teaching pedagogy are necessary to plan and deliver effective EE and enhance the student learning experience. According to Pak et al. [78], the curriculum is typically conceptualized in three distinct forms: (i) the intended curriculum; (ii) the enacted curriculum; and (iii) the attained curriculum. Seitz [79] summarises these concepts with the “intended” curriculum being defined as what societies envisage as important to learn.

Zins [80] explains the difference between ‘empirical knowledge’ (or ‘know-how’) (the understanding of entrepreneurship) and explicit knowledge (‘know-that’) (behaving as an entrepreneur) as an epistemology of learning. Both know-how and know-that are embedded in the “learning about” and “learning for” (how to do or be) which shows a typical student's EE journey [3]. What is delivered in the classroom constitutes the “enacted” curriculum. What students learn constitutes the “achieved” or “attained” curriculum” [79], p. 73. As well as to the three components of the educational environment—curriculum, instruction, and assessment [81]—EE must also be aligned with the intended outcomes. The extent to which these elements work together in guiding instruction and student learning is typically referred to as alignment [81].

When the EE curriculum and teaching pedagogy are aligned, the achievement of responsible entrepreneurial behavior moves in the intended direction. Table 1 has been adapted from the [3], p. 22 model, which incorporates learning into the curriculum and learning beyond the curriculum (referred to as the curricular, co-curricular and extracurricular learning pipeline), and has been modified to illustrate the enacted, alignment and cognitive process of developing effective social and environmental EE. The learning pipeline develops enterprise awareness (which enables an understanding of what the enter-

prise means to learners); an entrepreneurial mindset (through participatory learning); an entrepreneurial capability (through guided experiences and practice); and entrepreneurial effectiveness (self-directed progression and leadership).

Table 1. Entrepreneurial Curriculum and pedagogy outcomes.

Curriculum Design	Teaching Pedagogy	Intended Learning Outcomes
Enacted Curriculum	Awareness and knowledge of enterprises and opportunities	Developing understanding of the economy, the meaning of enterprise related to economic, social and environmental behaviors ('know-how').
	Problem identification	Learning about entrepreneurship and developing an entrepreneurial mindset based on problem identification (entrepreneurial intention) ('know-how').
	Experiential Learning	Exploring live case studies and developing an entrepreneurial capability to act ('know-how').
	Self-directed Learning	Personalized entrepreneurial learning and leadership (as intrapreneur or entrepreneur) ('know-how').
Curriculum Alignment	Engagement with internal stakeholders (such as enterprise centers, business clubs and societies)	Networking, experimenting and showcasing capabilities ('know-how').
Cognitive Process	External engagement (Community events, social events, exhibitions, industry visits, etc.)	Critical feedback from business managers and community leaders, developing potential partners and access to investors and early users ('know-how').
	Placement and work-based learning	Problem solving and development of guided experience and practices (entrepreneurial effectiveness) or ('know-that').
	Pre-incubation, incubation and problem-solving	Testing and reviewing prototypes and value propositions (entrepreneurial effectiveness) ('know-that').
Sustainability	Economic responsibilities, protection of the planet and guaranteed social well-being	Develop knowledge associated with sustainability concerning business strategies, policies and practices.
Corporate Social Responsibility (CSR)	Promotion of social, environmental and ethical responsibilities	Focus on innovations around social and environmental sustainability, ethics and responsibility of individuals and organizations.

Source: Compiled by the Author.

It is necessary to reshape and align the curriculum to enable stakeholders to engage in EE activities that translate into meaningful practices and outcomes. Any person, group or organization that has an interest in a policy or entity that can either affect or be affected by the entity or policy or activities is a stakeholder. "Stakeholder theory" has emerged "as a new narrative to understand and remedy three interconnected business problems—the problem of understanding how value is created and traded, the problem of connecting ethics and capitalism, and the problem of helping managers think about management such that the first two problems are addressed" [82], p. 403.

It is essential to reconfigure the EE curricular and extra-curricular learning activities to limit the barriers to EE [83,84]. Reconfiguring around stakeholders enables the extra-curricular (outdoor) learning relevance of knowledge or skills [7,85–87]. Experiential learning engages the students in their learning process, reduces one-way communication and places the learner at the center [83]. Creativity and innovation should form the foundation of EE to enable students to develop knowledge on how to develop their creativity and devise the innovations required to foster a competitive advantage [7,88].

Re-imagining the curriculum and teaching pedagogies could allow problem-based learning (PBL), focused on “inquiry activities, self-directed learning, information mining, dialogue and collaborative learning, that can be incorporated into the teaching design [89,90]. EE tutors or mentors focus on coaching or guiding learners to identify a specific problem to enable them to develop the relevant skills and competence to develop employability skills [91]. EE focuses on providing students with the opportunity recognition, creativity and innovation required to identify a problem in society for which a solution does not currently exist, or for which the solution can be improved [18]. Exploring live case studies enable the examination of real business issues that have societal and industrial relevance.

There remain questions about whether the curriculum initiatives are effective in developing an entrepreneurial mindset among students and whether “the so-called entrepreneurial perspective that can be taught throughout the curriculum?” [71], p. 18. Experiential learning approaches, such as gamification, are well-suited to management and EE [83]. Entrepreneurial curricular learning should be aligned with the classroom and outdoor experiences to enable students to develop subject specialisms, employability skills and career aspirations.

Moreover, EE should equip students with the knowledge to analyze the business environment, and advance their employability skills, social skills, entrepreneurial behavior and attainment [92]. It should focus on improving awareness, creativity and cognitive functioning [87]. Peschl et al. [18] propose that learners are put into experiential situations where they have incomplete information and would ideally like to have more information in order to decide about their next step.

EE should focus on creating awareness and developing knowledge of the negative environmental consequences of economic development and as well as possible solutions to economic growth, environmental and social problems. The desirable outcome of EE should be to develop students’ future entrepreneurial behavior, which leads to responsible entrepreneurship, intrapreneurial responsible management and business creation/small business development. The EE curriculum and pedagogy should focus on developing learners’ attitudes to allow learners to develop problem solving skills that are transferable to the real world [93], critical thinking (abstraction) and connectivity (System thinking), [94], making connections, assessing ideas and engaging in solving contemporary issues [3]. Peschl et al. [18] propose that to increase the student experience, EE educators should provide the students with exercises that allow learners to present their problem, solution and customer segment to multiple external advisors who are business and technical professionals on a one-to-one basis.

A major problem with teaching entrepreneurship is that some institutions have a large cohort of management students which limits problem-based learning and one-to-one support. To be effective, an entrepreneurial curriculum should be designed specifically to bridge the gaps between theory and practice, incorporating the new emerging economy (high-growth industries which are at the cutting edge of technology, such as big data and artificial intelligence). EE should focus on creating awareness by allowing self-control which enables students to reflect on their aptitudes, skills enhancement and creativity. Developing critical thinking will enable graduates to adapt to changing work conditions, economy and society. Beyond classroom activities, EE should provide learning spaces that enable experiential learning and interactions by students with diverse stakeholders. Although several enterprise learning models have recommended action-based and experiential learning strategies, there is a lack of information with respect to the specific tools, activities and methods [18].

7. Responsible Entrepreneurship Education (REE)

Entrepreneurship should be a solution to, rather than a cause of, environmental and social problems [74]. The PRME initiative urges business schools to integrate environmental, social, leadership and governance responsibilities and cross-disciplinary topics into core courses, as well as foster diversity among their faculty and students. Proposing an REE

revolution, this article posits that EE must focus on developing students' competencies related to social and environmentally sustainable innovations that make it possible to identify and pursue opportunities and grow existing ventures. REE provides innovative insights into educational strategies for the continued preparation of entrepreneurs that recognize economic responsibility, creativity and environmental, digital and technological sustainability [95].

EE refers to knowledge-generating activities (whether it is an educational or non-educational system) that are designed to develop the participants' entrepreneurial awareness [96]. EE prepares individuals for employment and career success through the acquisition of the requisite knowledge, skills and experience (self-efficacy, self-determination and self-identity) [3,97] that lead to enterprising behavior (Figure 2). Examples of good EE practices include extracurricular activities, interdisciplinary collaborations, interdisciplinary micro-credit, non-credit bearing modules and formative assessment. The main focus of REE is on the application of enterprising competencies, which tends to extend the learning environment into environments far beyond the classroom—these may include legal and funding-related issues, as well as 'start-up' and 'growth' or 'scale-up' strategies [3]. It also focuses on developing enterprising attitudes, behavior and competencies.

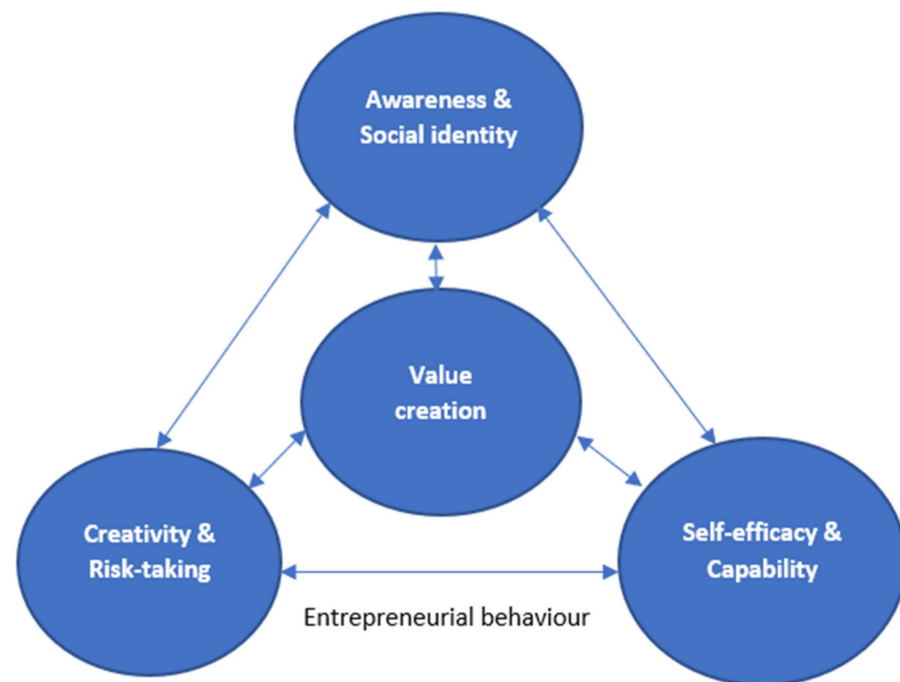


Figure 2. Entrepreneurial Cognitive Processes model. Source: Author's model.

Self-awareness highlights the importance of emerging knowledge to one's self-confidence and an attitudinal tendency toward entrepreneurship [37]. Self-awareness is an understanding of what an enterprise means to an individual, competencies and self-regulation [98,99]. It has been suggested that all aspects of education must be designed to work together in a uniquely integrated fashion [100]. A major challenge for EE is how to develop the entrepreneurial experiences of students such that the students categorize and conceptualize entrepreneurial failure [11].

In the context of self-efficacy, entrepreneurial experience via knowledge plays a role [37]. Self-efficacy (personality and social identity, motivation and goal) is a key personal variable in Bandura's social cognitive theory [35,101], defined as "an individual's belief in his or her own ability to organize and implement action to produce the desired achievements and results" [101], p. 3. Through EE, students are capable of optimizing their learning, in addition to the support that they receive from their families and teachers in educational settings.

Self-capability and self-efficacy are the emotional drivers of entrepreneurship. A major concern is how to embed employability skills into the formal and informal education systems [102–104]. Defined as “the negative or positive attitude that individuals have about themselves” [105], self-esteem (worth-based, efficacy-based and authenticity-based esteem) is usually linked to one of the three motives of the self, each of which primarily emerges through the ‘verification’ of the social/group, role, and person identities, respectively [105].

Creativity and risk-taking lead to entrepreneurial competencies, opportunity recognition, evaluation and decision-making. Entrepreneurial competencies develop through enquiring, critical thinking and inspiring leadership, which enable learners to develop a positive attitude towards value creation [3]. Entrepreneurs are required to adjust to emerging knowledge and changes in the global market, society, technology and complex world. The foundation of EE should be based on “a specific set of values (beliefs) and needs which provide the individual with the intrinsic motivation and self-determination to engage in entrepreneurial behavior” [97], p. 292 and the new economy (related to social, digital and environmental problem solving).

8. Conclusions and Implications

It is time to make EE more relevant. More than ever, the global economic, social and environmental challenges require an EE revolution. The argument is that a pedagogical responsible EE revolution is required at all levels of education and societies to build an inclusive society, positive entrepreneurship, good governance and social responsibility. EE approaches focus on critical domains, such as boosting entrepreneurial competencies, creativity, innovation and problem solving. REE emphasizes the development of students’ capabilities to be future generators of sustainable value for businesses and society. The teaching environment should foster an individual’s belief in his or her own ability to organize and act or pursue opportunities. A major problem is that entrepreneurship educators often apply methods similar to teaching general management courses such as business studies and economics. This approach does not allow adaptive or personalized learning.

This article proposes the “4Rs” (re-imagining, reconfiguring, reshaping and reforming) of the curriculum and teaching pedagogy. The curriculum needs to be reimagined in order to develop a contemporary awareness (know-how) about entrepreneurship and knowledge of the new economy (social, digital and environment). Reconfiguring the teaching pedagogies will help to problematize the entrepreneurship environment and outer world. Reshaping highlights collaboration with the stakeholders (“actors” with an interest or “stake”) [106,107] to offer learners the co-curricular and extracurricular experiences and connections required to respond to entrepreneurial opportunities. Examples of pedagogical reforms include incorporating in-class teaching with outdoor activities, industry visits, work placement learning, consultancy projects, business plan assignments, exhibition tours, business competition, etc.

The EE curriculum typically starts by developing enterprise awareness among students through technical and adaptive teaching pedagogy and research. In addition, EE requires pedagogical reforms to advance entrepreneurial behavior within the scope of responsible principles (economic, social and environmental innovations). EE requires pedagogical reforms that leverage a different logic of innovation, as well as technological, economic and social changes. The “4Rs” of the curriculum and teaching pedagogy integrate “learning in the curriculum” and “learning beyond the curriculum” [3]. It is important that EE focuses on creating awareness and developing the capability of learners to respond to the changing economy, considering the changing social, environmental and emerging technologies and concepts.

The “4Rs” of curriculum design and pedagogical changes enhance the competencies related to the flexibility and adaptability to the changing economy. There is a need to re-think EE to encourage graduates to consider launching not-for-profit-oriented businesses, environmentally sustainable businesses, as well as socially oriented activities. A model of Responsible Entrepreneurship Education (REE) incorporates socially responsibility,

ethically responsibility, environmentally responsibility, economically responsibility, legally responsibility, and responsible leadership.

The achievement of REE depends on the ability to successfully develop learners' self-awareness, self-regulation and self-control. The entrepreneurial curriculum must be adaptable, flexible, and interdisciplinary. EE should develop the capability of future leaders to generate sustainable value for business and society, such as the practice of ethical consumption and production, business creation, self-employment and job creation capabilities, legally responsible and good governance and leadership and management. This aligns with the objectives of the "IAU" model that highlights the relationships between higher education institutions, business, government, and society.

PRME utilises the core principles and values to encourage the reform of management education [62]. Working towards achieving sustainable development provides a range of complex challenges for EE educators, not only related to curriculum design and pedagogy. Teaching students about entrepreneurial failure offers a particular challenge for entrepreneurship educators [11]. Furthermore, it is difficult for educators to apply a teaching pedagogy that allows students to gain direct experience with entrepreneurial practices through "learning by doing", such as work-based learning or placement, due to the limited industrial opportunities and large population of graduates that require such a scheme.

Higher education institutions have dwindling and limited resources to embark on outdoor learning that enables students to gain collaborative learning, creativity, imagination and team-working experience. The concepts of "learning in the curriculum" and "learning beyond the curriculum" must be adaptive and focused on experiential learning (such as business simulations) and PBL. A major challenge is how to overcome the problem of large classrooms, especially when teaching the characteristics of business actions. that is, entrepreneurial action and causal action [83]. Due to dwindling resources, many institutions admit a large cohort and continue to rely on the traditional methods of learning, which turns the teacher into a knowledge transferor, thereby limiting creativity, critical thinking, discovery, evaluation and the exploitation of opportunities.

The lack of a social and environmental orientation limits the achievement of PRME and graduates who self-identify as aligned to social values. Learning through self-directed learning and team learning should be encouraged. Students should have access to mentors who are entrepreneurs and business advisers, to whom they may relate and share their entrepreneurial experiences and journey. Students should be provided with extracurricular experiences, such as opportunities to learn in small groups, social networking, business networking, alumni, and business societies, that enable them to engage in informal learning, cross-culturally and collaboratively.

EE is expected to have a strong impact on the society and economy [104]. Therefore, PRME values require business schools to develop future responsible leaders. Therefore, EE needs to re-orient learners towards social and environmental responsibility, responsible leadership, stewardship and accountability. The attitudes of teachers and students are often seen to be the biggest obstacle to learning [4]. Entrepreneurship educators are expected to collaborate with partners (stakeholders) from all aspects of society to find solutions to problems in industry and society. In addition, an EE pedagogy should enable students to advance their knowledge and gain support [108], advanced employability skills and career choices [94].

Finally, conceptual articles have become a powerful means of undertaking high-quality research and building theory [13,109]. The conceptual approach enables the development of a structure and logic that enhances knowledge by extending an original concept [13]. Although conceptual applications provide the foundations for building scientific and theoretical knowledge, there are some limitations, including an overreliance on previously conducted studies and no form of experiment and primary data [110]. However, this article provides a foundation for future studies in the field of REE. There is a need for future research that explores pedagogical best practices, curriculum design, innovation-

based EE and methodologies. Another opportunity is to study how environmental context influences EE education, the differences in the rural and urban contexts and the role of EE in addressing gender diversity and inclusion.

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References

- Fayolle, A.; Gailly, B.; Lassas-Clerc, N. Assessing the impact of entrepreneurship education programmes: A new methodology. *J. Eur. Ind. Train.* **2006**, *30*, 701–720. [[CrossRef](#)]
- Shane, S.; Venkataraman, S. The promise of entrepreneurship as a field of research. *Acad. Manag. Rev.* **2000**, *25*, 217–226. [[CrossRef](#)]
- QAA. *Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers*; QAA: Gloucestershire, UK, 2018. Available online: <http://www.qaa.ac.uk/docs/qaas/enhancement-and-development/enterprise-and-entrepreneurship-education-2018.pdf> (accessed on 18 August 2020).
- Gustafsson-Pesonen, A.; Remes, L. Evaluation of entrepreneurial development coaching: Changing the teachers' thinking and action on entrepreneurship. *Ann. Innov. Entrep.* **2012**, *3*, 16742. [[CrossRef](#)]
- Mitchelmore, S.; Rowley, J. Entrepreneurial competencies: A literature review and development agenda. *Int. J. Entrep. Behav. Res.* **2010**, *16*, 92–111. [[CrossRef](#)]
- Okolie, U.C.; Ayoola, A.A.; Nwosu, H.E.; Kanu, C.; Mong, I.K. Entrepreneurial competencies of undergraduate students: The case of universities in Nigeria. *Int. J. Manag. Educ.* **2021**, *19*, 100452. [[CrossRef](#)]
- Brook, C.; Lawless, A.; Sanyal, C. Adaptive action learning: A refusal to define. *Action Learn. Res. Pract.* **2021**, *18*, 1–4. [[CrossRef](#)]
- Qian, S.; Brannon, D.L.; Tabak, F. Exploring Mechanisms in the Entrepreneurial Passion–Entrepreneurial Behavior Relationship: Mediating Role of Growth-Oriented Intentions. *J. Career Dev.* **2021**, *49*, 922–933. [[CrossRef](#)]
- Linton, G.; Klinton, M. University entrepreneurship education: A design thinking approach to learning. *J. Innov. Entrep.* **2019**, *8*, 3. [[CrossRef](#)]
- Haertle, J.; Parkes, C.; Murray, A.; Hayes, R. PRME: Building a global movement on responsible management education. *Int. J. Manag. Educ.* **2017**, *15*, 66–72. [[CrossRef](#)]
- Bolinger, A.R.; Brown, K.D. Entrepreneurial Failure as a Threshold Concept: The Effects of Student Experiences. *J. Manag. Educ.* **2015**, *39*, 452–475. [[CrossRef](#)]
- Nicolopoulou, K. Social entrepreneurship between cross-currents: Toward a framework for theoretical restructuring of the field. *J. Small Bus. Manag.* **2014**, *52*, 678–702. [[CrossRef](#)]
- Jaakkola, E. Designing conceptual articles: Four approaches. *AMS Rev.* **2020**, *10*, 18–26. [[CrossRef](#)]
- Okolie, U.C.; Elom, E.N. Improving graduate outcomes for technical colleges in Nigeria. *Aust. J. Career Dev.* **2019**, *28*, 21–30. [[CrossRef](#)]
- United Nations—Sustainable Development Goals (UN-SDGs, 2007). United Nations Principles for Responsible Management Education (PRME). Available online: <https://sustainabledevelopment.un.org/partnership/?p=29256> (accessed on 19 April 2020).
- Boubker, O.; Arroud, M.; Ouajdouni, A. Entrepreneurship education versus management students' entrepreneurial intentions. A PLS-SEM approach. *Int. J. Manag. Educ.* **2021**, *19*, 100450. [[CrossRef](#)]
- Ratten, V.; Usmanij, P. Entrepreneurship education: Time for a change in research direction? *Int. J. Manag. Educ.* **2021**, *19*, 100367. [[CrossRef](#)]
- Peschl, H.; Deng, C.; Larson, N. Entrepreneurial thinking: A signature pedagogy for an uncertain 21st century. *Int. J. Manag. Educ.* **2021**, *19*, 100427. [[CrossRef](#)]
- Hjorth, D.; Holt, R.; Steyaert, C. Entrepreneurship and process studies. *Int. Small Bus. J.* **2015**, *33*, 599–611. Available online: <https://journals.sagepub.com/doi/pdf/10.1177/0266242615583566> (accessed on 17 October 2020). [[CrossRef](#)]
- Goldman, A.I. Epistemology and the theory of problem-solving. *Synthese* **1983**, *55*, 21–48. [[CrossRef](#)]

21. Bridge, S. Is “entrepreneurship” the problem in entrepreneurship education? *Educ. Train.* **2017**, *59*, 740–750. [CrossRef]
22. Yang, A. Why Entrepreneurship Education Does Not Work. *Forbes*. ONLINE 2016. Available online: <https://www.forbes.com/sites/andrewyang/2016/02/25/entrepreneurship-education-does-not-work/?sh=3a842b5815f8> (accessed on 27 June 2022).
23. Loi, M.; Fayolle, A.; van Gelderen, M.; Riot, E.; Refai, D.; Higgins, D.; Haloub, R.; Salusse, M.A.Y.; Lamy, E.; Verzat, C.; et al. Entrepreneurship Education at the Crossroads: Challenging Taken-for-Granted Assumptions and Opening New Perspectives. *J. Manag. Inq.* **2021**, *31*, 123–134. [CrossRef]
24. Neck, H.M.; Corbett, A.C. The scholarship of teaching and learning entrepreneurship. *Entrep. Educ. Pedagog.* **2018**, *1*, 8–41. [CrossRef]
25. Lackéus, M. Entrepreneurship in Education. What, Why, When and How. *Entrepreneurship 360 Background paper*. OCED, Centre for Entrepreneurship, SMEs, Tourism and Local Development. 2015. Available online: https://www.oecd.org/cfe/leed/BGP_Entrepreneurship-in-Education.pdf (accessed on 10 March 2022).
26. Ratten, V.; Jones, P. Covid-19 and entrepreneurship education: Implications for advancing research and practice. *Int. J. Manag. Educ.* **2021**, *19*, 100432. [CrossRef]
27. Kusio, T.; Fiore, M. The perception of entrepreneurship culture by internal university stakeholders. *Eur. Bus. Rev.* **2020**, *32*, 443–457. [CrossRef]
28. Millar, J.; Price, M. Imagining management education: A critique of the contribution of the United Nations PRME to critical reflexivity and rethinking management education. *Manag. Learn.* **2018**, *49*, 346–362. [CrossRef]
29. Baggen, Y.; Mainert, J.; Kretschmar, A.; Lans, T.; Biemans, H.J.A.; Niepel, C.; Greiff, S. Complex Problems in Entrepreneurship Education: Examining Complex Problem-Solving in the Application of Opportunity Identification. *Educ. Res. Int.* **2017**, *2017*, 1768690. [CrossRef]
30. Preedy, S.; Jones, P.; Maas, G.; Duckett, H. Examining the perceived value of extracurricular enterprise activities in relation to entrepreneurial learning processes. *J. Small Bus. Enterp. Dev.* **2020**, *27*, 1085–1105. [CrossRef]
31. Fayolle, A.; Verzat, C.; Wapshott, R. In Quest of Legitimacy, the Theoretical and Methodological Foundations of Entrepreneurship Education Research. *Int. Small Bus. J.* **2016**, *34*, 895–904. [CrossRef]
32. Xingjian, W.; Xiaolang, L.; Jian, S. How Does the Entrepreneurship Education Influence the Students’ Innovation? Testing on the Multiple Mediation Model. *Front. Psychol.* **2019**, *10*, 15–57. Available online: <https://www.frontiersin.org/article/10.3389/fpsyg.2019.01557> (accessed on 27 June 2022).
33. Ajzen, I. The theory of planned behavior. *Organ. Behav. Hum. Decis. Processes* **1991**, *50*, 179–211. [CrossRef]
34. Shapero, A.; Sokol, L. Social dimensions of entrepreneurship. In *The Encyclopedia of Entrepreneurship*; Kent, C., Sexton, D., Vesper, K., Eds.; Prentice-Hall: Hoboken, NJ, USA, 1982; pp. 72–90.
35. Bandura, A. *Social Foundations of Thought and Action: A Social Cognitive Theory*; Prentice-Hall: Englewood Cliffs, NJ, USA, 1986.
36. Dyer, W.G., Jr. Toward a theory of entrepreneurial careers. *Entrep. Theory Pract.* **1994**, *19*, 7–22. [CrossRef]
37. Fellnhofer, K. Entrepreneurship education revisited: Perceived entrepreneurial role models increase perceived behavioural control. *Int. J. Learn. Chang.* **2017**, *9*, 260–283. [CrossRef] [PubMed]
38. Liñán, F. Educación Empresarial y Modelo de Intenciones. Formación para un Empresariado de Calidad. Ph.D. Dissertation, Dpto. Economía Aplicada I, Universidad de Sevilla, Sevilla, Spain, 2004; p. 163.
39. Shane, S. Prior knowledge and the discovery of entrepreneurial opportunities. *Organ. Sci.* **2000**, *11*, 448–469. [CrossRef]
40. Ardichvili, A.; Cardozo, R.; Ray, S. A theory of entrepreneurial opportunity identification and development. *J. Bus. Ventur.* **2003**, *18*, 105–123. [CrossRef]
41. Lindner, J. Entrepreneurship Education for a Sustainable Future. *Discourse Commun. Sustain. Educ.* **2018**, *9*, 115–127. [CrossRef]
42. Bae, T.J.; Qian, S.; Miao, C.; Fiet, J.O. The Relationship between Entrepreneurship Education and Entrepreneurial Intentions: A Meta-Analytic Review. *Entrep. Theory Pract.* **2014**, *38*, 217–254. [CrossRef]
43. Fayolle, A. Personal views on the future of entrepreneurship education. *Entrep. Reg. Dev.* **2013**, *25*, 7–8, 692–701. [CrossRef]
44. Ng, B. The Neuroscience of Growth Mindset and Intrinsic Motivation. *Brain Sci.* **2018**, *8*, 20. [CrossRef]
45. Parkes, C.; Buono, A.F.; Howaidy, G. The Principles for Responsible Management Education (PRME): The first decade—What has been achieved? The next decade—Responsible Management Education’s challenge for the Sustainable Development Goals (SDGs). *Int. J. Manag. Educ.* **2017**, *15*, 61–65. [CrossRef]
46. Shapiro, D.L.; Kirkman, B. It’s Time to Make Business School Research More Relevant. *Harvard Business Review*. 19 July 2018. Available online: <https://hbr.org/2018/07/its-time-to-make-business-school-research-more-relevant> (accessed on 22 July 2020).
47. Schlee, R.; Harich, K.R. Teaching Creativity to Business Students: How Well Are We Doing? *J. Educ. Bus.* **2014**, *89*, 133–141. [CrossRef]
48. Serdyukov, P. Innovation in education: What works, what doesn’t, and what to do about it? *J. Res. Innov. Teach. Learn.* **2017**, *10*, 4–33. [CrossRef]
49. Aladag, E.; Dal, S. A Critical View on Entrepreneurship Education: A Literature Review. Varazdin: Varazdin Development and Entrepreneurship Agency (VADEA). 2018. Available online: <https://proxy.library.lincoln.ac.uk/conference-papers-proceedings/critical-view-on-entrepreneurship-education/docview/2058257344/se-2?accountid=16461> (accessed on 20 April 2021).
50. Darics, E. Critical Language and Discourse Awareness in Management Education. *J. Manag. Educ.* **2019**, *43*, 651–672. [CrossRef]
51. Giacalone, R.A.; Promislo, M.D. The Menace of Misinformation: Faculty Misstatements in Management Education and Their Consequences. *J. Manag. Educ.* **2019**, *43*, 396–419. [CrossRef]

52. Allen, S.J. On the Cutting Edge or the Chopping Block? Fostering a Digital Mindset and Tech Literacy in Business Management Education. *J. Manag. Educ.* **2020**, *44*, 362–393. [CrossRef]
53. Shepherd, D.; Patzelt, H. The new field of sustainable entrepreneurship: Studying entrepreneurial action linking “what is to be sustained” with “what is to be developed. *Entrep. Theory Pract.* **2011**, *35*, 137–163. [CrossRef]
54. Alcaraz, J.M.; Thiruvattal, E. An Interview with Manuel Escudero. The United Nations’ Principles for Responsible Management Education: A Global Call for Sustainability. *Acad. Manag. Learn. Educ.* **2017**, *9*, 542–550. [CrossRef]
55. Henderson, L.H.; Wersun, A.; Wilson, J.; Mo-ching Yeung, S.; Zhang, K. Principles for responsible management education in 2068. *Futures* **2019**, *111*, 81–89. [CrossRef]
56. PRME. 2021 Global Forum for Responsible Management Education—9th PRME Assembly. 2021. Available online: <https://www.unglobalcompact.org/take-action/events/1752-2021-global-forum-for-responsible-management-education-9th-prme-assembly> (accessed on 12 May 2022).
57. Hermes, J.; Rimanoczy, I. Deep learning for a sustainability future. *Int. J. Manag. Educ.* **2018**, *16*, 460–467. [CrossRef]
58. Forray, J.; Leigh, J.; Kenworthy, A.L. Special Section Cluster on Responsible Management Education: Nurturing an Emerging PRME Ethos. *Acad. Manag. Learn. Educ.* **2015**, *14*, 293–296. [CrossRef]
59. ZHAW School of Management. Principles for Responsible Management Education (PRME). 2021. Available online: <https://www.zhaw.ch/en/sml/about-us/prme/> (accessed on 27 June 2022).
60. Gudic, M.; Laasch, O.; Parkes, C.; Flynn, P.; Ogunyemi, K.; Verbos, A. *The Principles for Responsible Management Education Series*; Routledge Publishing: New York, NY, USA, 2020. Available online: <https://www.routledge.com/The-Principles-for-Responsible-Management-Education-Series/book-series/PRME> (accessed on 27 June 2022).
61. Sterling, S. Sustainable education—Towards a deep learning response to unsustainability. *Policy Pract. A Dev. Educ. Rev.* **2008**, *6*, 63–68. Available online: <https://www.developmenteducationreview.com/issue/issue-6/sustainable-education-towards-deep-learning-response-unsustainability> (accessed on 27 June 2022).
62. Burchell, J.; Kennedy, S.; Murray, A. Responsible management education in UK business schools: Critically examining the role of the United Nations Principles for Responsible Management Education as a driver for change. *Manag. Learn.* **2015**, *46*, 479–497. [CrossRef]
63. UNESCO. Global Education Meeting 2018. Available online: https://en.unesco.org/sites/default/files/2018-12-07_brussels_declaration.pdf (accessed on 27 June 2022).
64. Eller, F.J.; Gielnik, M.M.; Yeves, J.; Alvarado, Y.C.; Guerrero, O.A. Adjusting the Sails: Investigating the Feedback Loop of the Opportunity Development Process in Entrepreneurship Training. *Acad. Manag. Learn. Educ.* **2021**, *21*, 209–235. [CrossRef]
65. Litzky, B.E.; Godshalk, V.M.; Walton-Bongers, C. Social Entrepreneurship and Community Leadership: A Service-Learning Model for Management Education. *J. Manag. Educ.* **2010**, *34*, 142–162. [CrossRef]
66. Zahra, S.A.; Gedajlovic, E.; Neubaum, D.O.; Shulman, J.M. A typology of social entrepreneurs: Motives, search processes and ethical challenges. *J. Bus. Ventur.* **2009**, *24*, 519–532. [CrossRef]
67. Saebi, T.; Foss, N.J.; Linder, S. Social Entrepreneurship Research: Past Achievements and Future Promises. *J. Manag.* **2019**, *45*, 70–95. [CrossRef]
68. Ulbrich, F. Embedding PRME and SDGs Into Business Curriculum. 2020. Available online: <https://www.aacsb.edu/insights/2020/march/embedding-prme-and-sdgs-into-business-curriculum> (accessed on 27 June 2022).
69. Phillips, W.; Lee, H.; Ghobadian, A.; O’Regan, N.; James, P. Social innovation and social entrepreneurship: A systematic review. *Group Organ. Manag.* **2015**, *40*, 428–461. [CrossRef]
70. European Commission. *Entrepreneurship Education: A Guide for Educators*; European Union: Brussels, Belgium, 2014; ISBN 978-92-79-30910-6. [CrossRef]
71. Florin JKarri, R.; Rossiter, N. Fostering entrepreneurial drive in business education: An attitudinal approach. *J. Manag. Educ.* **2007**, *31*, 17–42. [CrossRef]
72. Fortin, P.-A. *Devenez Entrepreneur: Pour un Québec Plus Entrepreneurial*, 2nd ed.; revised and expanded; Publications Transcontinentales Inc. Les Presses de l’Université : Laval, QC, Canada, 1992.
73. Corbeil, Y. Teaching Guide on Entrepreneurship. Entrepreneurship Consultant and Instructor. Québec Entrepreneurship Contest. 1997. Available online: <http://www.inforoutefpt.org/entrepreneurship/concours> (accessed on 15 July 2019).
74. York, J.G.; Venkataraman, S. The entrepreneur–environment nexus: Uncertainty, innovation, and allocation. *J. Bus. Ventur.* **2010**, *25*, 449–463. [CrossRef]
75. Huster, K.; Petrillo, C.; O’Malley, G.; Glassman, D.; Rush, J.; Wasserheit, J. Global Social Entrepreneurship Competitions: Incubators for Innovations in Global Health? *J. Manag. Educ.* **2017**, *41*, 249–271. [CrossRef]
76. Maloni, M.J.; Smith, S.D.; Napshin, S. A Methodology for Building Faculty Support for the United Nations Principles for Responsible Management Education. *J. Manag. Educ.* **2012**, *36*, 312–336. [CrossRef]
77. Marsh, C.; Willis, P. *Curriculum: Alternative Approaches*; Merrill/Prentice Hall: Upper Saddle River, NJ, USA, 2003.
78. Pak, K.; Polikoff, M.S.; Desimone, L.M.; Saldívar García, E. The Adaptive Challenges of Curriculum Implementation: Insights for Educational Leaders Driving Standards-Based Reform. *AERA Open* **2020**, *6*, 2332858420932828. [CrossRef]
79. Seitz, P. Curriculum Alignment Among the Intended, Enacted and Assessed Curricula for Grade 9 Mathematics. *J. Can. Assoc. Curric. Stud. JACCS* **2017**, *15*, 72–94.

80. Zins, C. Conceptual approaches to defining data, information, and knowledge. *J. Am. Soc. Inf. Sci. Technol.* **2007**, *58*, 479–493. [[CrossRef](#)]
81. Kurz, A.; Elliott, S.N.; Wehby, J.H.; Smithson, J.L. Alignment of the Intended, Planned, and Enacted Curriculum in General and Special Education and Its Relation to Student Achievement. *J. Spec. Educ.* **2010**, *44*, 131–145. [[CrossRef](#)]
82. Parmar, B.L.; Freeman, R.E.; Harrison, J.S.; Wicks, A.C.; Purnell, L.; de Colle, S. Stakeholder Theory: The State of the Art. *Acad. Manag. Ann.* **2010**, *4*, 403–445. [[CrossRef](#)]
83. Memar, N.; Sundström, A.; Larsson, T. Teaching Causation and Effectuation in the Large Classroom: A Production–Trade Game. *J. Manag. Educ.* **2021**, *45*, 438–478. [[CrossRef](#)]
84. Theeke, M.; Hall, M.I. Cocurricular Learning in Management Education: Lessons from Legal Education’s Use of Student-Edited Journals. *J. Manag. Educ.* **2021**, *46*, 558–581. [[CrossRef](#)]
85. Clancy, A.; Cullen, J.G.; Hood, A.; McGuinness, C. Student Engagement with Experiential Learning in Large Classes. *J. Manag. Educ.* **2021**, *45*, 340–343. [[CrossRef](#)]
86. He, W.; Zhang, Z.J. Enterprise cybersecurity training and awareness programs: Recommendations for success. *J. Organ. Comput. Electron. Commer.* **2019**, *29*, 249–257. [[CrossRef](#)]
87. Marchant, E.; Todd, C.; Cooksey, R.; Dredge, S.; Jones, H.; Reynolds, D.; Stratton, G.; Dwyer, R.; Lyons, R.; Brophy, S. Curriculum-based outdoor learning for children aged 9–11: A qualitative analysis of pupils’ and teachers’ views. *PLoS ONE* **2019**, *14*, e0212242. [[CrossRef](#)]
88. Acar, O.A.; Tarakci, M.; van Knippenberg, D. Creativity and Innovation Under Constraints: A Cross-Disciplinary Integrative Review. *J. Manag.* **2019**, *45*, 96–121. [[CrossRef](#)]
89. Stanley, T.; Marsden, M. Problem-based learning: Does accounting education need it? *J. Account. Educ.* **2012**, *30*, 267–289. [[CrossRef](#)]
90. Swart, J.; Harcup, J. If I learn do we learn? The link between executive coaching and organizational learning. *Manag. Learn.* **2012**, *44*, 337–354. [[CrossRef](#)]
91. O’Grady, G.; Yew, E.H.J.; Goh, K.P.L.; Schmidt, H.G. *One-Day, One-Problem*; Springer: Dordrecht, The Netherlands, 2012.
92. Small, L.; Shacklock, K.; Marchant, T. Employability: A contemporary review for higher education stakeholders. *J. Vocat. Educ. Train.* **2018**, *70*, 148–166. [[CrossRef](#)]
93. Nabi, G.; Holden, R.; Walmsley, A. From student to entrepreneur: Towards a model of graduate entrepreneurial career-making. *J. Educ. Work.* **2010**, *23*, 389–415. [[CrossRef](#)]
94. World Economic Forum. *The 10 Skills You Need to Thrive in the Fourth Industrial Revolution*; World Economic Forum: Geneva, Switzerland, 2018; Volume 41, pp. 11–18. Available online: <https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution> (accessed on 27 June 2022).
95. Marzi, G.; Caputo, A. *Responsible Entrepreneurship Education: Emerging Research and Opportunities*; IGI Global Publishing: Hershey, PA, USA, 2019. [[CrossRef](#)]
96. Li, L.; Wu, D. Entrepreneurial education and students’ entrepreneurial intention: Does team cooperation matter? *J. Glob. Entrep. Res.* **2019**, *9*, 35. [[CrossRef](#)]
97. Kirkley, W.W. Entrepreneurial behaviour: The role of values. *Int. J. Entrep. Behav. Res.* **2016**, *22*, 290–328. [[CrossRef](#)]
98. Bourner, T.; Rospigliosi, A. Origins of the ethos of action learning. *Action Learn. Res. Pract.* **2019**, *16*, 238–253. [[CrossRef](#)]
99. Brook, C.; Pedler, M. Action learning in academic management education: A state of the field review. *Int. J. Manag. Educ.* **2020**, *18*, 100415. [[CrossRef](#)]
100. Darling-Hammond, L.; Flook, L.; Cook-Harvey, C.; Barron, B.; Osher, D. Implications for educational practice of the science of learning and development. *Appl. Dev. Sci.* **2020**, *24*, 97–140. [[CrossRef](#)]
101. Bandura, A. *Self-Efficacy: The Exercise of Control*; Freeman: New York, NY, USA, 1997.
102. Cheng, Y.-Y. Academic self-efficacy and assessment. *Educ. Psychol.* **2020**, *40*, 389–391. [[CrossRef](#)]
103. Doménech-Betoret, F.; Abellán-Roselló, L.; Gómez-Artiga, A. Self-Efficacy, Satisfaction, and Academic Achievement: The Mediator Role of Students’ Expectancy-Value Beliefs. *Front. Psychol.* **2017**, *8*, 1193. [[CrossRef](#)]
104. Kornelakis, A.; Petrakaki, D. Embedding employability skills in UK higher education: Between digitalization and marketization. *Ind. High. Educ.* **2020**, *34*, 290–297. [[CrossRef](#)]
105. Stets, J.E.; Burke, P.J. Self-Esteem and Identities. *Sociol. Perspect.* **2014**, *57*, 409–433. [[CrossRef](#)]
106. Freeman, R.E. *Strategic Management: A Stakeholder Approach*; Pitman: Boston, UK, 1984.
107. Freeman, R.E. Divergent stakeholder theory. *Acad. Manag. Rev.* **1999**, *24*, 233–236. [[CrossRef](#)]
108. Garnjost, P.; Brown, S.M. Undergraduate business students’ perceptions of learning outcomes in problem-based and faculty-centered courses. *Int. J. Manag. Educ.* **2018**, *16*, 121–130. [[CrossRef](#)]
109. Flick, U. *An Introduction to Qualitative Research*; Sage Publications: London, UK, 2018.
110. Botes, A. Concept analysis: Some limitations and possible solutions. *Curationis* **2002**, *25*, 23–37. [[CrossRef](#)] [[PubMed](#)]