Pedagogy and Andragogy, a Shared Approach to Education in Entrepreneurship for Students in Higher Education

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1 Introduction

Throughout history, adaptation has always been decisive for survival. Civilizations have risen and fallen, unable to transition by embracing change. Although the pursuit of power and the living urge are powerful motivators, survival of the fittest redefines the paradigms of how to succeed. In the globalised world of the twenty-first century, higher education is no stranger to adaptation. As the dwindling younger generations (Keshner, 2019) have forced a change in the fabric of education, pedagogy and andragogy increasingly coexist within the academic ecosystem to better serve the population.

Traditionally, the higher education newcomer used to be the high school graduate, and the occasional adult, who would blend into the population. Today's reality presents a different scenario. Higher education has adapted to serve a diverse population in which the emerging adult

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(Arnett, 2000) and the adult (29+) coexist and collaborate within the same academic context. The population has changed, and newcomers are defined as "the young, adults and life-time learners" (De Jonghe, 2014, p. 66).

The diversity among higher education participants is extensive to education in entrepreneurship. This population, encompassing the non-adolescent, the not-yet adults (Hägg & Kurczewska, 2020; Salvatore, 2018), and the adults, translates into a sundry of educational and life experiences brought forth by students into the classroom (De Jonghe, 2014; Lemoine et al., 2017). Hägg and Kurczewska (2018) utilise the concept of emergent adulthood, to describe the student entrepreneur, and a phase of identity exploration, which calls for the creative use of teaching and learning methods. This phase bridges adolescence and adulthood by providing learning experiences that support more elevated forms of thinking (Arnett, 2000). In this context, pedagogy and andragogy combine to deliver the higher education newcomer, and the student entrepreneur, with the tools to grow into the experience and to flow from essential knowledge acquisition into a more critical and assertive decision-making process (Béchard & Grégoire, 2005; Hägg & Kurczewska, 2018, 2020). Through practical applications, entrepreneurship education promotes engagement into "entrepreneurial action" (Kouakou et al., 2019, p. 117) throughout the higher education experience.

This chapter conceptualises the shared approach of teaching a mixed profile in entrepreneurship education as a journey that enables essential knowledge acquisition and subsequent incremental progression to attain competency. The first section focuses on profiling the student entrepreneur in higher education. The following section discusses the principles and roles of pedagogy and andragogy in teaching entrepreneurship to the mixed profile. The discussion goes on to elaborate on the process and strategies implemented to teach entrepreneurship. The final section proposes that, while each journey is personal and unique, active learning, experiential learning and mentoring coexist and revolve around the mindset becoming triggers behind the progressions towards competency building. To that end, the strategic approaches used by the educator promote exploration and induce disposition to exposure, observation and experimentation. The encouragement to learn by doing (Dewey, 1938) eases the learner into mobilising beyond the basics and real-life scenarios for a hands-on knowledge acquisition.

2 Profiling of the Student Entrepreneur in Higher Education

Higher education has adapted to serve a heterogeneous population, which extends to entrepreneurship education. The literature on entrepreneurship refers to the elusive nature of pinpointing specific personality traits within this population (Gartner, 1988). Although some proposals, like the Big-5 model, have attempted to frame the entrepreneur with descriptors such as openness to experience, conscientiousness, extraversion, agreeableness and neuroticism, there is no blueprint for predicting the personality types and behavioural patterns of the entrepreneur (Kerr et al., 2017).

Nonetheless, beyond the ambiguity of the entrepreneur's profile, the concept has been defined, and the extant literature provides multiple interpretations. For Schumpeter (1951), the entrepreneur is an innovator of services, products or technology, while Bruyat and Julien (2001) refer to a risk-taker who creates new value and pursues profits. Jones and English (2004) describe an individual with the insight to recognise opportunities and the self-esteem, knowledge and skills to act on them. However, while referring to a desirable result of the academic journey, none of these definitions address who is the student entrepreneur in higher education.

According to Hägg and Kurczewska (2018), the student entrepreneur is an emerging adult who lacks theoretical knowledge in entrepreneurship and most likely lacks relevant business experiences. The emergent adult, which refers to an age range of 18–29, along with adult newcomers (29+), and their diversified backgrounds (De Jonghe, 2014; Lemoine et al., 2017), presuppose different levels of basic knowledge, skillsets, maturity, motivation, prior learning and learning readiness (Arnett, 2000; Hidayat, 2018). This assessment regarding the population is critical, as it shapes the experience within the classroom.

The complexities of educating the student entrepreneur of the twenty-first century become apparent as De Jonghe (2014) and Lemoine et al. (2017) highlight the added value of a diverse population, while Hägg and Kurczewska (2020) warn about the limitations of pedagogy and andragogy to address the different learning processes required. Adding on, Hidayat (2018) recognises the maturity level to be particularly significant on the learning disposition, while Bandura (2006) states that the student entrepreneur connects with the social surroundings chooses social

commitments, and self-directs towards the desired outcomes. The result is a mixed profile of heterogeneous formation influenced by family, culture and everyday commitment to a social ecosystem that runs parallel to the academic experience. And still, whether on-site or online, this population requires an educational approach through which content production, pertinence and applicability to real-life scenarios may serve and nurture the academic journey. Teaching this population requires creativity (Gimmon, 2014) and requires multiple strategies to ensure common ground for all participants (Allan et al., 2009). The following section will elaborate on the shared approach to teach entrepreneurship in higher education.

3 A Shared Approach: Pedagogy and Andragogy in Entrepreneurship Education

It has been established that entrepreneurship education faces the challenge of teaching a heterogeneous profile in entrepreneurship courses (von Graevenitz et al., 2010). The quest for the right way to educate relies on a shared approach to accommodate the differing backgrounds and levels of knowledge. Consequently, pedagogy and andragogy coexist and aim to awaken creativity, inspire and motivate into action, and provoke results-driven engagement in entrepreneurship education (Hägg & Kurczewska, 2018, 2020). In this context, the educator and the student pilot the experience to transition from basic knowledge into more profound critical thinking opportunities and practice scenarios. While the end goal is the same, navigating the teaching/learning process relies on the creative use of educational methodologies and strategies ensuring the proper acquisition of essential knowledge and the subsequent layers in complexity up to the competency (Gimmon, 2014; Heinonen & Poikkijoki, 2006). The fluidity of the process should enable and motivate the student towards competency development and subsequent expertise (Jones et al., 2019).

Pedagogy is considered an educational practice to teach subject matter from an information-based and teacher-based perspective (Hägg & Kurczewska, 2018; Jones et al., 2019). In it, the educator designs the instruction and procedures to communicate the desired contents. As part of the shared approach, the higher education newcomer benefits from pedagogical methods to attain instructional clarity (Blaich et al., 2016; Gibb, 2002; Hägg & Kurczewska, 2018).

Andragogy, on the other hand, refers to a learner-centred approach (McNally et al., 2019) led by motivation, perceived pertinence and applicability to real life. As opposed to pedagogy, the andragogic perspective, presupposes "a process of active inquiry, not passive reception of transmitted content" (Knowles, 1990, p. 27). The Andragogy in Practice Model, as outlined by Knowles et al. (2005), identifies the "six core learning andragogic principles" (p. 149), which are: need to know, self-concept, experience, readiness to learn, orientation to learning and motivation to learn. In this regard, Béchard and Toulouse (1991) reflect on how the students' learning approach changes as they mature and take ownership over the learning experience. In this context, the educator becomes an enabler, not a feeder.

Pedagogy and andragogy have transitioned to become more participative and dynamic (Bonwell & Eison, 1991), and their interplay (Garnett & O'Beirne, 2013; Hägg & Kurczewska, 2018) provides the medium to acquire entrepreneurial knowledge, skills and judgmental abilities (Arnett, 2000; Hägg, 2017 as cited by Hägg & Kurczewska, 2018). Beyond the construction and proper understanding of foundational knowledge, the educational process progresses into elevated analysis and contextualization and more involved intuitive experiences. The result is an empowered individual who combines academic knowledge, an evolving critical thinking capacity, and confidence to venture into practical experiences. This person is autonomous to make decisions and face the consequences accordingly (Knowles, 1980a, 1980b).

In terms of the academic experience, the student entrepreneur in higher education benefits from multiple efforts and resources. The information-based perspective or pedagogic approach (Jones et al., 2019) enables knowledge construction and combines with the student-centred approach or andragogy (Knowles, 1990), to nurture the growing capacity of deciding what to do with the knowledge acquired. As the student matures, the andragogic assumptions (Knowles, 1984) shape the empowerment and the attitude moving forward. Heinonen and Poikkijoki (2006) support this notion by alerting to the fact that the "budding entrepreneur needs not only knowledge (science), but also new ways of thinking, new kinds of skills and new modes of behaviour (arts)" (p. 84). Although the continuum between pedagogy and andragogy (Hägg & Kurczewska, 2018) is highly contextual, a shared approach relying on both perspectives supports knowledge acquisition, active participation and

ownership over the learning experience in entrepreneurship (Gibb, 1993, 1996, 2002; Heinonen & Poikkijoki, 2006).

4 The Process of Teaching Entrepreneurship in Higher Education

The process of teaching entrepreneurship in higher education entails serving a mixed profile, inclusive of the emergent adult (18–29) and adults (29+). Regardless of the diversified motivational and involvement levels (Arnett, 2000; De Jonghe, 2014; Hidayat, 2018; Lemoine et al., 2017), the process starts by approaching the need to provide essential instruction through academic courses with educational objectives. Subsequent deepening and subject matter exploration should continue to provoke more complex forms of thinking. Combined with the exposure to academic content, the use of active and experiential learning methodologies, access to mentoring and mindset development become significant components in this educational effort throughout higher education.

The process of teaching entrepreneurship relies on the combination of pedagogic and andragogic strategies to accommodate the diversified needs within the population. Although the combination of methodologies and strategies depend on theoretical knowledge acquisition and validation through practical experience (Neck et al., 2017), student-led instructional practices in entrepreneurship education echo andragogy (Robinson et al., 2016), and align with the hands-on approach of learning to do by doing (Brown, 2003; Dewey, 1938; Hannum & McCombs, 2007; Jonassen, 1991; Kolb & Kolb, 2017). As entrepreneurship is built on the premise of thought and action (Neck et al., 2017), playing, empathising, creating, experimenting and reflecting (Bonwell & Eison, 1991; Neck et al., 2017) are identified as best practices to promote a creative and exciting classroom. Teaching entrepreneurship in this environment enriches academic formation, encourages conceptual connections and boosts the skill acquisition process (Dreyfus, 2004). On the latter, exposure to deliberate practice (Ericsson et al., 1993) enables skill development, and students go through the stages of novice, advanced beginner, competent, proficient and expert (Dreyfus, 2004). In response to the student's progression and advancement, knowledge materialises into execution. Therefore, action-oriented methods are effective to guide the student entrepreneur through the transition from novice to competent and into an iterative flux between pedagogy and andragogy.

Because entrepreneurship is highly contextual, the claim of a precise methodology to teach it would be misleading. Nevertheless, educators favour active learning strategies to provide context and to make concepts graspable. Active learning compensates for the lack of real-life experience and promotes involvement (Bonwell & Eison, 1991). Regardless of the age group, the evidence supports the notion "that active learning enhances learning of course content in comparison to more conventional learning approaches" (Caruth, 2015, p. 47). Some popular strategies used to pursue active learning are Cooperative Learning (Jareño et al., 2014) Simulation and Gamification (Taylor et al., 2012; Wood & Reiners, 2014), Storytelling (Borgoff, 2018), Problem-Based Learning (Bethell & Morgan, 2011; Gurpinar et al., 2011), Flipped Classroom (Hernández & Pérez, 2015), Design Thinking (Tu et al., 2018), Critical Thinking Based Learning, (Bahr, 2010), Competency Based Learning (Voorhees, 2001), Service Learning (Bielefeldt, 2011) and Adventure Education (Dana, 2017). Other initiatives observed in entrepreneurship education are the implementation of co-teaching, the creation of co-working spaces, and the establishment of incubators and accelerators to nurture the academic experience.

The process of entrepreneurship education also capitalises on experiential learning. Popular among entrepreneurship educators, compatible to andragogy and effective in teaching to develop an entrepreneurship mentality (Kolb & Kolb, 2017), experiential learning (Kozlinska, 2011; Lackéus et al., 2016; Mandel & Noyes, 2016; Vanevenhoven & Liguori, 2013) constitutes an important resource to ascertain knowledge acquisition through real-life scenarios. It benefits from self-motivation, maturity and prior learning acquired, and the integration of engaging activities that trigger active involvement.

Experiential learning, or learning from experience, applies to "all levels of human society from the individual, to the group, to organizations, and to society as a whole" (Kolb & Kolb, 2017, p. 11). It starts with exploration, initial decision-making, and eventually, enduring choices (Hägg & Kurczewska, 2018). Neck et al. (2017) state that students cannot be involved spectators but deliberate practitioners through experiential and vicarious learning. Activities like laboratory experiments, discussions, problem-solving cases, simulation exercises, and field experiences focus on action and practice, as a way to learn by experience (Johannisson, 2011; Knowles, 1980b, Mandel & Noyes, 2016; Scott et al., 2016). Living through experiences shapes beliefs (Kolb & Kolb, 2017).

Consequently, providing real-life set-ups to provoke new concept development through association and experience makes experiential learning a significant platform and an enabler for innovation.

While active and experiential learning invoke and provoke deeper understanding through "active inquiry, not passive reception of transmitted content" (Knowles, 1990, p. 27), the evolving mindset shapes entrepreneurial intentions, sharpens opportunity identification and defines the role to be played as involved participants (Neck et al., 2017). Described as the capability of identifying opportunities, and understanding how the entrepreneurial action affects the economic and the social system (Kouakou et al., 2019), the mindset can be developed by addressing contents related to resilience, innovativeness, tolerance to uncertainty, entrepreneurial intentions, value creation and risk-aversion, among others (Krueger, 2015). The mindset may or may not be used for commercial gain, as desirable projects may be directed towards social, cultural and academic endeavours. So, the applicability of knowledge supports empowerment and favours self-commitment, as the student entrepreneur willingly "learns and transforms the experience" (Kolb, 1984, p. 38) into a useful reference.

Alongside active and experiential learning, mentorship nurtures the educational process by providing role models in addition to the skill enhancing scenarios (Gimmon, 2014). Mentoring implies contextualization of theory through practice and guidance based on the students' needs, interests and level of cognition (Gimmon, 2014). It may require differentiated learning strategies to facilitate skill development, intrinsic motivation and opportunity recognition (Detienne & Chandler, 2004; Hägg & Kurczewska, 2020; Honig, 2004).

The diversity of roles (Kent et al., 2003) adopted by mentors attest to their resourcefulness in nurturing the student entrepreneur and impacting the entrepreneurial activity (Honig, 2004). Each mentor–mentee relationship is unique, and its relevance stems from the challenges faced and the strategies used to manoeuvre towards individualised interpretation and knowledge acquisition. Thus, whether to achieve foundational cognitive development or guidance through self-directed approaches in the presence of deeper understanding, every scenario aims to support the progression towards the andragogic assumptions and into transforming experience into permanent learning (Hägg & Kurczewska, 2020; Politis, 2005).

As the need for education in entrepreneurship has never been greater (Blencher et al., 2006; Raposo & do Paço, 2011), newcomers to higher education view knowledge acquisition as a means to an end (De Jonghe, 2014; Wrenn & Wrenn, 2009). Therefore, pertinent scenarios and engaging opportunities become fundamental to connect with students (Senior et al., 2018). Linking knowledge with the needs identified enables meaningful changes and ties academia with society. Through mentorship and co-participation, social interactions translate into involvement with the community, motivation and personal growth (Gimmon, 2014). At the core, social exposure shapes belief, propels the maturation process and promotes a shifts to focus on personally chosen commitments (Bandura, 2006) for social and personal advancement. In sum, provision of essential knowledge relying on active and experiential learning, on shaping the mindset and on mentoring, allows for a layered yet dynamic process of teaching entrepreneurship in higher education.

5 A Framework for the Dual Approach in Entrepreneurship Education

Already described as a non-linear path, this section provides a framework to depict entrepreneurship education as a multi-level journey, inclusive of pedagogy, andragogy and the interactions in-between. Even though, the oversimplified descriptions of the dual approach in education often places pedagogy and andragogy as the extremes of a linear effort, the movement within is highly contextual and layered. As students enter higher education with heterogeneous backgrounds and abilities, interactivity among activities and strategies have become a constant within the journey.

The proposal for the dual approach on entrepreneurship education, named The Pedagogy-Andragogy Shared Approach Model for Entrepreneurship Education, shown in Fig. 1, conceptualizes pedagogy and andragogy as coexisting educational journey's components. The triangular shape on the right side, broader at the bottom and slimmer at the top, represents the pedagogic approach, which refers to the essential information and knowledge dictation required in any learning process. The figure in the left, slimmer at the bottom and broader at the top, represents the andragogic approach and incremental instructional growth (Knowles et al., 2005) along the trajectory. As a whole, the diagram's composition points to equally significant sides and to triangular figures exhibiting inverse proportionality and complementarity.

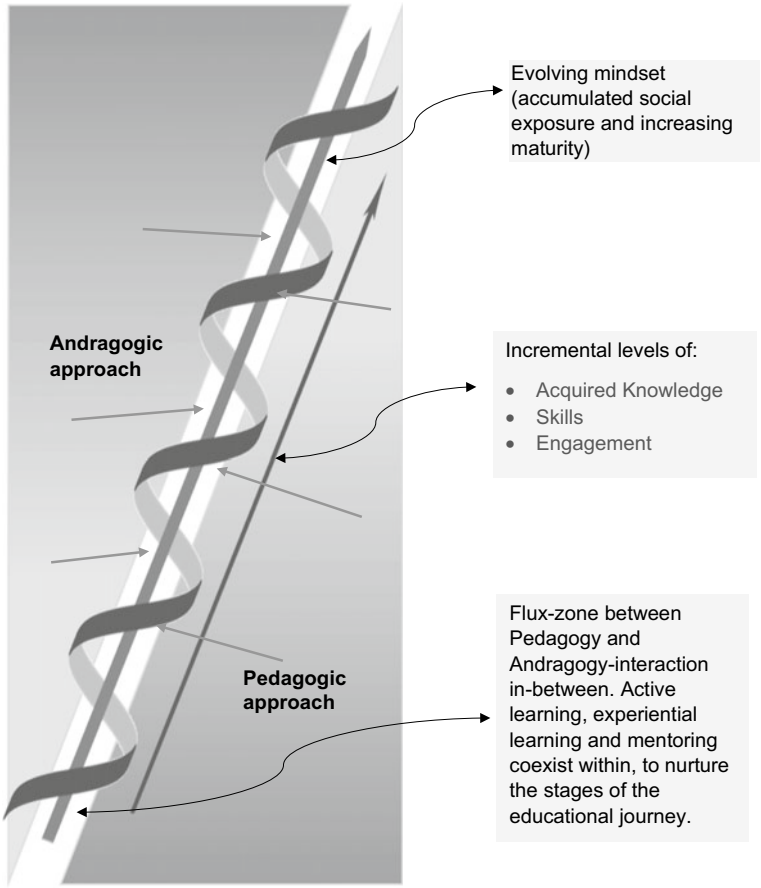

Fig. 1 The Pedagogy-Andragogy shared approach model for entrepreneurship education

It is key to clarify that the slimming of the right side does not imply the disappearance of pedagogy, just as the slimmer left side does not mean the non-existence of andragogy. In turn, the model proposes that both approaches fluidly coexist as required throughout the journey. From a practical perspective, the process will always require information-based pedagogical strategies to attend to specific instances. Yet, as the student

journey progresses, these instances should be scantier and short-lived due to acquired knowledge and increased autonomy.

The ascending spiral, located between andragogy and pedagogy represents a progressive accumulation of life-shaping events. Although the higher education newcomer requires foundational knowledge, the diversified profile within this population implies various understanding levels and differentiated movements along the educational journey. Along the highly contextual journey, the student can self-assess and choose to iterate the process at any given point, to ensure proper understanding before moving on to more complex set-ups. The model also depicts the spiral revolving around the mindset and increased socialisation, while knowledge, engagement and skills escalate.

This spiral is positioned within the flux-zone where pedagogy and andragogy meet and complement each other while providing for the student's needs. The flux-zone is the ever-present in-between zone, where educational strategies associated to active learning, experiential learning and mentoring pave the way to further the academic journey. Knowledge and experience combine to promote an increased sense of ownership, personal growth, growing confidence and maturity. Furthermore, the combination serves to ease the student towards incursions into social set-ups, handling feedback from real-life stakeholders, and making "enduring choices" (Hägg & Kurczewska, 2018, p. 3).

A clarifying note regarding the model presented is that it does not refer to the concept of odigogy proposed by Hägg and Kurczewska (2020). Odigogy relates to a guided teaching/learning approach for emerging adults in higher education, which addresses individual proficiency levels, student–teacher content co-creation, tailored instructional design and constant guidance throughout the academic journey. The Pedagogy-Andragogy Shared Approach Model for Entrepreneurship Education shows the flux-zone as a place for interactivity where experience and modelling influence the mindset by way of knowledge contextualization and skill-testing. However, the model does not address the specifics of tailoring the academic journey according to individual proficiency levels or the shared responsibility of teacher–student instructional design co-creation.

The case of Diana (pseudonym) (G. Rodriguez, personal communication, June 18, 2021) serves to illustrate the applicability of the model proposed. Diana is a 21-years-old, fourth-year undergraduate biology student enrolled in an accredited higher education institution in the.

Caribbean. At age 19, she identified a need and an opportunity for a business venture. Although she was already a second-year student, her incursion into a different academic field proved highly intimidating.

Having no previous knowledge on the subject, she enrolled in an introductory entrepreneurship course at her institution. The course's learning product required her to prepare a business plan, and it seemed daunting. She felt unprepared. Therefore, her journey as an entrepreneurship student started with basic knowledge dictation (information-based approach) to become comfortable with the terminology, concepts and course contents. Although the educator applied active learning strategies, the highly structured constructs of the course and program, did not allow for content tailoring and personalised guidance beyond the required feedback within the class. Diana decided to take a second course, during which she started to feel more at ease with the subject matter. Her sense of empowerment and engagement escalated during the course as her business idea became the group project's focus.

Although there was no formal accompaniment, the interactivity among the group and the feedback received provided enough guidance to complete the project. The team created a prototype which she evolved, on her own, into the webpage for her online shop. Parallel to launching her business, *Godly Closets*, she adopted a hands-on attitude, recognised additional need and identified training opportunities through external sources. Feeling more mature and confident, she enrolled in her third course on entrepreneurship, and accessed mentorship. The course professor provided said mentorship as part of the class. Although Diana does not have an official mentor, the bond created with her professor transcended the classroom, and occasional counselling is still ongoing. Currently, her business is in operation.

This case shows how the shared approach supplied Diana with cumulative life-shaping events, starting with the teacher-led acquisition of essential knowledge and the occasional need to revert to that approach, followed by growing instructional clarity and increased skills and engagement. Along the way, Diana revisited concepts and iterated as required to advance and achieve her goals. Going back to review before pushing forward became an ongoing exercise, along with active engagement and setting herself within real-life scenarios. The disposition to learn, receive feedback, launch her web shop, and to continue her journey, attest to the evolving mindset and increased maturity characteristic of the andragogic assumptions in adult education. Although each journey is unique,

the model proposed illustrates how entrepreneurship education benefits from the pedagogy–andragogy binomial and the interactivity in-between.

6 Conclusion

As higher education and entrepreneurship education have adapted to serve the incoming population, the interplay among pedagogy, andragogy, and the interactions in-between, have given way to a layered journey for education in entrepreneurship. The student population, inclusive of the emergent adults and adults alike, navigates the experience capitalising from a diversified array of educational strategies, practical set-ups and mentoring.

To that effect, this chapter discussed the higher education newcomer's profile and ways in which the process mobilises towards competency development. It also gave additional attention to the practice of teaching entrepreneurship by relying on active learning, experiential learning, mindset development and mentoring. The case study presented provided a reference to show how the proposed model applies to students in entrepreneurship education. It also showcased the flux-zone as the area where both approaches benefit from interactivity among diverse educational strategies. As a collective, these components nurture the student entrepreneur and enrich the experience resulting in increased maturity and independent decision-making based on defined beliefs, identity and social relations (Baxter Magolda, 2008; McNally et al., 2019).

As learning is not a spectator sport (Chickering & Gamson, 1987), it takes effort, and education in entrepreneurship relies on fostering the entrepreneurial intention to accomplish results. Yet, regardless of the efforts to offer pertinent curricula, real-life scenarios and guidance, the process itself is highly individual and contextual. Moreover, even though a basic configuration of the educational journey in entrepreneurship has been described, there is no specific method to determine, with surgical precision, what works for each individual.

Nonetheless, regardless of the age group, students converge in the search of a pathway towards economic independence, wealth (De Jonghe, 2014; Wrenn & Wrenn, 2009) and personal achievement through an education that makes sense. Entrepreneurship education is a journey with a purpose: to shape individuals who can identify opportunities and foresee possibilities that the world has to offer (Kouakou et al., 2019; Reed &

Stoltz, 2011). The call to action aims to transcend by bridging the theory into practice and taking academia into the real world.

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