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Integrating work placements into entrepreneurial education: A student perspective

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Background: Effective teaching methods are essential for equipping students with entrepreneurial skills. While higher education institutions and educators aim to foster innovative entrepreneurs, the effectiveness of current teaching methods and co-curricular activities in achieving this remains uncertain.

Aim: This study investigates students' perspectives on incorporating work placements into entrepreneurial education (EE). It also explores their views on the effectiveness of teaching methods and co-curricular activities within this context.

Setting: The research focusses on higher education students enrolled in programmes with an entrepreneurial component.

Methods: A structured questionnaire was administered to 105 higher education students to evaluate their perspectives on work placements, teaching methods and co-curricular activities in EE. Data were analysed using SPSS, which included demographic statistics and statistical analyses comprising one-sample *t*-tests and paired-sample tests.

Results: Students showed a preference for innovative teaching methods over traditional approaches. They highly valued job shadowing, considering it effective as both a teaching method and a co-curricular activity. However, students expressed a preference for work placements to be included as co-curricular activities rather than formal teaching methods.

Conclusion: The findings underscore the importance of integrating practical and experiential learning methods to align with student preferences and enhance the quality of EE.

Contribution: This study offers actionable insights into student preferences, advocating for a shift towards experiential learning. By aligning teaching strategies with these preferences, higher education institutions can create more impactful EE environments.

Keywords: entrepreneurship; entrepreneurial education; teaching and learning methods; co-curricular activities; work placements; experiential learning; student-centred learning; South Africa.

Introduction

Entrepreneurship is a well-known contributor to the overall economic growth and gross domestic product (GDP) of countries globally (Steenkamp, Van der Merwe & Athayde 2011). With the South African youth unemployment rate currently sitting at 44.3% in Quarter 4 of 2023 (Statistics South Africa 2024), entrepreneurial education (EE) can be a major contributor to solving the high youth unemployment rate. Several scholars (Ipate & Pârvu 2014; Soriano & Castrogiovanni 2012) have reported that prior EE has a positive impact on business performance, and it can decrease the degree of uncertainty relating to starting a business (Othman & Nasrudin 2016). The purpose of EE is for students to acquire the knowledge and experience that will enable them to identify and exploit business opportunities, offer innovative solutions that can solve societal needs and develop an entrepreneurial mindset (Hägg & Gabrielsson 2020), leading to self-employment and job creation (Nieman & Nieuwenhuizenm 2014; Sagar et al. 2023).

Entrepreneurial education can take several forms, in essence, andragogical or pedagogical methods (Hägg & Kurczewska 2020). Andragogical is student led with a teacher as an instructor, which is more commonly used among adults who have work experience, as opposed to pedagogical that is teacher led and more commonly used among young adults who have very limited work experience. Research has indicated that tertiary EE requires an experience-based pedagogical approach (Hägg & Kurczewska 2020; Jones 2019; Neck & Corbett 2018). Neck and Corbett (2018) argue that EE can be developed through five pedagogies, namely (1) the practice of play, (2) the practice of empathy,

(3) the practice of creation, (4) the practice of experimentation and (5) the practice of reflection. Using pedagogical methods can include several experiential approaches aimed at developing entrepreneurial skills and an entrepreneurial mindset (Bell & Bell 2020). One such approach to equip students with the necessary practical knowledge and skills to pursue entrepreneurial endeavours is the adoption of work-integrated learning (WIL). As a pedagogy, WIL programmes involve the purposeful placement of students in a real-world environment, which requires an interaction between the student, educator and the organisation. This interaction is the distinguishing factor between the WIL pedagogy and other experiential learning pedagogies because of real-world engagement (Eisenstein & Raz 2021). Pretti et al. (2020) examined the role that WIL experiences had on students' entrepreneurialism, the authors found that overall WIL experience positively influenced students' confidence and entrepreneurial spirit. The mentorship received from the university and the organisation encouraged their entrepreneurial mindset. Several benefits have been associated with WIL to foster entrepreneurship, such as entrepreneurial skills, innovative thinking, problem solving (Jackson, Shan & Meek 2022; Jackson & Wilton 2016), involvement and autonomy (Jackson et al. 2022). Therefore, WIL has the potential to foster entrepreneurship in those who wish to pursue it and encourage students to pursue entrepreneurial careers who have not considered it as a career choice before (Pretti et al. 2020). Despite the potential benefits of experiential pedagogy in developing entrepreneurial skills and mindsets (Bell & Bell 2020), many higher education institutions have yet to effectively implement such methods. Consequently, the present study endeavours to address this gap by elucidating student perspectives regarding the integration of work placements aimed at enhancing their preparedness for future entrepreneurial endeavours.

Literature review

The state of entrepreneurship in South Africa

Addressing social and economic challenges is an urgent and pressing priority in South Africa. Prior to the coronavirus disease 2019 (COVID-19) pandemic, the overall unemployment rate in South Africa had risen by 1.4% from 2018 to reach 29% in 2019 (Statistics South Africa 2019). The impact of COVID-19 further exacerbated economic hardships, particularly in terms of unemployment. A troublesome statistic revealed that prior to the national lockdown, 5.2% of individuals reported having no income; however, 6 weeks into the lockdown, this figure skyrocketed to 15.4% (Statistics South Africa 2020). Despite it being a few years since COVID-19, South Africa's unemployment rate remains a significant concern. Moreover, the most susceptible group in South Africa comprises individuals classified as youth, falling within the age bracket of 15–34 years old. Currently, the unemployment rate among this demographic stands at 44.3% in Quarter 4 of 2023 (Statistics South Africa 2024). Additionally, there has been a significant rise in the number of unemployed graduates over the span of a decade, escalating from 5.5% in 2013 to 10.6% in 2023 (Statistics South Africa 2023). While this figure remains relatively high, it is noteworthy that the unemployment rate among graduates is still lower compared to individuals with alternative educational qualifications. This underscores the pivotal role of education in providing young individuals with opportunities for meaningful employment (Statistics South Africa 2019).

Additionally, as per a 2022 report from the Global Entrepreneurship Monitor (GEM) in South Africa, the high rate of youth unemployment presents a troubling statistic, particularly because half of the country's population falls under the age of 24 (Bowmaker-Falconer & Meyer 2022). The authors of the GEM report also observed that a majority of school leavers opt to enter the workforce directly without pursuing higher education. Moreover, a GEM report from 2019 highlighted concerns regarding South Africa's education system, noting that the calibre of education provided are significant contributor to the low levels of early-stage entrepreneurial activity (Bowmaker-Falconer & Herrington 2019). However, a positive note is that South Africa scores relatively high in terms of EE at the post-school level with 4.46%, compared to other African countries, scoring 3.87%. Yet only 15% of adults are involved in entrepreneurial activities within the first stage of higher education, and 19.1% in the second stage. Additionally, the total early-stage entrepreneurial rate (TEA), which is individuals starting or currently running a new business, has increased to from 3.4% in 2001 to 8% in 2023. However, 4.9% of businesses closed down in 2022 across the South African adult population. The main reasons for this included access to finance (25.2%); the coronavirus (24.7%); unprofitable business (24.2%) and personal reasons (14.4%). Accessing finance remains a challenge year after year for new and nascent entrepreneurs (Bowmaker-Falconer & Meyer 2022), calling upon higher education institutions to act through the entrepreneurship curriculum.

Entrepreneurial education

Over time, EE has gained considerable attention as a catalyst for driving societal transformation. These transformations span various spheres including social, economic and political domains, acting as a unifying force that promotes individual excellence, societal cohesion and national advancement (Gautam & Singh 2015; Teles Amaral, Nieuwenhuizen & Schachtebeck 2024). Scholars have also highlighted the potential of entrepreneurship in addressing societal challenges and fostering economic growth within the respective contexts (Carree et al. 2002; Kritikos 2014). Furthermore, EE serves to acquaint students with the fundamental principles that underpin entrepreneurship, motivating them to pursue entrepreneurial ventures in the future (Mani 2018). Larsen (2022) argues that EE plays a critical role in the entrepreneurial mindset of individuals. The author conceptualises entrepreneurial mindset in three ways: (1) the mindset to think like an entrepreneur, (2) the personal attitude towards entrepreneurship and (3) the capability of the individual with regards to skills and competencies

to act entrepreneurial. Nonetheless, a significant barrier exists as many individuals are reluctant to embark on entrepreneurial paths because of perceived risks and uncertainties (Liesch, Welch & Buckley 2011; Petridou, Sarri & Kyrgidou 2009; Sharma & Madan 2013). Additionally, evaluating the effectiveness of EE received by students poses a notable challenge (Fatoki 2014). While the initial emphasis was on the establishment and management of organisations, the focus has shifted in recent decades to include entrepreneurial skills, attitudes and behaviours (Krueger 2015; Mwasalwiba 2010). Entrepreneurial education has evolved to a point where it encompasses students across various disciplines and educational levels who require the development of these competencies. Educational institutions across the world have devised and implemented entrepreneurial programmes to equip students to confront hurdles, initiate their business ventures and devise innovative solutions that will assist in combatting numerous social and economic issues (Jardim, Bártolo & Pinho 2021).

Student-centred learning in entrepreneurial education

Zielinski (2016) and Abualhaija (2019) mention that student-centred learning can be considered synonymous with constructivism. The concept of constructivism states that learning is based on the ability of an individual to construct knowledge rather than passively absorb it (Richardson 2003). Constructivism, or student-centred learning, is an important process to understand as it allows students to build their own entrepreneurial knowledge. Furthermore, it allows students to engage in a transformative process, whereby they are able to take initiative and gain practical experience through their learning (Sioukas 2022). Traditionally, teacher-centred pedagogy emphasises the transmission of theoretical knowledge from the instructor to the student. The approach is focussed on the pre-defined curriculum and uses the instructor as the primary source of knowledge. On the contrary, a student-centred approach aims to empower the students to construct their own entrepreneurial understanding by using real-world experiences that allows for the fostering of deeper learning outcomes (Neck & Greene 2011; Politis 2005).

Teaching methods for entrepreneurial education

Over the years, scholars have identified two distinct instructional approaches in EE: the traditional approach, which involves lectures and seminars, and the non-traditional (innovative) approach, characterised by hands-on, action-oriented teaching and learning methods aimed at enhancing students' creativity and critical-thinking skills (Mwasalwiba 2010; Tasnim & Yahya 2013). These innovative methods may include computer simulations or practical experiences within established organisations to develop students' decision-making abilities (Balan 2014; Solomon 2007). Globally, universities have introduced a variety of entrepreneurship programmes and courses (Chahal, Shoukat & Ayoubi 2023); however, Maaravi et al. (2021) argue there are two types of entrepreneurial offerings: (1) programmes that help students to become entrepreneurial and creative and (2) programmes that aim to create entrepreneurs. This can relate to the two distinct instructional approaches, namely the traditional approach that relates to developing students to become more entrepreneurial and the innovative approach aimed at creating entrepreneurs. These traditional methods primarily prepare students to work for entrepreneurs rather than empowering them to become entrepreneurs themselves. To address this challenge effectively, the traditional approach should be adapted to incorporate practical experiences, equipping students with both essential knowledge and skills (Fatoki 2014).

According to Prince and Felder (2006), traditional methods are regarded as being deductive in nature. This implies that lecturers present the basic entrepreneurial concepts and principles, which students will grapple with and then eventually learn this entrepreneurial terminology. Typical traditional entrepreneurial learning approaches include aspects such as lectures, exercises and creating business plans (Tasnim 2012). Bennett (2006) suggests that traditional methods do not activate the entrepreneurial spirit and are considered to be ineffective in venture initiation and development. Contrary to this, the innovative approaches are considered to be inductive in nature and require that students discuss problem-thinking-based questions. This approach focusses on active and collaborative learning approaches, where lecturers are not required to examine but rather to allow students to focus on self-knowledge, implying that students are more involved in the learning process (Bennett 2006; Kong 2021; Prince 2004). Melo et al. (2022) examined student preferences for methods to assess experiential learning, reporting that students prefer to develop creative thinking and realistic skills that can be transferred to the real world. However, work placements were not included, despite it being regarded as an experiential learning method. The need for innovative approaches has created immense pressure for universities globally to reform EE delivery methods, as traditional approaches are perceived as inadequate in fostering entrepreneurship effectively. One such way is the inclusion of student involvement in the curriculum design to ensure that the most relevant skills are developed (Amao-Taiwo 2021). Therefore, this study aims to investigate students' perspectives of work placements within the EE.

Co-curricular activities for entrepreneurial education

In addition to the instructional approaches identified co-curricular activities have become an integral part of EE. These activities are learning initiatives that happen outside the lecture room (Morris et al. 2013). These activities are usually experiential in nature where students are offered the opportunity to apply their theoretical knowledge (Kolb 1984). This includes, for example, networking, mentoring and coaching opportunities, competitions and contests,

incubation hubs and financial support for starting a business (Küttim et al. 2014; Morris, Shirokova & Tsukanova 2017). Some higher education institutions have introduced industry partnerships whereby students complete a project with an allocated organisation. The students are presented with an organisational problem and are required to present their solution to the management team of the allocated organisation (Mandel & Noyes 2016). In addition, access to knowledge and resources can increase the probability of creating future entrepreneurs. For example, students can share their business ideas with institutional and industry experts, which can help them shape their ideas and turn them into feasible opportunities (Scillitoe & Chakrabarti 2010; Souitaris, Zerbinati & Al-Laham 2007). Guerrero, Urbano and Gajón (2017) conducted a study on the role of the university's business incubators during the incubation stages. The results show that several co-curricular activities such as workshops/networking opportunities, contact points with potential investors, business plan workshops and contests, contact points for entrepreneurial issuess and mentoring and coaching initiatives can shape and increase the intention of students to become future entrepreneurs.

In addition to co-curricular activities such as mentoring, networking and incubation hubs, work placements have emerged as a crucial yet underexplored component in EE. While some entrepreneurship programmes aim to help students become entrepreneurial, others are designed to create entrepreneurs (Fayolle & Gailly 2008). The goals of the former are mainly to help students become more creative (Neck & Greene 2011), to increase their entrepreneurial self-efficacy (Newman et al. 2018) and to encourage them to take action and create value for others (Bruyat & Julien 2001). The latter, on the contrary, focusses on increasing students' entrepreneurial intentions (Bae et al. 2014), teaching them entrepreneurial know-how and skills and eventually helping them to become entrepreneurs and develop new ventures (Nabi et al. 2017) (Maaravi et al. 2021). Work placement initiatives often focus more on creating employable graduates, rather than creating and developing entrepreneurs (Björck 2021; Helyer & Lee 2014). Yet, involving students in real-world environments through internships and work placements can be a valuable experiential learning experience (Zamani & Mohammadi 2018). Maaravi et al. (2021) found that internships within start-ups can enhance students' awareness about entrepreneurship as a career path and develop their entrepreneurial mindsets and capabilities. Given the growing recognition of experiential learning in EE, there is a need to integrate work placements within the entrepreneurial curriculum.

Methodology

The main research question of this study is: How do students perceive the inclusion of work placements into EE? To guide our investigation, we will also explore the two secondary questions: (1) What are students' perspectives on the teaching and learning methods used in EE? (2) What are students' perspectives on the co-curricular activities used in EE? The current study employs a deductive research approach within the positivist paradigm. The research strategy employed begins by using established theories and general principles surrounding EE. Furthermore, positivism emphasises the objective nature of reality and the acquisition of knowledge through the use of scientific methods (Du Plooy-Cilliers, Davis & Bezuidenhout 2021). The study further employed the quantitative research design through the use of an adapted questionnaire. The quantitative research approach was deemed satisfactory as the purpose of the study was to empirically determine the students' perspectives of work placements in EE.

The sample consists of students completing an entrepreneurship qualification or completing an entrepreneurship module(s) in their current qualification at a particular private higher education institution, in order to understand the student's perspective on the possibility of work placements during their entrepreneurship studies. Blumberg, Cooper and Schindler (2014) suggest a minimum sample size that is at least five times the number of items in the instrument. In the current study, the instrument comprises 15 items, thereby setting the minimum sample size at 75 responses. The inclusion criteria of the study were: (1) respondents could be of any race, gender or age; (2) the respondents must have studied an entrepreneurial qualification or have had an entrepreneurial module(s) in their current qualification and (3) must have studied at the respective private higher education institution. However, including students from a private institution limits the generalisability of the findings to wider educational settings. As a result, the study's conclusions may not be easily transferable to public institutions or other private institutions with differing frameworks. The exclusion criteria of the study were as follows: (1) respondents who had no exposure to EE and (2) did not study at the respective private institution. Owing to the efficiency of the data collection, the questionnaire was self-administered online by means of Google Forms. The link to the questionnaire was sent to the cohort of students who had met the inclusion criteria of the study. A total of 105 questionnaires were completed.

The adapted measuring instrument contained two sections. Section A contained four closed-ended questions and one open-ended question. The closed-ended questions elicited information from the respondents in relation to age; registered qualification; employment status and intention of starting their own business. If respondents indicated 'no' to the intention of starting their own business, the open-ended question probed them to describe if they had thought of starting their own business. Section B consisted of a 7-point Likert and contained questions on (1) the preferred teaching and learning methods that students believe are appropriate for EE and (2) the co-curricular activities that students believe are needed within EE. The questionnaire was adapted from the instruments used in studies by Küttim et al. (2014) and Pech, Řehoř and Slabová (2021), both of which demonstrated a high level of reliability ($\alpha > 0.7$). To adapt the instrument to the specific context of the study, some modifications were made to the phrasing of questions.

This ensured that the questions were phrased in a way that would be understood by respondents in South Africa. After the modifications were made, the instrument still demonstrated a high level of reliability as indicated by a Cronbach alpha of 0.957 ($\alpha > 0.9$). The data that were analysed by means of SPSS (Version 29) and the data analysis techniques that were employed in the study included demographic statistics and statistical analysis that comprised of one-sample *t*-tests and paired-sample tests. A one-sample *t*-test was used to assess how students perceive the inclusion of co-curricular activities in EE, specifically focussing on whether their perceptions significantly deviated from a hypothesised value, such as the neutral position (a score of 4 on the 7-point Likert scale). To further explore students' perspectives on work placements as a teaching method or a co-curricular activity, paired-sample *t*-tests were employed. This allowed the researchers to determine whether entrepreneurial curricula should consider work placements as part of the teaching and learning approach being utilised or if it should be employed as a co-curricular activity.

Ethical considerations

The study adhered to the ethical guidelines established by the relevant institution's ethics committee. Ethical clearance was obtained from the Independent Institute of Education with reference number R.0002034 [REC]. The study ensured that a consent form was made available when the participants accessed the Google Form containing the questionnaire. The consent form made respondents aware of aspects such as privacy, confidentiality and consent. The purpose and intentions of the research study were explained, with the respondents reserving the option to withdraw at any time. The researchers ensured that no incentive was provided for the completion of the questionnaire.

Results and discussion

The main purpose of the study was to explore students' perspectives on work placements in EE, focussing on the preferred teaching and learning methods and co-curricular activities. The statistics that are provided in this section include demographic statistics and statistical analysis that comprises of one-sample *t*-tests and paired-sample tests.

Demographic statistics

Table 1 illustrates the demographic statistics of the respondents. From Table 1, it is evident that from the 105 responses, 101 (96.2%) of respondents were aged between 18 years and 24 years, with only 4 (3.8%) of respondents between the ages of 25–34 years. It is therefore clear that the majority of the respondents fell between the ages of 18–24 years, which was valid given that most of the students were undergraduate students studying towards their degree. Furthermore, Table 1 also shows the employment status of the sample of the study, with 3 (2.9%) of the respondents working full time and studying at the same time. Next, 28 (26.7%) of the respondents are working part time and studying, 11 (10.5%) of the respondents are self-employed and studying, while 63 (60%) of the respondents are students only and therefore were not working during their studies. Lastly, the students were requested to indicate their intention towards starting a business should they not currently be self-employed. Considering that not all students are self-employed as indicated under the employment status section, only 94 students answered this question. From the sample of 94 responses, 71 (75.5%) of respondents agreed that although they were not self-employed, and they had the intention to start their own business. However, 23 (24.5%) of respondents did not share these sentiments, noting that they were not currently self-employed and did not have the intention to start their own business either. Studies have revealed that there are numerous reasons that affect the entrepreneurial intention of a student (Shahzad et al. 2021; Sharaf, El-Gharbawy & Ragheb 2018). Entrepreneurial intention is influenced by personality traits that influence the career path that an individual chooses to pursue (Tanveer et al. 2013) as well as the family and peer support received (Lingappa, Shah & Mathew 2020). Students who are fortunate to have the financial and moral support of their families tend to have more intentions of starting businesses (Shahzad et al. 2021). Another aspect that influences entrepreneurial intention is institutional support, which allows students to pursue their professional desires (Engle, Schlaegel & Dimitriadi 2011). However, the study did not investigate the underlying reasons why some students lacked the intention to start their own business, presenting an opportunity for future research to explore these factors in greater depth. Upon further analysis, it became evident that the students who responded affirmatively to the question regarding their intention to start a business were not exclusively those enrolled in entrepreneurial qualifications. Instead, this group also comprised students from a variety of disciplines, including Bachelor of Commerce in Law, Bachelor of Commerce in Marketing, Bachelor of Commerce in Finance and Accounting and Bachelor of Commerce Honours in Management.

TABLE 1: Demographic statistics.

Category	Frequency (*n*)	%
Age distribution (years)		
18–24	101	96.2
25–34	4	3.8
Total	105	100.0
Employment status		
Working full time and studying	3	2.9
Working part time and studying	28	26.7
Self-employed and studying	11	10.5
Student only	63	60.0
Total	105	100.0
Intention to start a business		
Yes	71	75.5
No	23	24.5
Total	94	100.0

Statistical analysis

Teaching and learning methods in the entrepreneurial education curriculum

Prince and Felder (2006) note EE incorporates traditional methods of pedagogy and is regarded as being deductive in nature. Lecturers will present the entrepreneurial concepts to students who will then learn this entrepreneurial terminology. However, according to Rodrigues (2023), it is also vital to incorporate real work application to theoretical concepts that allow students to develop critical skills, such as communication skills, critical-thinking abilities and teamwork. For the purposes of this study, we have categorised the teaching and learning methods into two categories: (1) traditional methods (tasks and essays, closed-book written assessments and exams and case studies) and (2) innovative methods (business simulations, jab shadowing and work placements).

To better understand the perspectives of the student's preferred teaching and learning methods, it was important to explore various options related to traditional and innovative teaching and learning methods. The results indicate that all students rated teaching and learning methods highly, with the means ranging from 4.45 and 6.44, which is all above the neutral point. The teaching and learning methods included (1) tasks and essays for the theoretical content (M = 5.04); (2) closed-book written tests and exams for the theoretical content (M = 4.45); (3) case studies on entrepreneurial businesses (M = 5.83); (4) business simulations on how to run a business (M = 6.44); (5) job shadowing at an entrepreneurial business for 1 week (M = 6.29) and (6) work placement at an entrepreneurial business for 6 months (6.10). Business simulations on how to run a business were rated as the most preferred teaching and learning method, while closed-book written tests and exams for theoretical content were rated as the least preferred method. Business simulations are seen to enhance a student's attitude and intention towards entrepreneurial activities (Zulfiqar et al. 2019) as well as develop and enhance their higher-order thinking skills (Huang et al. 2023), while traditional assessments are seen to hinder a student's motivation for entrepreneurship because of a lack of real-world application.

In addition to identifying which teaching and learning methods students prefer, we also intend to explore whether students prefer traditional teaching and learning methods (tasks and essays, written tests and exams and case studies) or innovative teaching and learning methods (business simulations, job shadowing and work placements). A paired-sample t-test was conducted. Table 2 indicates the correlation of the paired items.

According to Pallant (2020), the correlation coefficient is a measure of the strength and direction of the linear direction that occurs between two variables. According to the findings, the correlation coefficient of 0.611 indicates that there is a large correlation between the traditional and innovative teaching and learning methods, which implies that the students' perceptions of traditional methods are also strongly related to their perceptions of innovative methods. Further to this, the p-value of 0.000 ($p < 0.05$) suggests that this correlation is statistically significant. This finding further supports the idea that students believe integrating traditional and innovative methods will enhance the EE they receive. Rahman, Basher and Ramadani (2023) note that it is imperative that entrepreneurial curricula incorporate a balanced approach, ensuring that both traditional and innovative methods are utilised, which will ensure that students gain a well-rounded education. The finding of the study is also in agreement with Sondakh and Rajah (2016) who posit that formal methods should be combined with interactive methods to enhance students' entrepreneurial knowledge and skills.

TABLE 2: Paired samples correlations – Teaching and learning methods.

Comparison	Correlation	Significance	
		One-sided probability	Two-sided probability
Traditional methods and innovative methods	0.611	0.000	0.000

The results of the paired sample tests are presented in Table 3. It is important to note that on the 7-point Likert scale, a rating of five indicates that students slightly agree, a rating of six indicates that they agree and a rating of seven indicates that they strongly agree with the items.

It is also important to note, however, that although students have a preference towards innovative methods, they do not prefer that traditional methods be disregarded, indicating that both traditional and innovative methods should be incorporated simultaneously. Further, interpreting the standard error mean indicates that the sample means are reliable estimates of the population means (Pallant 2020). Next, the effect size of the paired sample was measured as seen in Table 4.

Cohen's d (1988) is used to interpret different effect sizes and categorises the effect sizes as the following: small effect (0.01), medium effect (0.06) and large effect (0.14). When analysing the findings in Table 4, it is clear that an effect size of 1.1455 is regarded as a large effect size. This implies that along with the difference between students' perceptions of traditional and innovative teaching and learning methods being statistically significant, it is also practically meaningful. Furthermore, this suggests that students identify that there is value in incorporating innovative methods and believe that this could effectively enhance their EE. This finding agrees with the study conducted by Rodrigues (2023), which found that students find value in engaging with collaborative pedagogical methods as part of EE.

Co-curricular activities in the entrepreneurial education curriculum

In addition to gaining the perspective of students' preferred teaching and learning methods, we also examined the co-curricular activities that students would prefer within the entrepreneurial curriculum. A one-sample T-test was

TABLE 3: Paired samples statistics – Teaching and learning methods.

Method	Mean (M)	SD	SE mean
Traditional methods	5.1048	1.30279	0.12714
Innovative method	6.2730	1.29329	0.12621

SD, standard deviation; SE mean, standard error mean.

TABLE 4: Paired-sample effect sizes – Teaching and learning methods.

Comparison	Standardiser†
Traditional methods – Innovative method: Cohen's *d*	1.1455

Note: Cohen's *d* uses the sample standard deviation of the mean difference.
†,The denominator used in estimating the effect sizes.

conducted, and the results indicate that all the students rated the co-curricular activities highly, with the means ranging from 5.94 to 6.37, which is all above the neutral point. The co-curricular activities included: (1) workshops and networking opportunities with entrepreneurs (M = 6.32); (2) contact platforms with potential investors (M = 6.23); (3) business plan workshops and contests (M = 6.04); (4) mentoring and coaching programmes for future entrepreneurs (M = 6.37); (5) contact point for entrepreneurial issues that might be faced (M = 6.09); (6) technology and research resources (M = 6.02); (7) seed funding/financial support (M = 5.94); (8) job shadowing at an entrepreneurial business for 1 week (M = 6.29) and (9) work placement at an entrepreneurial business for 6 months (M = 6.30). Guerrero et al. (2017) reported similar findings whereby workshops and networking opportunities, contact points with potential investors, business plan workshops and contests, contact points for entrepreneurial issues, mentoring and coaching initiatives increase the probability that students will become potential future entrepreneurs. It is clear that mentoring and coaching programmes for future entrepreneurs were rated as the most preferred co-curricular activity with the highest mean. Several studies (Brinkley & Le Roux 2018; Küttim et al. 2014) also report a relatively high preference for coaching and mentoring as a co-curricular activity. Bauman and Lucy (2021) indicate that some universities have introduced mentorship programmes and have produced great successes from this initiative.

The least preferred co-curricular activity was seed funding or financial support with a mean of 5.94, yet it was still rated relatively high. A possible reason for this being rated as the least preferred co-curricular activity is because of the sample comprising of students from a private higher educational institution, thereby implying that they might not regard seed funding or financial support as a major challenge to starting a business. These findings are similar to the results of Küttim et al. (2014), who also report that seed funding or financial support was least preferred as a co-curricular activity in both efficiency and innovation-driven countries. Literature has also reported the value of a work-based approach to stimulate entrepreneurial behaviour, whereby educational institutions partner and collaborate with industry partners (McEwen et al. 2010; Walter, Parboteeah & Walter 2013). This offers students an opportunity to experience the real-life work environment (Toledano-O'Farrill 2017), for example through job shadowing or work placements.

The main purpose of the article was to gain students' perspectives on work placements in EE. Therefore, two items were added to the questionnaire under both teaching and learning methods and co-curricular activities, namely (1) job shadowing at an entrepreneurial business for 1 week and (2) work placement at an entrepreneurial business for 6 months. The reason for adding it under both was to determine if students would prefer this as a teaching method or rather as a co-curricular activity, in addition to the current teaching and learning methods. In order to determine this, we conducted a paired T-test. The correlation coefficient (Pair 1 = 0.643: Pair 2 = 0.795) indicates that a strong positive correlation exists between both pairs of the teaching and learning methods and the co-curricular activities. Furthermore, as seen in Table 5, the mean for job shadowing at an entrepreneurial business for 1 week is 0.000 and the p-value is 1.000 ($p > 0.05$), indicating that there is no significant difference between it being preferred as a teaching method or it being offered as a co-curricular activity. However, for a work placement at an entrepreneurial business for 6 months, the results indicate a mean of –0.210 and a p-value of 0.026 ($p < 0.05$), indicating that there is a small, but significant difference between it being preferred as a teaching method or a co-curricular activity. This implies that students prefer work placement at an entrepreneurial business for 6 months as a co-curricular activity rather than a teaching and learning method. This finding is interesting and could be attributed to the fact that students view a work placement as an opportunity for extensive practical experience that would inherently complement their studies rather than replace them.

As previously stated, Cohen's d value is used to interpret the effect size of this significant difference as presented in Table 6.

Table 6 shows that Cohen's d for job shadowing at an entrepreneurial business for 1 week is 1.160, which has a large effect size, yet it is not significant ($p > 0.05$). This implies that students equally prefer job shadowing at an entrepreneurial business for 1 week as either a teaching method or a co-curricular activity, offering an opportunity to implement this as a possible innovative teaching method within the entrepreneurial curriculum. Additionally, the effect size for work placement at a business for 6 months is 0.948, which is also considered a large effect size and is significant ($p < 0.05$). This means that students prefer work placement at a business for 6 months as a co-curricular activity instead of as a teaching method. These findings offer valuable contributions as they show that students are satisfied with the current teaching and learning methods implemented within the entrepreneurial curriculum but would prefer co-curricular activities that would complement the teaching and learning methods. This is in line with several authors (Scillitoe & Chakrabarti 2010; Souitaris et al. 2007) reporting that exposing students to external knowledge and resources can enhance their intention to become future entrepreneurs. Moreover, Mandel and Noyes (2016) reported that some institutions offer opportunities to students through corporate entrepreneurship whereby students are placed with an organisation to ideate and solve problems experienced by the

TABLE 5: Paired samples tests.

Paired samples test	Paired differences					*t*	*df*	Significance	
	Mean	Standard deviation	Standard error mean	95% confidence interval of the difference				One-sided probability	Two-sided probability
				Lower	Upper				
Pair 1: *Teaching method vs co-curricular activities*									
Job shadowing at an entrepreneurial business for 1 week	0.000	1.160	0.113	-0.225	0.225	0.000	104	0.500	1.000
Pair 2: *Teaching method vs co-curricular activities*									
Work placement at an entrepreneurial business for 6 months	-0.210	0.948	0.092	-0.393	-0.026	-2.266	104	0.013	0.026

df, degrees of freedom.

TABLE 6: Paired samples effect sizes.

Paired samples test	Standardiser†	Point estimate	95% confidence interval	
			Lower	Upper
Pair 1: *Teaching method vs co-curricular activities*				
Job shadowing at an entrepreneurial business for 1 week				
Cohen's *d*	1.160	0.000	-0.191	0.191
Pair 2: *Teaching method vs co-curricular activities*				
Work placement at an entrepreneurial business for 6 months				
Cohen's *d*	1.160	0.000	-0.191	0.191

Note: Cohen's *d* uses the sample standard deviation of the mean difference.
†, The denominator used in estimating the effect sizes.

organisations, after which the students have to present their findings and solutions to the organisation's management team.

Conclusions

Theoretical and practical contributions

Effective teaching and learning methods are essential for providing students with the knowledge and skills required to embark on entrepreneurial careers. However, there is currently a gap in the literature regarding the specific pedagogical methods and co-curricular activities that best support entrepreneurial skill development. This study therefore contributes to closing this gap by providing empirical insights into students' preferences for innovative learning methods over traditional methods. From a theoretical standpoint, the study reinforces experiential learning theories, which emphasise hands-on, experiential learning as critical for entrepreneurial skill development. The study identifies business simulations as a preferred method over traditional forms, such as closed-book assessments, highlighting the need to embed experiential principles more effectively into entrepreneurial curricula. While existing literature acknowledges the value of experiential learning and student involvement in curriculum design, there has been limited empirical evidence on student preferences regarding specific teaching methodologies. This study bridges this gap by outlining the methods that students perceive as most valuable during their entrepreneurial studies. The practical contributions made by the study include the fact that educational institutions can design more effective and engaging entrepreneurial qualifications by incorporating methods preferred by students, specifically business simulations. Job shadowing as a co-curricular activity can be more widely integrated into entrepreneurial qualifications. These insights address a key limitation in current pedagogical practices, namely the lack of structured, practical learning experiences within EE. Additionally, the research further highlights students' preference for work placements, offering a scalable solution for institutions to provide real-world exposure without overhauling existing curricula. In line with this, institutions could consider short internships with start-ups that would introduce students to the nature of entrepreneurship. This could be embedded into the curriculum, allowing students to gain practical experience while managing academic demands. The study's findings can further inform policymakers by promoting a shift towards more innovative teaching and learning methods that will better engage and equip students to pursue entrepreneurial careers. Moreover, if more institutions adopt flexible co-curricular work placements, this could standardise entrepreneurial placements, making them a recognised part of a programme. This would provide a structured pathway for students to gain entrepreneurial experience, which would therefore be similar to how internships are standard across other disciplines. Furthermore, many emerging economies struggle with youth unemployment; implementing these insights into EE could enhance job creation and economic growth, as students would be better prepared and more confident to venture into entrepreneurship. By addressing these gaps in the literature and current pedagogical practice, the research not only strengthens theoretical discussions on experiential learning but also provides a roadmap that institutions may utilise to improve EE in a way that aligns better with student and industry expectations.

Limitations and future research

The article has several limitations that should be taken into consideration. Firstly, the study sample includes students from a private higher education institution, thus the findings cannot be generalised to other institutions, such as public higher education institutions. This offers a future research opportunity to explore a broader range of educational settings to provide comparative insights and enhance the generalisability of the findings. Secondly, while the participating students have completed entrepreneurship modules, they are enrolled in a variety of degree programmes. As a result, not all students are pursuing an entrepreneurial qualification, which may influence their perspectives and responses regarding the EE they receive. Thirdly, the study only included the perspectives of students and not industry experts such as entrepreneurial business owners. This offers a future research opportunity, whereby future

studies can include the perspectives of industry experts (current business owners pursuing entrepreneurship) on teaching and learning methods and co-curricular activities that can shape and create future-ready entrepreneurs and increase the intention of students to start their own businesses. These findings can be compared to students' perspectives and considered in the curriculum design of entrepreneurship modules and qualifications. Future research could focus on measuring the hard and soft skills that students anticipate acquiring through job shadowing or work placements at entrepreneurial businesses. Fourthly, industry experts (current business owners pursuing entrepreneurship) could be consulted to provide insights into their expectations regarding student job shadowing and work placements, offering a comprehensive perspective on the alignment between EE curricula and industry needs.

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Authors' contributions

C.B. and D.T.A. conceived the research idea, developed the theoretical framework and conducted the computational and analytical work. They equally contributed to the design, implementation and interpretation of the results. The manuscript was written collaboratively by C.B. and D.T.A. with all authors contributing equally to the final version. Additionally, C.B. and D.T.A. were equally involved in directing and supervising the work.

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Data availability

The data that support the findings of this study are available from the corresponding author, C.B., upon reasonable request.

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