



Pedagogical Approaches for Delivering Entrepreneurship Development Programmes in Nigerian Polytechnics

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Abstract

Entrepreneurship Development Programmes (EDPs) were introduced in Nigerian polytechnics to nurture entrepreneurial competences among graduates in response to unemployment and entrepreneurial talent deficits. This study, based on survey data from 241 instructors across nine Northeast polytechnics, explores EDP teaching methods. Traditional lectures dominate but may not align with entrepreneurship EDP's practical orientation. Experiential methods like case studies and business plans are gaining prominence. However, site visits and excursions, projects, and simulations are underutilised. Involvement of local entrepreneurs and discussions could improve, and deeper integration of Entrepreneurship Development Centres (EDCs) is recommended, as well as realignment of the Supervised Industrial Work Experience Scheme (SIWES). Project-based learning and simulations remain untapped potential. Based on these findings, the study provides recommendations for more effective EDP delivery.

Keywords: *Entrepreneurship, Pedagogy, EDP Delivery Methods, Teaching Strategies, Nigerian Polytechnics.*

Introduction

Entrepreneurship education holds a central and indispensable role in preparing students to thrive in the ever-evolving and fiercely competitive business environment of the 21st century (Al-Lawati *et al.*, 2020; Mgbonyebi and Osamor, 2019; Yousaf *et al.*, 2021). Entrepreneurship, in its various forms, is widely acknowledged as a driving force for economic expansion, the creation of job opportunities, and the alleviation of poverty. Particularly within the context of Nigerian polytechnics, where the practical acquisition of skills and vocational training are held in high regard, the implementation of Entrepreneurship Development Programmes (EDPs) has assumed a position of growing importance (Agboola, 2021; Kolade *et al.*, 2021b). These programmes serve a dual purpose: to equip students with the practical skills required for entrepreneurship, and to nurture and cultivate an entrepreneurial mindset. The success of these programmes bears immense significance for the socio-economic advancement of Nigeria. This mindset encourages qualities such as innovation, creativity, and the pursuit of entrepreneurial endeavours.

The effectiveness of EDPs, however, hinges substantially upon the pedagogical methods employed in their delivery (Babatunde *et al.*, 2021). The selection of teaching techniques, instructional strategies, and the design of the curriculum holds a paramount role in shaping the educational experiences of the students involved. This study explores the pedagogical approaches utilised in the delivery of EDPs. What are the teaching methods and strategies used by teachers of entrepreneurship in delivering their practical lessons? The objective is to unravel the methods and strategies employed by educators in imparting entrepreneurial skills and knowledge to their students. Through this research, the author aims to contribute to the discourse on pedagogy and entrepreneurship education.

Highlight of the Literature

EDPs in Nigerian polytechnics are indispensable for equipping students with the skills and knowledge essential to navigate the ever-evolving and competitive business landscape of the 21st century (Jardim *et al.*, 2021; Mohamed and Ali, 2021). The efficacy of these programmes hinges significantly on the pedagogical approaches employed in their delivery. In this literature review, we delve into various teaching approaches used in delivering EDPs, aiming to shed light on their strengths, limitations, and contributions to entrepreneurial education.

Case Studies: Case studies are widely acknowledged as powerful tools for fostering experiential learning and critical thinking in entrepreneurship education. By immersing students in real or fictional entrepreneurial scenarios, case studies expose them to practical challenges, decision-making processes, and the challenges of the business and engineering world (Idris *et al.*, 2021). Research suggests that well-structured case studies stimulate discussions, encourage problem-solving, and facilitate the application of theoretical concepts to real-life situations (Zotov *et al.*, 2021).

Business Plans: Business plan development constitutes a fundamental aspect of entrepreneurship education. It encourages students to articulate their entrepreneurial ideas, formulate strategies, and anticipate challenges (Abd Ghani, 2021). Through this approach, students gain valuable insights into the practical aspects of initiating and managing a business venture (Ferrerias-Garcia *et al.*, 2021). Studies indicate that crafting business plans enhances students' business acumen, decision-making skills, and their ability to attract potential investors (Marques, 2021).

Lectures: While lectures are a commonly used instructional method, they have faced criticism in the context of entrepreneurship education (Ejeka, 2021). Lectures excel at conveying theoretical knowledge, but they may fall short in developing

practical skills and fostering entrepreneurial mindsets (Chukwuma-Nwuba, 2021). Research suggests that an overreliance on lectures may hinder students' ability to apply their knowledge and unleash their creativity in entrepreneurial pursuits (Anitsal and Anitsal, 2016). Nevertheless, lectures can still play a valuable role when integrated with experiential elements.

Guest Speaking Events by Entrepreneurs: Entrepreneurial guest speaking events offer students the opportunity to engage with accomplished entrepreneurs and glean insights from their real-world experiences. These events serve as sources of inspiration and motivation by providing tangible examples of entrepreneurship in action. Guest speakers can serve not only as role models but also as mentors, instilling the entrepreneurial spirit in students (Bliemel, 2013).

Feasibility Studies: Feasibility studies empower students to assess the viability of potential business ventures (Al-Ali, 2019). This approach encourages critical analysis, risk assessment, and the evaluation of market opportunities (Otahe, 2019). Through feasibility studies, students learn to make informed decisions and identify potential pitfalls before embarking on a business venture (El-Khasawneh, 2008).

Site Visits or Excursions: Site visits and excursions provide students with first-hand exposure to entrepreneurial environments, businesses, and industries (Adebayo, 2018). These experiences enhance students' comprehension of real-world business operations and challenges, effectively bridging the gap between theory and practice (Olukanni *et al.*, 2015). Further, they serve as sources of first-hand motivations for students to nurse entrepreneurial aspirations similar to what they witnessed in the industries (Okafor and Igbozuruike, 2020).

Handouts or Course Notes: Handouts and course notes serve as supplementary materials in entrepreneurship education, providing students with reference materials and structuring the learning process (Ajayi, 2018). While valuable as resources, they are most effective when integrated into interactive teaching methods (Abaho *et al.*, 2015).

Supervised Industrial Work Experience Scheme (SIWES): SIWES offers students the opportunity to acquire practical work experience in authentic organisations (Amoda and Alao, 2021). Although initially designed as a bridge to the world of work, SIWES can also expose students to entrepreneurial roles and foster essential employability skills (Onosele and Ejodamen, 2017). However, its alignment with entrepreneurship education goals may warrant further exploration (Usman and Tasmin, 2015).

Projects and Simulation: Project-based learning and simulations enable students to apply entrepreneurial concepts and strategies in a controlled, experiential setting (Dennis *et al.*, 2021). These approaches promote creative problem-solving and decision-making. Research suggests that simulations provide a safe space for students to experiment with entrepreneurship (Hindle, 2016).

Class Discussions: Class discussions foster active engagement and critical thinking among students. When facilitated effectively, discussions encourage the exchange of ideas, perspectives, and entrepreneurial insights (Wardana *et al.*, 2020). However, their effectiveness may vary depending on class size and facilitation techniques (Solomon, 2007).

Entrepreneurship Development Centres (EDCs): EDCs play a pivotal role in providing resources, mentorship, and networking opportunities for aspiring entrepreneurs (Azuka, 2018). These centres nurture an entrepreneurial culture on campus and facilitate the development of viable business ideas. They offer students the chance to interact with experts and fellow entrepreneurs, promoting collaborative learning (Peluala *et al.*, 2014).

In addition to the aforementioned approaches, other innovative methods, such as experiential learning through start-up incubators (Wang *et al.*, 2016), collaborative group projects (Raven, 2006), and exposure to emerging technologies (Kolade *et al.*, 2021a), are gaining prominence in entrepreneurship education. To maximise the impact of EDPs, educators must carefully select and combine teaching approaches that align with the programme's objectives, student needs, and the evolving entrepreneurial landscape. This diversity in pedagogical methods ensures a functional entrepreneurship education experience for students in Nigerian polytechnics.

Methodology

This is a quantitative survey study. The study population consisted of all academic staff teaching entrepreneurship-related courses from 9 polytechnics in the Northeast Nigeria (NBTE, 2014). Due to the inaccessibility of staff nominal roll, the population is considered infinite. Accordingly, a combination of Anusionwu's (1983) population estimation approach and Charan and Biswas's (2013, p. 122) sample size formula, a sample size of 384 was determined. The response rate 62.76% was achieved, giving rise a sample a sample of 241. The non-probability snowball sampling technique was utilised during the questionnaire administration. The questionnaire was a paper and pencil type with the items rated using Likert-type scale. The data thus garnered were analysed using descriptive statistical metrics in Excel®.

Results and Discussion

The researcher explored the instructional approaches employed by educators in teaching EDPs. The distribution of respondents by use of teaching methods in EDPs (Table 1) offer insights into the prevailing pedagogical practices. One striking observation is the predominant use of traditional lecture-based teaching, with an overwhelming 51.87% of respondents indicating its frequent use. While lectures are a conventional and convenient means of imparting information, they may not be optimally suited to the goals of entrepreneurship education, which extend beyond the acquisition of theoretical knowledge to include the development of practical skills and an entrepreneurial mindset. Consequently, an overreliance on lectures could potentially hinder students' ability to apply their knowledge effectively in real-world entrepreneurial scenarios. In contrast, case studies and business plan development emerge as relatively popular teaching methods, with 33.20% and 35.27% of respondents, respectively, highlighting their frequent use. Case studies involve the analysis of real or fictional scenarios to illustrate specific concepts, while business plans emphasise planning and executing entrepreneurial ventures. These methods are experiential and application-oriented, aligning more closely with the objectives of entrepreneurship education. However, it is essential to ensure that case studies are contextually relevant to the Nigerian business landscape, thus enhancing their effectiveness.

One notable limitation in the current pedagogical landscape is the infrequent use of experiential methods such as site visits, projects, and simulations. None of the respondents reported their frequent use. These methods provide students with hands-on experience and opportunities for practical learning, both of which are fundamental for entrepreneurship education. The absence of these experiential methods implies a missed opportunity to equip students with the practical skills and experiences necessary for

entrepreneurial success. Another noteworthy finding is the relatively low involvement of entrepreneurs as a teaching method, with only 7.47% of respondents indicating its frequent use. Involving entrepreneurs in the educational process can be highly beneficial, as they can share real-world experiences, challenges, and insights. Furthermore, entrepreneurial role models can inspire and motivate students to pursue entrepreneurial endeavours. However, the limited use of this method suggests an untapped potential for greater engagement with local entrepreneurs, potentially through guest lectures, mentoring programmes, or collabora-

tive projects. Also, discussions as a teaching method were reported as infrequent by 7.47% of respondents. While discussions can stimulate active student participation and critical thinking, conducting meaningful discussions in larger class settings may present challenges, including time constraints and diverse student backgrounds. Exploring alternative strategies, such as small group discussions or online platforms, could facilitate productive discussions and enhance the interactive dimension of entrepreneurship education.

Table 1. Distribution of Respondents by Use of Teaching Method

Teaching Methods	Frequency of Use									
	Very Frequent		Frequent		Sometimes		Rarely		Never	
	F	%	F	%	F	%	F	%	F	%
Case study	80	33.20	61	25.31	50	20.75	30	12.45	20	8.30
Business plan	85	35.27	75	31.12	10	4.15	55	22.82	16	6.64
Lectures	125	51.87	105	43.57	11	4.56	0	0.00	0	0.00
Entrepreneurs	18	7.47	11	4.56	20	8.30	91	37.76	101	41.91
Feasibility	0	0.00	0	0.00	11	4.56	125	51.87	105	43.57
Site visit	0	0.00	0	0.00	11	4.56	125	51.87	105	43.57
Handouts	120	49.79	105	43.57	11	4.56	3	1.24	2	0.83
SIWES ¹	241	100	0	0.00	0	0.00	0	0.00	0	0.00
Project	0	0.00	0	0.00	0	0.00	0	0.00	241	100
Simulation	0	0.00	0	0.00	0	0.00	0	0.00	241	100
Discussions	18	7.47	12	4.98	18	7.47	93	38.59	100	41.49
EDCs ²	40	16.60	32	13.28	40	16.60	65	26.97	64	26.56

¹SIWES = Students Industrial Work Experience Scheme; ²EDCs = Entrepreneurship Development Centres

Entrepreneurship Development Centres (EDCs) represent a promising resource, with 16.60% of respondents using them for entrepreneurship education. These centres have the potential to serve as hubs for fostering creativity, collaboration, and innovation among students. However, there is room for further maximising their utility by integrating them more comprehensively into entrepreneurship courses, providing students with hands-on entrepreneurial experiences, and promoting cross-disciplinary collaboration. Furthermore, the Supervised Industrial Work Experience Scheme (SIWES) emerges as the most frequently used method, with 100% of respondents indicating its use. It is crucial to note that SIWES was initially designed as a bridging mechanism between polytechnic programmes and the world of work, rather than as an entrepreneurship education method per se. While SIWES undoubtedly provides valuable practical experience, it may not fully align with the specific goals of entrepreneurship education, which encompass more than general workplace exposure. Lastly, the findings underscore the absence of project-based learning and simulation methods, with none of the respondents reporting their frequent use. These methods offer highly engaging and practical approaches to entrepreneurship education. Project-based learning encourages students to work on real-world projects, while simulation provides a controlled environment for entrepreneurial experimentation. Although their implementation may require additional support and resources, integrating these methods could significantly enhance the practicality and effectiveness of entrepreneurship education in Nigerian polytechnics.

In summary, the results emphasise the need to reassess the balance of teaching methods in entrepreneurship education. While traditional lectures retain their place, there is a clear opportunity to increase the incorporation of experiential methods, involve local entrepreneurs, maximise the potential of EDCs, and explore strategies to facilitate productive discussions. Addressing these

aspects can contribute to a more comprehensive and practical approach to entrepreneurship education, better preparing students for the complexities of entrepreneurial ventures.

Conclusion

The study focused on assessing the frequency of use of various teaching methods and their implications for entrepreneurship education. The findings reveal that the predominant teaching methods employed by respondents are traditional in nature, with lectures and the distribution of course notes (commonly referred to as handouts) being the most frequently used. Unfortunately, these methods, while effective in conveying information, may not be optimally suited for developing the practical skills and fostering the entrepreneurial mindset crucial for cultivating entrepreneurs and an entrepreneurial culture within the society. Moreover, the study highlights the underutilisation of more experiential and interactive teaching methods that encourage critical thinking, creativity, and intuitive decision-making, all essential attributes for budding entrepreneurs. While case studies and business plan preparation are used with some frequency, there is a notable lack of emphasis on teaching methods that involve direct engagement in the entrepreneurial process, such as supervised industrial work experience schemes (SIWES) or business simulation. Finally, the research identifies several challenges that hinder the adoption of certain teaching methods. For instance, the limited availability of local content for case studies and the lack of necessary IT infrastructure for business simulation restrict their use. Also, the fear of overburdening students due to the time and financial commitments involved discourages the use of research projects as teaching methods.

Recommendations

Based on the findings of this research, several recommendations emerge to enhance the delivery of entrepreneurship education in Nigerian polytechnics:

1. **Diversify Teaching Methods:** Polytechnic educators should diversify their teaching methods beyond traditional lectures and handouts (Mat, 2019). Encouraging the use of case studies, business plan development, discussions, and experiential learning can provide students with a more holistic and practical understanding of entrepreneurship.
2. **Promote Experiential Learning:** Encourage the integration of practical experiences, such as SIWES and business simulation, into entrepreneurship education (Sulaimon, 2020). These methods offer students the opportunity to directly engage in entrepreneurial activities and foster the development of practical skills.
3. **Facilitate Industry-Academia Partnerships:** Establish collaborations between polytechnics and industry practitioners to incorporate real-world experiences and perspectives into entrepreneurship courses (Bazkiaei *et al.*, 2021). Guest speakers and facilitators from the business world can serve as valuable role models and mentors to students.
4. **Leverage Entrepreneurship Development Centres (EDCs):** Maximise the use of EDCs in polytechnics for entrepreneurship education. These centres should be used as entrepreneurial hubs that naturally attract the interest of the students instead of being dreary pedagogical silos (Abe and Iwegbu, 2019). These centres should focus on activities such as incubating business ventures and providing spaces for entrepreneurial thinking, creativity, and collaboration.
5. **Enhance Local Content for Case Studies:** Develop or adapt case studies that reflect local business realities and challenges (Azuka, 2018). This ensures that case studies used in entrepreneurship courses resonate with the Nigerian context.
6. **Invest in IT Infrastructure:** Address the IT infrastructure limitations that hinder the use of business simulation as a teaching method (Akpanobong and Frank, 2018). Providing the necessary software and power resources can enable the effective implementation of this engaging approach.
7. **Encourage Industry Involvement:** Encourage more active involvement of industry practitioners and entrepreneurs as guest speakers and facilitators in entrepreneurship courses (Fagge *et al.*, 2020). Their practical insights and experiences can inspire students and provide valuable real-world perspectives.

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