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Article

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Entrepreneurial learning in informal apprenticeship programs: Exploring the learning process of the Igbo Apprenticeship System (IAS) in Nigeria

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ABSTRACT

This research examines the unique learning process of the Igbo Apprenticeship System (IAS). This approach to the development of enterprises and entrepreneurship, originated in the ethnic group of communities in the Southeastern part of Nigeria, uses mimetic learning to instil in its participants' knowledge and behaviours intended to create a lifelong approach and mindset to entrepreneurship development. This form of mimetic learning predates the mediaeval era and takes place outside the formal educational system. As a consequence, it largely does not rely on participants having a specific level of educational achievement. Rather it requires a long-term commitment from the apprentice, their family and the entrepreneur. The research expands the theoretical understanding of entrepreneurial learning through an evaluation of an entirely experiential base using the Mimetic Theory and Institutional Logics as the critical lens to explore the antecedents of entrepreneurial intention and social learning. It evaluates and combines the available evidence into a conceptual framework that shapes the process of entrepreneurial learning as an experiential activity. Qualitative data were gathered from 40 former and current apprentices and critically analysed using the illustrative case study and process tracing approach. The research contributes to the extant entrepreneurial learning process literature by identifying, reviewing and synthesizing available research into a conceptual framework that explores the process of entrepreneurial learning as an experiential process. It also highlights effective mechanisms of skills transfer and business training, contributing to the literature on informal/vocational training and human capital development. Key issues in entrepreneurship education including the different informal learning processes of the IAS and the identification of specific dynamics in the interaction and development of the learners were examined.

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1. Introduction

Entrepreneurship is termed 'complex' by researchers and practitioners alike due to its multifaceted nature. Add to this that the process of learning has been understudied further highlighting these complexities (Chen et al., 2021). Research shows that entrepreneurial learning mostly occurs while 'doing', and then reflecting on the activity (Sullivan, 2000; Kassean et al., 2015; Tummons, 2022). Therefore, to fully understand the complex process of entrepreneurial learning, the individual's past and ongoing experiences should be critically considered. This has given rise to a move to understand and promote entrepreneurial learning through the apprenticeship model, which focuses on gaining entrepreneurial skills through experience or mastery (Nnonnyelu, 2020). Many countries deploy apprenticeship

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programmes and are mostly grounded in the underlying principle of 'mastery'. It is believed that mastery is the terminal point of the apprenticeship, with the 'apprentice becoming the master', a process that is developed according to specific historical and cultural contexts (Deissinger et al., 2006). As Onwuegbuzie, (2017) states, '*apprenticeship is an experience building process that allows the apprentice to learn and relearn while on the job*'. In Nigeria, this process takes a unique form where individuals or apprentices learn by observing and adopting the behaviours of the Oga/master. The experience is fully immersive, in that the apprentice lives with the Oga and his family, and works with them for the duration of the apprenticeship, which is typically six years, but maybe longer (Iwara, Amaechi, and Netshandama, 2019) This form of learning, therefore, can be said to be built upon the tenets of entrepreneurial intention which suggests that the decision to choose entrepreneurship as a career must be intentional by the individual who is involved with the aim of independent replication. Therefore, this paper seeks to answer the questions: *Can a better understanding of entrepreneurial learning through the IAS model lead to more successful entrepreneurial outcomes in Nigeria?*

This study makes three significant contribution to research. Firstly, we contribute to the discourse on entrepreneurship education and informal apprenticeships. Secondly, it demonstrates the complex interplay of different institutional logics—community, economic, cultural, and ethical—in shaping entrepreneurial behaviour. This multidimensional approach provides a richer understanding of how these logics coexist and influence each other. Thirdly, it illustrates how deeply embedded cultural values and norms can guide business practices and organizational structures. Insights from this study can inform the design of vocational training curricula that emphasize hands-on learning, mentorship, and community engagement.

The paper is divided into five sections. The first section presents a detailed narrative review of relevant literature, which includes: Entrepreneurial Learning, the Apprenticeship Model of Learning and Entrepreneurial Intention. The second section discusses the theoretical framework adopted as the blueprint of this study. The third section outlines the methodological approach adopted, which is the Illustrative Case Study approach, employing the Process Tracing (PT) technique. The fourth section presents and discusses the findings, followed by the final section which presents the conclusion and recommendations.

2. Literature Review

The transition from formal or informal training to work or entrepreneurship which is a form of apprenticeship has a long history. Recently, alterations including the transforming nature of entrepreneurship, the increased use of technology and the changing rhythms in the employment market influences the apprenticeship journey and its destination. Gessler (2019) describes apprenticeships as the oldest form of training in the world of work and business. The practice of apprenticeship as a means of passing on skills is believed to predate the medieval era when trade guilds, journeymen and craftsmen flourished to ensure that skills were passed on and productive power of labour could be harnessed. This form of mimetic learning often happens outside of the formal education system. In describing the Cognitive Apprenticeship, Collins et al. (2006) asserts that teaching and learning are effectively based on the apprenticeship model. She compares it to how children learn to speak by imitating adults in their families and communities. She further argues that even in modern societies, newly employed scientists learn how to conduct world-class research by working side by side with more senior scientists. This is found in academia where doctoral students are coached by others who have already completed the process. Apprentices, therefore, are people who commit to work for, or with, others for a period to learn a craft. As Nnonyelu and Onyeizugbe observe, this may or may not involve theoretical knowledge, but it is almost always geared towards a specialist interest or skill intended to earn the apprentice a living.

2.1. Entrepreneurial learning

Entrepreneurial learning (EL) does not have a single universally accepted definition, but it is generally described as a continuous process that enables the development of knowledge given that it is effective in creating and managing ventures (Politis, 2005). Deakins and Freel (1998) define entrepreneurial

learning as the process that creates the start and incessant modifications of ventures. Earlier, March (1991) describes the process of learning inside an organisation as naturally social and takes place through interacting either as groups or individuals or both. Although advances have been made in the understanding of entrepreneurial learning, it is still obscure how entrepreneurs' learning process varies from others as they adjust to changing markets (Wang & Chugh, 2014). The entrepreneurial learning literature also indicates that entrepreneurs who have created start-ups or are involved in venture creation appear to be more effective and successful at managing further ventures and start-ups. If this assertion is true, this paper will examine the extent to which the Igbo apprenticeship system develops in the apprentices the knowledge, experience, and entrepreneurial capabilities through learning to start, grow and sustain the venture created. In the same vein, it will seek to identify the special knowledge, expertise and capabilities that the system imparts to the apprentices to become successful entrepreneurs and how the apprentices learn to work in entrepreneurial ways.

Several studies carried out to investigate the effect of entrepreneurial learning on venture creation pointed to the role of experience, including previous start-ups, as proxies for entrepreneurial learning (Sapienza & Grimm, 1997; Ronstadt, 1988). Other studies indicate that much of the learning that occurs in entrepreneurial contexts is practical (Deakins & Freel, 1998; Sullivan, 2000; Sarasvathy, 2001). It can be inferred from the findings of these authors that the intricate process through which entrepreneurs learn from past experiences is advantageous to consider the necessity to improve our understanding of entrepreneurial learning to improve entrepreneurial activities. The discussion has moved on significantly from understanding 'what' should be taught to a focus on cognition and 'how' entrepreneurs learn (Santos, et al, 2016; Shepherd, 2018). Notwithstanding this knowledge, understanding how entrepreneurs learn from experience is still quite fragmented, hence the necessity to study new and novel approaches to the learning process. The IAS in Nigeria is a very successful example of experiential entrepreneurship in practice in a developing country. The experiential model developed by Kolb (1984) described a process of knowledge creation through the transformation of experience. Whilst learning on the IAS is neither codified nor mapped against existing frameworks, it nevertheless achieves its purpose. That said, we know that individuals have different learning styles, but what is unclear is how the Oga/Masters in the IAS can respond to the individual learning styles of their apprentices. The personal 1-2-1 approach adopted in the IAS may mean that this is more intuitive than planned.

Like Kolb (1984), Reuber & Fischer (1999), Politis (2005) and Bruderl et al. (1998) all confirmed that the work experience of entrepreneurs increases the survival rates of their ventures and consequently the likelihood to reduce the failure of the venture. Other researchers, (Duchesneau and Gartner, 1990, Romanelli & Schoonhoven, 2001; Shepherd et al., 2000; Shepherd & Patzelt, 2018) suggest a correlation between the management experience of founders and the survival of their ventures. These studies indicate that prior management experience raises peoples' intention towards venture creation and makes the opportunity recognition process easier. Overall, the studies support the view that previous management experience tends to give individuals information about several basic attributes of entrepreneurship that are valuable for recognising and acting on a variety of entrepreneurial opportunities (Lockyer et al., 2024).

Both the IAS (which is an informal form of training) and other forms of formal training such as the Compulsory Entrepreneurship Education (CEE) introduced by the Swedish government aim to foster entrepreneurship, albeit through different methods and within distinct socio-cultural contexts. While the IAS is a community-based training system where apprentices learn through hands-on experience and direct observation of their mentors, formal trainings such as the CEE is integrated into the formal education system, with entrepreneurship being a compulsory subject in schools (Smolka et al. 2023). According to Tselepis and Nieuwenhuizen (cited in Soelberg et al., 2024), entrepreneurship education may inspire students to start their own businesses rather than work for others, and it may also help them become more creative, independent, and self-confident. The same can be said about the motivation of the apprentices in the IAS given that the conversion rate is about 90%. There has been an ongoing debate on whether formalising the IAS will upset the natural balance of successful entrepreneurs taking pleasure in having developed and established younger people in business. Some have suggested

that changing the way of learning and structure of the IAS may be made to better safeguard the young apprentices but may be detrimental in terms of appeal (Ekweke, 2021).

2.2. Apprenticeship Model of Learning

The apprenticeship programme is deployed in a variety of forms in different countries, but they are all grounded in the underlying principle of 'mastery' and mastery is the terminal point, with the apprentice becoming the master (Deissinger, Smith, and Pickersgill 2006). For example, the European Union provided a region-wide overview of the range of apprenticeship-type schemes prevalent in the 24-EU Member States to appraise the employability levels of apprentices and improve their labour market transition (European Commission, 2012). It is worth noting that the concept of apprenticeship in the EU is company-based training in combination with school-based training schemes, and the apprentices are paid. These schemes are formally contracted, subject to governance and oversight and often lead to a qualification. The Australian apprenticeships also follow a similar model to the EU, and they have traineeships, which are a newer and shorter form of apprenticeship that focuses on the service sector. Both pathways, however, are controlled by the government (Smits, 2006). In contrast, the UK apprenticeship schemes are skills focused and many are linked to university degrees (Smith, Tuck, and Chatani, 2018).

The apprenticeship model operated in developing countries like Nigeria, is mostly informal (Smith & Kemmis, 2013). These informal apprenticeships are not formally governed, there are no formal contracts and education is not the primary goal. This type of apprenticeship is thought to go beyond the neoclassical conceptions of human capital and the labour market, which view apprenticeship merely as a transactional two-party contract, towards an approach that recognises the value of practical, experiential business training system, like the Igbo Apprenticeship System (IAS) with their roots in a cultural and a community (ILO, 2012).

The apprenticeship scheme is seen as the seedbed of the Igbo's entrepreneurial spirit which aims to foster self-employment and self-sufficiency as a way of life (Chukwuma-Nwuba, 2019). The IAS sees families matching aspiring young entrepreneurs with experienced masters, who they work side-by-side with, often in micro or small enterprises. The service to be provided by both parties is usually specified at the outset of the relationship. There is sometimes a payment made to the master, but largely it is seen as the binding of a relationship between two families. This practice is widespread and is partly believed to be a major contributor to the region's entrepreneurial reputation. The businesses created through this process, irrespective of where they are located, enjoy a longer life span than most start-up businesses in the rest of the country; it is a model that is working (MG Modern Ghana, 2019; Orugun and Nafiu, 2014; Olutayo, 1999).

3. Theoretical backdrop

3.1 Institutional logic and mimetic pedagogy in entrepreneurial learning contexts

Institutional Theory (IT) focuses on how coercive, normative, and mimetic pressures shape the behaviours of individuals, and how they impact the structure of a given environment or culture by seeking legitimacy (DiMaggio & Powell, 1983; Thornton et al., 2012). Sine and David (2010, p. 2) argued that institutional theory may provide a 'conceptual apparatus' to understand the social construction of entrepreneurship. However, they recognised that it may also distract from the personal traits and backgrounds of individual entrepreneurs, and therefore the interplay between their agencies, cognitions, and socially constructed realities (Friedland & Alford, 1991; Thornton et al., 2012). The cultural rules and cognitive structures of these realities, including the prevalent social norms and values of organizations, are influenced by relationships between individuals, organizations, and society. Without them, an organization is likely to fail, whilst those that have them, survive (Sine & David, 2010; Thornton & Ocasio, 1999). Therefore, such cultural-cognitive influences are dynamic, changeable and situation specific, thus, providing an 'Institutional Logic' (IL) which motivates individuals to develop existing structures. For example, the formation of cognitive schemas and symbols, which may not only

constrain, but also enable evolved behaviours (Thornton et al., 2012, p. 76; Sine & David, 2010). Likewise, as successful constructs become more prevalent, they are also perceived to enhance legitimacy, and are therefore 'mimicked' by others (Sine & David, 2010, p. 12). Such mimetic activity may result in adaptations to suit individual requirements, but also in the proliferation of shared meanings across individuals and organizations, over time (DiMaggio & Powell, 1983; Dannreuther & Perren, 2012, p. 604).

Mimesis, in institutional theory, refers to the process of imitation whereby organizations or individuals adopt certain practices, structures, or behaviours modelled by others, often perceived as successful or legitimate. In the IAS, mimesis plays a significant role in the dissemination and perpetuation of business practices. Relationship between Institutional Logics and Mimetic Learning in the Context of the IAS involves linking individual and aggregate levels of roles and characteristics in learning the learning process. It is about the interactions between the individual and their external environments especially the influences of each on the other (Berger & Luckmann, 1967; Smallbone & Welter, 2006). For example, during business start-up, there is diversity in how each initiation is approached and enacted. However, once established, DiMaggio and Powell (1983) argued that organizations become more similar in nature either by three main types of isomorphism: (A) coercive isomorphism emerging from issues with legitimacy, and the attempts to attain it; (b) mimetic isomorphism which is a response to overcoming uncertainty through the modelling of the practices of successful others and (c) normative isomorphism, which is associated with professionalisation in a given field (Mizruchi & Fein, 1999).

The study of Zaman et al. (2022) found that Institutional Theory provided the lens for exploring family relations and Entrepreneurial Intention (EI) in business. Through the mediation of the 'institutional' pressures, i.e. normative, coercive, and mimetic pressures, they found that family members are expected to follow a set of social rules influenced by the beliefs, attitudes, and behaviours of those in authority. This interplay is evident in the IAS between all entities (i.e. parents/guardian, apprentices, masters, and the wider community) and institutional influences (i.e. religion and culture).

In the case of the IAS, this is constructed by the parents, family, and the community members to which they belong, both directly and vicariously. From this cultural-cognitive perspective, the normative influence of this collective sense making, along with the tacit understanding of societal rules and values, helps to create a form of legitimacy (Smallbone & Welter, 2006). However, such acts of social persuasion may also be construed as coercive. In the Nigerian (by implication, Igbo) culture, not only are children dependent on their parents' support and guidance thus feeling a sense of obligation to adhere to their wishes, but they are also 'forced' to accept their decisions and influences, especially in selecting their future career trajectories (Bloemen-Bekx et al., 2019). Such environments also develop mimetic pressures on the individuals involved. These individuals observe those in authority (parents, guardians and 'ogas' or masters) as successful; providing encouragement to emulate desirable behaviours they observe, thus providing 'role models', exemplars of the desired traits and behaviours (DiMaggio & Powell, 1983). Through repeated engagement, modelling, and feedback with masters, the apprentices refine their skills and self-concepts, whilst learning what is expected of them. In observing how their masters and other ogas within the community succeed or fail in certain activities, they may also use these vicarious observations and experiences to help them overcome and sustain their own courses of action (Lent et al., 1994; Smallbone & Welter, 2006). This is consistent with mimetic pedagogy where the teacher-learner relationship is authoritarian, and the learner acquires knowledge and demonstrates it through repetition. Thus, knowledge transfer and reproduction is accomplished through a process known as Mimesis (Lorenz, 2012). The IAS embodies mimetic pedagogy which is grounded in religious truths and the emphasis is placed on students acquiring factual knowledge, either through their own learning or by the guidance of knowledgeable individuals i.e. their masters. Learners demonstrate their acquisition of empirical knowledge by accurately presenting them correctly to teachers through assessments.

As with other authoritarian didactic pedagogies, in mimesis, the learner's subjectivities and self-identity are not completely eradicated. Learning is only achieved when the learner establishes a connection in the process active listening. No teacher (or ogas in the case of the IAS), would desire learners to remain completely passive or to assume that they are empty receptacles, rather, they want the learners to internalise the acquired knowledge. Mimesis is always conducive to internalising knowledge, but that is surely what any teacher would want. Thus, Mimesis always promotes the internalisation of knowledge, which

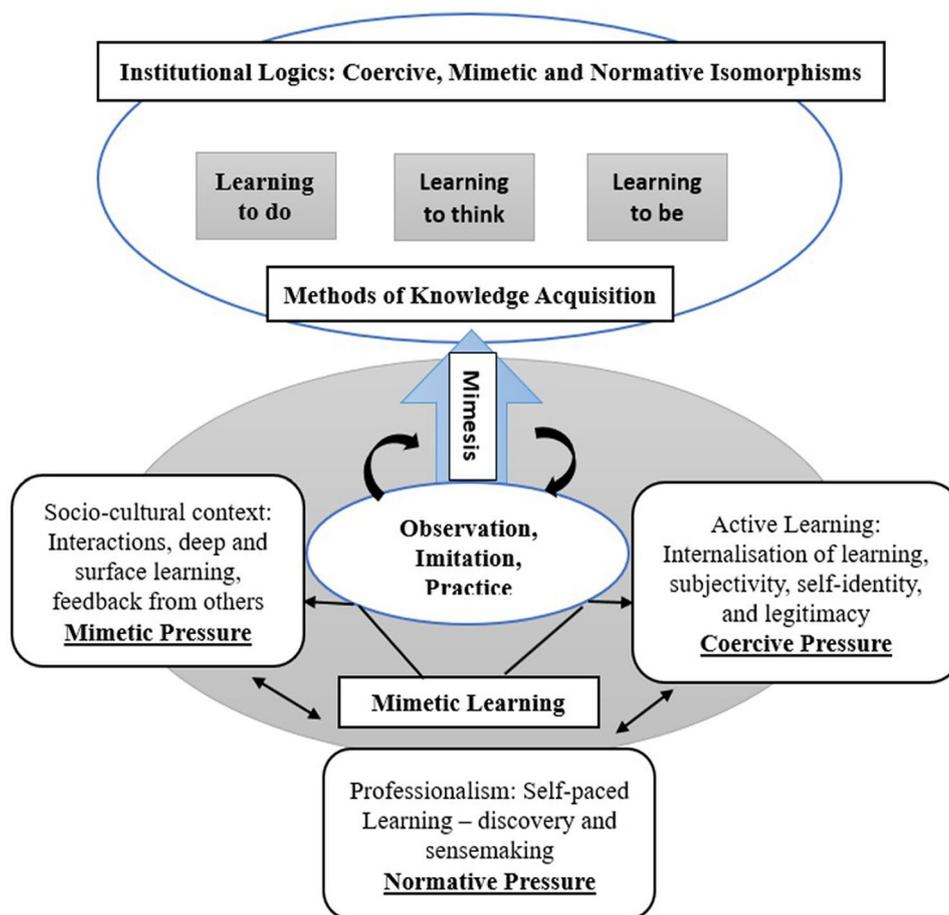


Figure 1. IL, and Mimesis in the IAS (adapted from Chan & Chan, 2021).

is undoubtedly a desirable outcome for any teacher or master. Figure 1 depicts the theoretical framework adopted for this research.

4. Methodology

This research utilised the Illustrative Case Study (ICS) approach that employs the Process Tracing (PT) technique. According to Soliman (2023), process-tracing (PT) is a method used to find the causal process that occurs between an independent variable (or variables) and the outcome of the dependent variable. It involves identifying the causal chain and causal mechanism that connect the variables (George & Bennett, 2005). This technique was chosen because it enabled us to trace causal mechanisms using detailed, within-case empirical analysis of how a causal process plays out in an actual scenario. By adopting the PT approach, we were able to investigate the underlying causes that can clarify the observed occurrence (Beach & Pedersen 2019), specifically, the learning process in an informal and unstructured apprenticeship program such as the IAS relative to formal and structured VET programs. We examine these factors in connection to the consistency and changes in the relationships between the 'ogas', and apprentices in the IAS over time. This allows us to evaluate the sociocultural nuances in the development of the IAS in comparison to form VET programs.

According to Beach (2020), Process Tracing (PT) can be used for both case studies that aim to gain a greater understanding of the causal dynamics that produced the outcome of a particular historical case and to shed light on generalizable causal mechanisms linking causes and outcomes within a population of causally similar cases (Beach, 2020). Additionally, process tracing adds analytical value because it makes it possible to draw firm causal conclusions from examining the evidence that a causal mechanism operated in a particular example. However, given that Process Tracing (PT) is a single-case method, it can

only be used to conclude individual cases. To this end, we have chosen to use the illustrative case study which is a descriptive case study that highlights one or more circumstances of an event to clarify the situation (Hayes et al., 2015). This use of the illustrative case study and the process tracing techniques adds more depth to our research.

4.1. Research sample and data collection

The sample for this research was drawn from a pool of Igbo entrepreneurs in Nigeria currently in the IAS system either as Apprentices or as masters or 'Ogas' (i.e. employers), using purposive sampling technique. This study utilised the illustrative case study approach was chosen, adopting a multi-modal approach for data collection that included interviews with the Masters (employers) and direct participant observations of apprentices by way of daily journal entries.

In soliciting diary entries, we had to establish a balance. We sought to establish a user-friendly procedure that enabled the participants/diarists to express themselves while also directing them toward the subjects or themes that we were interested in. We used several methods to accomplish this: (a) the diary required straightforward, everyday activities, like daily chores at home and in the shop; (b) the instruction was straightforward and non-prescriptive; and (c) we established a rapport with the participants that enabled us to call them often and gently nudge them not to forget the entries. The datasets include (a) 20 former apprentices from across different sectors who have participated in and supported others through the apprenticeship program (regarded as master or 'ogas'); (b) 40 current apprentices and (c) archival records. This approach agrees with the argument of Selfe (1985: 89) that '*...methods of indirect observation provide only an incomplete reflection of the complex set of processes in composing, a combination of several such methods should be used to gather data in any one study.*' Thematic analysis was employed for this study.

To begin with, we thoroughly examined and analysed the empirical data of the IAS, extensively researching the theoretical literature to identify any indications of probable processes of the IAS that might serve as both a cause and an outcome (Beach, 2020). Next, we examined how the IAS originates from a deliberate decision and how the process of entrepreneurial learning is highly experiential and guided by an underlying principle of 'settlement', juxtaposing religion, and culture (the Igbo tradition). Process Tracing (PT) allowed us to not merely provide a descriptive narrative account of the IAS programme and its projected outcome, due to its focus on causal explanations. Rather, by utilising the Process-Tracing (PT) technique, we investigated the theoretical causal pathways that link the cause (IAS programme) with the outcomes (the Incubator platform and entrepreneurial intention and learning). Thus, we chose to utilise a deductive methodology, commonly employed when there is an established empirical relationship between a cause and its consequences in current literature, but confusion remains regarding the specific mechanism that connects the cause to the effects.

We began by conceptualising the causal mechanisms, in this case, the interrelationship between the material and symbolic dimensions of the religious, cultural, and social context of the IAS. In terms of material, we explored the horizontal interactions relating to networks and competitions, as well as the vertical power dynamics involving individuals such as parents, leaders, apprentices, and trade associations. The apprentices' entrepreneurial intentions are deemed to be shaped by symbolic logics that construct their identities, agency, define the appropriateness of their activities, and establish classification systems to guide the interpretation of their behaviours. We focused on the parts of the tradition and religion which are the mechanisms that are theorised to be necessary for the expected settlement outcome. Next, we developed observable manifestations for each part of the causal mechanism including daily diary entries of some of the entities engaged in the IAS. We then gathered empirical data to see whether these observable manifestations were present or not – the purpose of which was to enable us to make logical inferences (Beach & Pedersen, 2019). After conceptualising the causal mechanisms, the next step was operationalization, which entailed turning the theoretical expectations into precise predictions of observable manifestations found in the case. Once we developed and put into practise the mechanism, we proceeded to the last stage

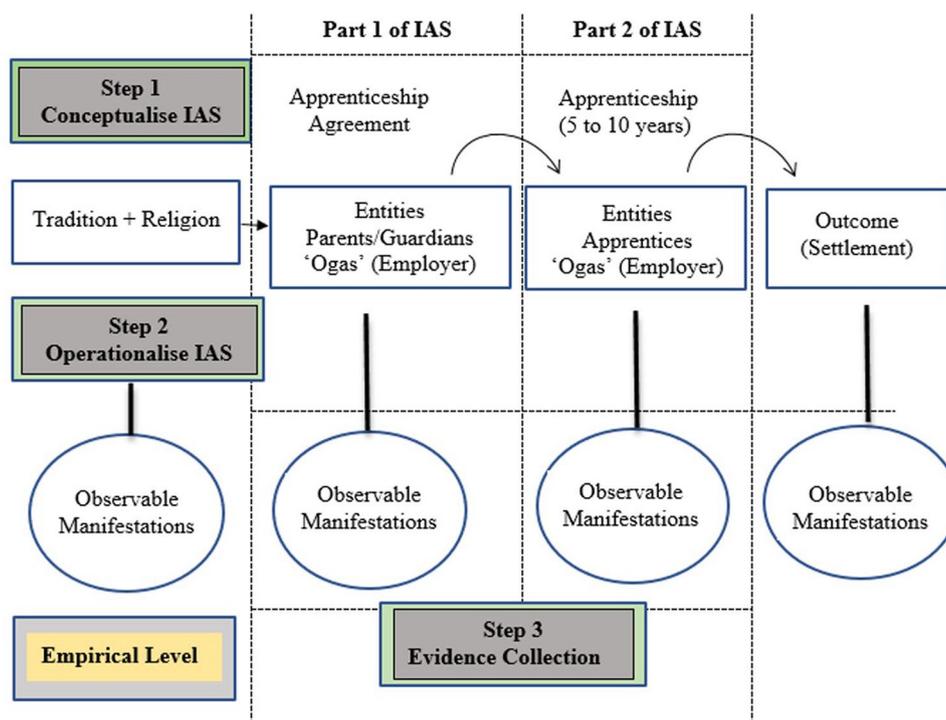


Figure 2. The process Tracing (PT) technique used in this study.

(step 3), which consisted of collecting empirical data that could be utilised to make causal inferences. This allowed us to assess (a) whether the anticipated mechanism was actually present in the case, (b) whether it operated as expected, or (c) whether only certain elements of the mechanism were present. We concluded from the empirical data gathered that a causal mechanism was present in the IAS case, as shown by the bold lines in [Figure 2](#).

5. Findings and discussions

This study focused on the learning process, albeit informal, and explored it concerning established pedagogical approaches that could be applied to other contexts because the goal of this study was to comprehend the skills development and knowledge acquisition of the apprentices in the IAS. From the findings, it can be deduced that the typical length of an apprenticeship is between three and ten years, with some programmes lasting up to fifteen years (in extreme cases), depending on the trade or sector and the age of the apprentice at the time of enrolment. It should be mentioned that girls typically do not participate in the process due to the nature of apprenticeships and cultural factors. Instead, girls participate in a variety of apprenticeships that do not mandate that the apprentice resides with the Master. As a result, this study's participants are all male. [Table 1](#) provides a breakdown of the respondents' profiles.

Illeris (2002, p. 24) defined learning as 'any process that in living organisms leads to permanent capacity change and which is not solely due to biological maturation or ageing.' When it comes to cognitive (content), emotional (incentives), and social (interaction), elements of learning-by-doing or workplace learning, are two distinct, yet integrated processes at work (Poortman & Brown, 2023). The findings from the data gathered are categorised into themes related to the research goals: (a) learning by repetition; (b) learning by doing; and (c) learning by storytelling, to better understand the variables. The apprentices' experiences and perspectives on skills acquisition in the IAS are presented in this section with the use of the process tracing approach. Overall, the data revealed the subjectivities employed by the apprentices and how they dealt with the intricate sociocultural issues that are woven into the learning process.

Table 1. Demographic profile of respondents.

	No. of respondents	Percentage (%)	Type of businesses	Percentage (%)
<i>Age of respondents</i>				
15–30	40	67	Supermarket	25
31–40	14	23	Clothing/tailoring	5
41–50	5	8	Electronics	12.5
Above 50	1	2	Mechanics	5
<i>Marital status of respondents</i>				
Single	40	67	Building materials	20
Married	20	33	Health and Beauty	7.5
<i>Years in business (business experience post apprenticeship) – 20 masters</i>				
			Electrical materials	5
			Medical Supplies	5
			Interior decoration	2.5
			Boutique	7.5
			Wholesale and Retail	5
<2 years	2	10		
2–5 years	5	25		
6–10 years	8	40		
>10 years	5			
<i>Years in Apprenticeship (current apprentices) – 40 apprentices</i>				
<1	3	7.5		
2–5	10	25		
6–10	21	52.5		
10–15	4	10		
>15	2	5		

5.1. Learning by repetition

The findings from the data reveal that the IAS approach is consistent with established approaches used in entrepreneurship education programmes involving learning by repetition and learning by copying (mimetic). Petkova (2009) and Bruner (2001) explained, learning through repetition supports several crucial educational goals, including self-directed exploration, the capacity for reflection, consistency, and mental clarity and all of these foster deep learning. The goal in IAS is for the master to achieve the ‘Goldilocks’ result with the right amount of repetition. This finding further confirms that the apprentice has the chance to learn about business models during the subsequent stage of incubation and they receive guidance and training on how to interact with customers and close sales. These findings are consistent with Bruner (2001), who argued that apprentices who learn by repetition gradually become more engaged with ideas and concepts during the learning process, thus enabling them to reach a critical mass that helps them to internalise the concept. Through the repetitive interactions with the master and the customers, the apprentices develop the impulses for the process of internal knowledge acquisition and gain skill, knowledge, or competency, built through this acquisition process. We, therefore, opine that the IAS provides opportunities for training, learning, co-creation, and the development of business concepts like contemporary incubation platforms do in the competitive, aggressive world of high-stakes business where profits and losses hold a premium. We further argue that the IAS offers a more challenging and real-world setting for training and nurturing. Table 2 shows the coding notes for learning by repetition and typical quotes.

To better understand the learning process in the IAS, this paper adopted the diary data collection approach. With this approach the participants self-reported their behaviours, activities, and experiences over a four-week period and the approach enabled us to develop a deeper grasp of the process, patterns, and concepts. From the diaries and archival records, we found a consistent pattern that is traditional/customary at best and different from the formal apprenticeship systems. This helped to provide a deeper understanding of the feelings and sentiments of the apprentices in the early stage of the IAS because the daily diary recording also encouraged deeper reflection. The findings indicate an unstructured approach to learning however, there is significant emphasis placed on repetition as a vital approach to learning a skill. This finding is consistent with Collins et al. (1991), mentioned earlier.

The data from the diaries of the apprentices showed that 83% of the participants alluded to optimism, motivation, and their approach to learning with a ‘can do’ which is consistent with Bruner (2001), who argues that these attributes accelerate and deepen the engagement training programmes. This shows that despite serving in various capacities, including as domestic help, they remain enthusiastic, passionate and grateful for the training and these attributes influenced their intention to engage in behaviours that resulted in positive attitudes and invariably positive outcomes. The ‘can do’ attitude

Table 2. Coding nodes for learning by repetition and typical quotes.

Educational goals for learning by repetition	Source number*	Reference points**	Direct quotes
Self-paced discovery/ learning			<p>'Since I joined my 'oga' 6 months ago, every morning after doing the housework, I come to the shop and do the cleaning, arranging and running errands for all the senior apprentices. My 'oga' told me to take my time and observe what everyone is doing so that I can understand it very well before I start doing more harder work' (P5).</p> <p>'I am the third apprentice, so I am always the one to open the shop, clean it, dust all the equipment and get the shop ready to receive customers. I display the plain and pattern materials and I run errands for the other apprentices. My oga told me to continue doing this until I am comfortable then I will start learning how to cut materials' (P3).</p> <p>'I started my apprenticeship two years ago. For the first year, my oga never pressured me or give me any list of things to do. I used to do the errands and observe the senior apprentices to learn what they are doing. After some time, he started sending me to the market to get supplies. He told me he will know when I was ready for that next step in the training' (P2).</p> <p><i>'In my case, I started going to market for my oga after three months. My oga used to praise me that I am a fast learner and that I learnt faster than my older apprentices. I was the youngest among 6 apprentices, but I started going to market after only 3 months while some took a year and others over a year. As soon as he saw that I was ready, he started giving me more to do' (P12).</i></p>
Reflective thinking			<p><i>'At the end of every week, my oga will call us together to discuss our activities and performance. We talk about what was good and what was not good so that we can look for ways to improve. Because of this, every time I have to consider everything that happened before we have the meeting so that I can know what to say' (P16).</i></p> <p><i>'Every week, we used to discuss what we did to see if there are issues, we need to change. As a new apprentice, this helps me to consider what I found difficult or challenging and try to see how to understand the situation and the things that my master is trying to teach me' (P17).</i></p>
Consistency			<p><i>'My oga told me when I started my apprenticeship that I should continue to do the same things every day because practice makes perfect. It was not easy at first to be doing the same thing over and over again, but after sometime, I find it much easier' (P4).</i></p> <p><i>'My oga told me when I started to watch my senior apprentices and see how they do things the same way all the time. He made it clear that diligence is very important if you want to succeed in life. You cannot do something right today and wrong tomorrow, it does not work like that' (P6).</i></p>
Clarity			<p><i>'At first when I started my apprenticeship, it was very confusing but the more I continued to do the things, it became easier to understand what my oga wanted me to learn. Now I think that if he gave me instructions without telling to do it every day, I may not understand it quickly' (P13).</i></p>

*References indicate the number participants. **Indicates the number of related quotes found in the data. Participants may have made more than one statement associated with the nodes.

including the support from their masters also impacts their perception of the ease of engaging in new venture creation. Similarly, there is evidence of learning-by-repetition which produces confidence and consequently positive attitude. This finding resonates with the normative beliefs of self-awareness in mimetic pedagogy, and these are vital in the IAS. In addition, as with other authoritarian didactic pedagogies, in mimesis, the learner's subjectivities and self-identity are not completely eradicated. Learning doesn't happen unless the student makes a connection through active listening. Teachers (or ogas in the case of the IAS) want their students to internalise the knowledge they have learned, not to think that they are empty vessels or to be absolutely inert. Any teacher would undoubtedly want their students to internalise knowledge, and mimesis is always helpful in that regard. As a result, Mimesis consistently encourages knowledge internalisation, which is surely a goal for every master or instructor. [Figure 1](#) depicts the theoretical framework adopted for this research. It shows the application of the institutional logics and mimesis as conceptualised for this study. As one apprentice put it,

'... being an igbabo is a blessing. Every young boy in our community looks forward to this opportunity especially an opportunity to learn from a successful oga. I have to remind myself of that every day and this makes it more important that I do not disappoint my oga and my family too' (P 9)

Within the institutional logics and mimesis, the knowledge of available resources, chance recognition, or barriers may also serve as motivators. Through repetitive interactions with the master and senior apprentices, the apprentices develop a sense of what resources are available to them during the apprenticeship and what will be available on completion of the programme. This has implications for the development of impulses for the process of internalising knowledge and skills acquisition or competency built through this process. Given this finding, we believe that the repetition of patterns is beneficial to mastery despite the difficulties sometimes faced in finding opportunities to repeat concepts.

5.2. Learning-by-doing/experiential learning

The learners in the apprenticeship program participate in learning by doing by taking action alongside others, typically other apprentices but also external stakeholders. This finding is consistent with Vygotsky (1925) who developed the theory of learning by doing as Figure 3 shows. Conversely, it is at variance with Egan, (2004) who suggests the use of the acquisition-based model. Similarly, the finding support Vygotsky (cited in Lackeus, 2020) and (Miettinen, 2001, p. 299) with regards to the ‘externalisation of activity into artefacts¹’ and ‘internalisation of activity and the production of mental actions,’ which the author refers to as the two fundamental results of human activity. We further found that in the IAS internalisation results in deep learning and externalisation produces value or venture creation. Thus, the tools, rules, procedures, knowledge, ideas, and other elements represent shared artefacts, new artefacts, and cognitive artefacts in IAS. The finding shows that the IAS learning process includes curiosity, creativity, initiative, teamwork, and personal responsibility which are the elements of the entrepreneurial culture promoted by the OECD (Lackeus, 2020). Thus, with the application of the learning-by-doing framework, the researchers created a connection between entrepreneurship and experiential learning.

The narratives from the ‘ogas’ showed that curiosity, initiative and personal responsibility was the differentiating attribute between the apprentices. Hence those who exhibited these attributes were favoured above others who did not. The research also indicates that the learning-by-doing strategy encourages apprentices to develop learning habits by default through its deep learning component. Apprentices have opportunities to take initiative and engage in interaction with meaningful outcomes, especially outcomes that benefit the larger community. The system essentially relies on interactions therefore, it is team-based. Table 3 shows the coding nodes of the learning-by-doing. A person’s attitude (AT) towards taking action or

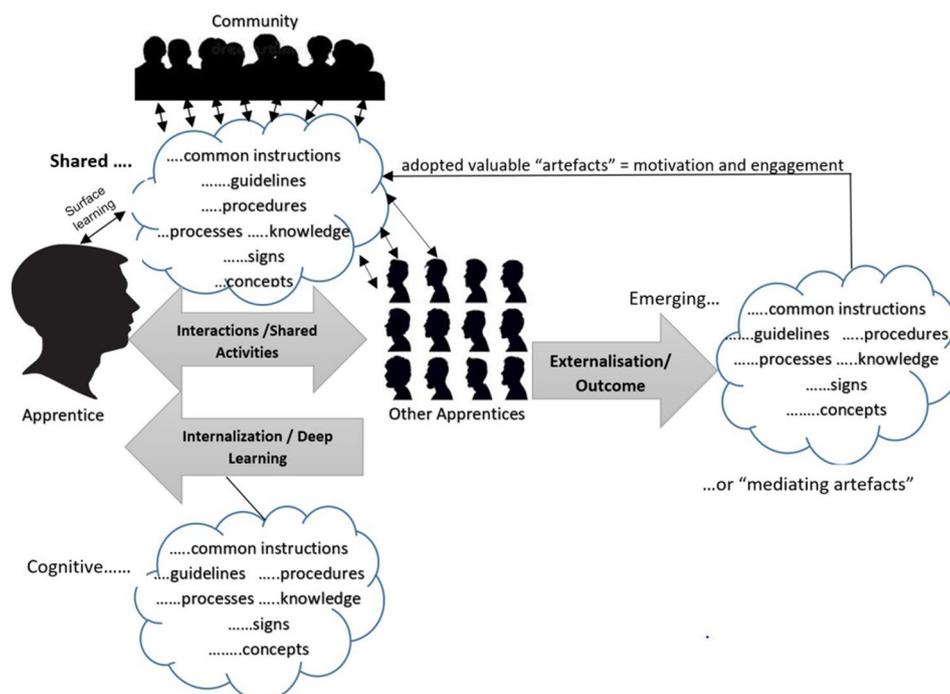


Figure 3. The Learning-by-doing process in the IAS (An adaptation from Lackeus, 2015).

Table 3. Coding nodes for learning-by-doing and typical quotes.

Educational goals for learning by repetition	Source number*	Reference points**	Direct quotes
Surface learning	43	38	<p>'This business was chosen for me by my father. Left to me, I would have preferred to learn mechanics instead of the supermarket business. Sometimes I feel like I am learning something that I am not interested in' (P11).</p> <p>'My oga usually sends me to the market to buy spare parts for our workshop. I find that I enjoy that part more than the mechanic work itself. I enjoy the interactions with the suppliers, negotiating for lower deals more than repairing cars' (P15).</p> <p>'I am learning to become a tailor, but I feel as if I don't know a lot about fabrics. There are times when customers come with their fabrics to make certain styles, and my oga will tell them that it cannot be done with the fabrics, but I don't know how he understands that and even though he tried to explain to me, I still don't understand it' (P19).</p> <p>'Our business is very technical, and I wonder if I will be able to master it on time. I don't want to spend too much time as an apprentice, I need to finish and get settled so I can support my parents. I am worried that I may not be too long that will not be good for me' (P16).</p>
Deep learning	56	35	<p>'Since I became an apprentice, my oga has made sure that take my time to learn what he is teaching me. He makes sure that I am active, and he always uses what I know to teach me what I don't know' (P5).</p> <p>'My oga allows me to make mistakes without any punishment. He always says that wise people learn through mistakes' (P17).</p> <p>'As an oga, I make sure that confront my apprentice's misconceptions and engage them actively in the learning process. I believe that it is important to keep them focused. I also ensure that I am consistent and fair in my assessment of their progress or when to introduce new concepts' (oga 3)</p>
Interactions	43	30	<p>As 'oga', one of my main responsibility is to ensure that my apprentices engage in real-world, concrete, professional, long-time consulting experiences' (oga 1).</p> <p>'I encourage my apprentices to go out and interact with apprentices serving in other businesses, they need to get outside ... and into conversations with them as well as with customers. This is not the only place where they can learn, there is information everywhere' (oga 8)</p>

*References indicate the number of participants. **Indicates the number of related quotes found in the data. Participants may have made more than one statement associated with the node.

not. This is internal and results from personal judgement and behaviour assessment based on personal views. Evaluation compounded by the adoption of these behaviours results in outcomes (intention).

The results of this study support similar apprenticeship studies' conclusions that, if there was a perceived additional benefit of attending training, learners were more inclined to participate in it even when resources were unavailable (i.e. positive attitude). They include having an 'oga' that is interesting and knowledgeable, participating in interactive activities that help apprentices grasp and apply the information, or receiving points for taking part in active learning activities. Similar to this, the apprentices' desire to exhibit professionalism and live up to the 'oga's' standards (i.e. positive subjective norm) has also been noted as a key factor in their active participation in the IAS. Perceived behavioural control was found to be a strong predictor of the desire to participate in the daily repetitive tasks in this study.

This study reports the first use of institutional logics and mimesis to assess predictors of apprentices' intention to attend and enrol in the IAS. The interplay between institutional logics and mimesis in the IAS creates a robust system that is both adaptable and resilient. The cultural values embedded in the IAS are perpetuated through mimetic processes, ensuring that each new generation of entrepreneurs upholds traditional values and ethical standards. While mimesis ensures the transfer of proven business practices, the economic logic of the IAS encourages innovation within these frameworks, allowing businesses to adapt to changing market conditions and new opportunities. The communal and familial logics are reinforced through mimesis, as successful practices and support structures are replicated across the community. This creates a cohesive support network that benefits all members.

Although the structure of the IAS is informal, the model of learning resembles the tool-mediated approach designed by the psychologist Vygotsky in 1925. This approach emphasises the value creation mechanism that characterises the IAS which juxtaposes value creation with venture creation. Thus, the apprentices engage in activities that trigger the development of entrepreneurial competencies (refer to Figure 3). The Igbo Apprenticeship System's success and sustainability can be attributed to the effective interplay of institutional logics and mimesis. The system's reliance on community, economic, and cultural

logics provides a strong foundation, while the process of imitation ensures the replication and adaptation of successful business practices. Understanding these dynamics offers valuable lessons for fostering resilient and adaptive economic systems in other contexts.

6. Conclusion and recommendations

The main objective of this study was to examine the process of learning and skills development in the Igbo Apprenticeship System which is predominantly practised in South-East, Nigeria. The study builds on Institutional logics and mimesis to understand how the IAS functions. By adopting an inductive approach using indirect observation and applying the process tracing techniques, data was collected and examined to understand the learning process of the apprenticeship system. In doing this, we increased the understanding of how and why the IAS has remained viable and successful in creating many entrepreneurs over the last six decades. The findings from this study show that the process has the potential to trigger deep learning which has been known to increase engagement, self-efficacy, feeling of self-relevance and joy among the apprentices. Given the success of the IAS in producing entrepreneurs, contributing substantially to the Nigerian GDP and producing a huge incubator platform, it is surprising that it is still not receiving the necessary recognition it deserves perhaps because of its informal characteristic.

While there are many players in the IAS process, families, communities, the Oga (entrepreneur) and the apprentice, there is a danger that it might become a closed loop of learning. Mastery can only be achieved to the level of the current Master unless the apprentice can improve on the model and use their learning and reflection to bring the business model up to date. Learning is at its most effective when it can be responsive to the environment in which it operates. Successful entrepreneurship is not just about the transference of knowledge, but about the transformation of knowledge. The learner needs to play an active role in their learning. While repetition can build skills, competence is a combination of skill and knowledge.

To this end, we recommend that the theoretical foundations, associated research and practical implications of the IAS be promoted by the departments of education and trade. Entrepreneurial education in Nigeria should be designed to incorporate the lessons learnt from the informal structure of the IAS and include other pedagogical approaches, debates and frameworks in designing a framework that creates value for all stakeholders (internal and external) as a formal part of the entrepreneurship education curriculum.

7. Contribution, implications and limitations

The study provided empirical evidence of the implementation strategy of the IAS thus, it improves the understanding of the system and the relationship between IAS, the learning process, new venture creation and sustainable entrepreneurship. Thus, it contributes to the apprenticeship and sustainable entrepreneurship literature and has implications for practice and policy. This study also makes three significant contributions to research. Firstly, we contribute to the discourse on entrepreneurship education and informal apprenticeships. Secondly, it demonstrates the complex interplay of different institutional logics – community, economic, cultural, and ethical – in shaping entrepreneurial behaviour. This multidimensional approach provides a richer understanding of how these logics coexist and influence each other. Thirdly, it illustrates how deeply embedded cultural values and norms can guide business practices and organizational structures. Insights from this study can inform the design of vocational training curricula that emphasize hands-on learning, mentorship, and community engagement.

In terms of practice, the study highlights a unique form of entrepreneurial learning process that is community-based and focused with overwhelming evidence that the success in Nigeria and by extension in the West African sub-region. The study shows that the IAS model can be adapted to other cultural and economic contexts, providing a template for developing apprenticeship systems that are both practical and culturally relevant. This system of apprenticeship can be extended to other parts of Africa to support more entrepreneurial success in Africa and reduce poverty that permeates the very fabric of the African people. Thus, the high rate of success of the IAS training process has implications for practice in business schools. In summary, the IAS offers a model and a clarification of how the Igbos foster and create transgenerational entrepreneurial activities and wealth.

The finding that the IAS apprenticeship learning process is virtually cost-free for the apprentices and their parents/guardians despite being a successful means of providing a genuine and undeniably contemporary example of how entrepreneurship can be propagated successfully with its possibility of being embedded uniquely into and across cultural norms has policy implications. The research accentuates the significance of the relationship between extended families and the informal system of apprenticeship practised almost predominantly among the Igbo ethnic group.

Given the nature of this study and the participant's characteristics, we believe the dairy data collection process was appropriate, however, this was not without its challenges. Firstly, most participants were not very literate and had no idea how to keep dairies. Therefore, we spent the first four weeks training them on how to complete the dairies and what information was relevant to the study. Secondly, most of them forgot to make any entries, thus we had to make multiple calls to remind them to make the entries. Thirdly, some apprentices leave it until the end of the week to make the entries, by which time they may have forgotten some of the activities undertaken. Thus, we found similar entries for consecutive days and little depth to the entries. Consequently, the period of data collection was unnecessarily prolonged beyond our expectations.

Note

1. Anything produced by human art and craftsmanship is defined as 'artefact' (Hilpinen, 2011).

Disclosure statement

No potential conflict of interest was reported by the author(s).

Author contributions statement

Conception and design- Bridget Irene. Introduction- Chioma Onoshakpor. Literature Review – Eunice Oluwakem Chukwuma-Nwuba. Methodology – Bridget Irene/Siona Ndeh. Analysis and interpretation of the data – Bridget Irene. Conclusion/Contribution of paper – Siona Ndeh. Revising it critically for intellectual content and the final approval of the version to be published – Prof Joan Lockyer. All authors agree to be accountable for all aspects of the work.

Ethics approval

The authors adhered to ethical standards according to International Centre for Transformational Entrepreneurship (ICTE), Coventry University, UK, to ensure best practices were followed at high standards, approval no. P109370. All participants signed off a consent form agreeing to take part willingly in this interview before the agreed interview date and a project brief was also sent out to all participants to enable them have an idea of what the interview will be about and not catch them off guard. Participants were also informed of the anonymity of their responses.

At the beginning of the interview, the researcher once again introduced herself and the subject matter and asked for permission of the respondents to record the interview. The participants were expressly told that the questions were not mandatory, and they could decline anyone they didn't feel comfortable answering. They were also told of how their data will be stored, used and the process of data disposal was also mentioned. Their data was stored securely and disposed confidentially within a short period of time in accordance with Act (1998).

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Data availability statement

The authors confirm that the data supporting the findings of this study are available within the article and/or its [supplementary materials](#). Any additional data such as anonymized manuscript are available on request from the corresponding author, C.O.

References

- Ács, Z. J., Autio, E., & Szerb, L. (2014). National systems of entrepreneurship: measurement issues and policy implications. *Research Policy*, 43(3), 476–494. <https://doi.org/10.1016/j.respol.2013.08.016>
- Act, D. P. (1998). Data protection act. *London Station Off*, 5.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, 26(9), 1113–1127. <https://doi.org/10.1080/08870446.2011.613995>
- Beach, D. (2020). Process tracing methods. In *Handbuch Methoden der Politikwissenschaft*. (pp. 699–719). Springer VS.
- Beach, D., & Pedersen, R. B. (2019). *Process-tracing methods: Foundations and guidelines*. The University of Michigan Press. Emerald Group Publishing.
- Berger, P. L., & Luckmann, T. (1967). Aspects sociologiques du pluralisme. *Archives de Sciences Sociales Des Religions*, 23(1), 117–127. <https://doi.org/10.3406/assr.1967.2621>
- Bloemen-Bekx, M., Voordeckers, W., Remery, C., & Schippers, J. (2019). Following in parental footsteps? The influence of gender and learning experiences on entrepreneurial intentions. *International Small Business Journal: Researching Entrepreneurship*, 37(6), 642–663. <https://doi.org/10.1177/0266242619838936>
- Bruderl, J., Preisendorfer, P., & Ziegler, R. (1998). Survival chances of newly founded business organizations. *American Sociological Review*, 57(2), 227–302. <https://doi.org/10.2307/2096207>

- Bruner, R. F. (2001). Repetition is the first principle of all learning. Available at SSRN 224340.
- Bruyat, C., & Julien, P. A. (2001). Defining the field of entrepreneurship research. *Journal of Business Venturing*, 16(2), 165–180. [https://doi.org/10.1016/S0883-9026\(99\)00043-9](https://doi.org/10.1016/S0883-9026(99)00043-9)
- Chan, S., & Chan, S. (2021). 'Learning as Becoming' and Processes of 'Learning to Become' and the Role of Technology-Enhanced Learning (TEL) to Support the Process. Digitally Enabling 'Learning by Doing' in Vocational Education: Enhancing 'Learning as Becoming' Processes, pp.15–27.
- Chen, S. H., Wang, W. T., & Lu, C. T. (2021). *Exploring the development of entrepreneurial identity in a learning-by-doing entrepreneurial project environment*. Education+Training.
- Chukwuma-Nwuba, E. O. (2019). *The effect of entrepreneurship education programme on Nigerian graduates' entrepreneurial intentions*. [Doctoral dissertation]. University of Northampton.
- Collins, A., Brown, J. S., & Holum, A. (1991). Cognitive apprenticeship: Making thinking visible. *American Educator*, 15(3), 6–11.
- Dannreuther, C., & Perren, L. (2012). *The political economy of the small firm*.
- Deakins, D., & Freel, M. (1998). Entrepreneurial learning and the growth process in SMEs. *The Learning Organization*, 5(3), 144–155. <https://doi.org/10.1108/09696479810223428>
- Deissinger, T., Smith, E., & Pickersgill, R. (2006). Models of full-time and part-time vocational training for school-leavers: A comparison between Germany and Australia. *International Journal of Training Research*, 4(1), 30–50. <https://doi.org/10.5172/ijtr.4.1.30>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. <https://doi.org/10.2307/2095101>
- Duchesneau, D. A., & Gartner, W. B. (1990). A profile of new venture success and failure in an emerging industry. *Journal of Business Venturing*, 5(5), 297–312. [https://doi.org/10.1016/0883-9026\(90\)90007-G](https://doi.org/10.1016/0883-9026(90)90007-G)
- Egan, B. A. (2004). Constructing a professional identity: Some preliminary findings from students of early years education. *European Early Childhood Education Research Journal*, 12(2), 21–32. <https://doi.org/10.1080/13502930485209401>
- Ekweke, N. (2021). A Nigerian model for stakeholder capitalism. *Harvard Business Review*, 19, 3–5.
- European Commission. (2012). Directorate-general for employment, social affairs and inclusion IKEI research and consultancy (firm). *Apprenticeship Supply in the Member States of the European Union*.
- European Commission. Directorate-General for Employment, Social Affairs and Inclusion IKEI Research and Consultancy (Firm). (2012). *Apprenticeship supply in the member states of the European Union*.
- Friedland, R., & Alford, R. A. (1991). Bringing society back in: Symbols, practices and institutional contradictions. In W. W. Powell & P. DiMaggio (Eds.), *The new institutionalism in organizational analysis* (pp. 232–263). University of Chicago Press.
- George, A. L., & Bennett, A. (2005). *Case studies and theory development in the social sciences*. MIT Press.
- Gessler, M. (2019). Concepts of apprenticeships: Strengths, weaknesses and pitfalls. In McGrath et al. (Eds.), *Handbook of vocational education and training*. Springer Nature.
- Hayes, C. T., Fitzsimmons, J. N., Boyle, E. A., McGee, D., Anderson, R. F., Weisend, R., & Morton, P. L. (2015). Thorium isotopes tracing the iron cycle at the Hawaii Ocean Time-series Station ALOHA. *Geochimica et Cosmochimica Acta*, 169, 1–16. <https://doi.org/10.1016/j.gca.2015.07.019>
- Hilpinen, R. (2011). Artifact. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*.
- Illeris, K. (2002). *The three dimensions of learning: Contemporary learning theory in the tension field between the cognitive, the emotional and the social*. NIACE.
- Iwara, I. O., Amaechi, K. E., & Netshandama, V. (2019). The Igbo-boi apprenticeship approach: Arsenal behind growing success of Igbo entrepreneurs in Nigeria. *Ubuntu: Journal of Conflict Transformation*, SI(1), 227–250. <https://doi.org/10.31920/2050-4950/2019/SIn1a13>
- Kanu, I. A. (2019). Igwebuikconomics: The Igbo apprenticeship system for wealth creation. *Villanova Journal of Science, Technology and Management*, 5(4), 56–68.
- Kassean, H., Vanevenhoven, J., Liguori, E., & Winkel, D. E. (2015). Entrepreneurship education: a need for reflection, real-world experience and action. *International Journal of Entrepreneurial Behavior & Research*, 21(5), 690–708. <https://doi.org/10.1108/IJEBR-07-2014-0123>
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. (Vol. 1). Prentice-Hall.
- Lackéus, M. (2015). Entrepreneurship in education: What, why, when, how. *Background Paper*, 2–27.
- Lackéus, M. (2020). Comparing the impact of three different experiential approaches to entrepreneurship in education. *International Journal of Entrepreneurial Behavior & Research*, 26(5), 937–971. <https://doi.org/10.1108/IJEBR-04-2018-0236>
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45(1), 79–122. <https://doi.org/10.1006/jvbe.1994.1027>
- Lockyer, J., Chukwuma-Nwuba, E. O., Irene, B., & Basuki, W. (2024). *The inculcation of entrepreneurship into tertiary education: An evaluation of the impact of policy-driven entrepreneurship education in emerging economies*. In *Entrepreneurship education and internationalisation* (pp. 208–229). Routledge.
- Lorenz, S. R. (2012). *Visionary mimesis: Imitation and transformation in the German enlightenment and Russian realism*. University of California.
- March, J. G. (1991). Exploitation and exploration in organisational learning. *Organisation Science*, 2(1), 71–87.

- MG Modern Ghana. (2019). *MG Modern Ghana: Business and finance*. <https://www.modernghana.com/news/455846/africans-most-entrepreneurialgroups.html>
- Miettinen, R. (2001). Artifact mediation in Dewey and in cultural-historical activity theory. *Mind, Culture, and Activity*, 8(4), 297–308. https://doi.org/10.1207/S15327884MCA0804_03
- Mizruchi, M. S., & Fein, L. C. (1999). The social construction of organizational knowledge: A study of the uses of coercive, mimetic, and normative isomorphism. *Administrative Science Quarterly*, 44(4), 653–683. <https://doi.org/10.2307/2667051>
- Nnonyelu, N. (2020). Reimagining Igbo apprenticeship: Bringing it up to speed with contemporary realities. *European Journal of Business and Management Research*, 5(3), 2–6. <https://doi.org/10.24018/ejbm.2020.5.3.327>
- OECD. (2015). *Students, computers and learning: making the connection*. OECD Publishing. <https://doi.org/10.1787/9789264239555-en>
- Olutayo, O. A. (1999). The Igbo entrepreneur in the political economy of Nigeria. *African Study Monographs*, 20(3), 147–174.
- OM. (2012). European Commission: Entrepreneurship 2020 action plan. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:en:PDF>
- Onwuegbuzie, H. (2017). Learning from the past: Entrepreneurship through apprenticeship for more successful outcomes. *Advances in Economics and Business*, 5(5), 280–287. <https://doi.org/10.13189/aeb.2017.050505>
- Orugun, J. J., & Nafiu, A. T. (2014). An exploratory study of Igbo entrepreneurial activity and business success in Nigeria as the panacea for economic growth and development. *International Journal of Scientific and Technology Research*, 3(9), 158–165.
- Petkova, A. P. (2009). A theory of entrepreneurial learning from performance errors. *International Entrepreneurship and Management Journal*, 5(4), 345–367. <https://doi.org/10.1007/s11365-008-0075-2>
- Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship Theory and Practice*, 29(4), 399–424. <https://doi.org/10.1111/j.1540-6520.2005.00091.x>
- Poortman, C., & Brown, C. (2023). *The teacher's guide to successful professional learning networks: Overcoming challenges and improving student outcomes*. McGraw-Hill Education.
- Reuber, R. A., & Fischer, E. M. (1999). Understanding the consequences of founder' experience. *Journal of Small Business Management*, 37(2), 30–45.
- Romanelli, E., & Schoonhoven, K. (2001). The local origins of new firms. In E. Romanelli, & K. Schoonhoven (Eds.), *The entrepreneurial dynamic*. (pp. 40–67). Stanford University Press.
- Ronstadt, R. (1988). The Corridor principle. *Journal of Business Venturing*, 3(1), 31–40. [https://doi.org/10.1016/0883-9026\(88\)90028-6](https://doi.org/10.1016/0883-9026(88)90028-6)
- Santos, S. C., Costa, S. F., Neumeyer, X., & Caetano, A. (2016). Bridging entrepreneurial cognition research and entrepreneurship education: what and how. In M. H. Morris & E. Liguori (Eds.), *Annals of entrepreneurship education and pedagogy*. (pp. 83–108). Edward Elgar.
- Sapienza, H. J., & Grimm, C. M. (1997). Founder characteristics, start-up process, strategy/structure variables as predictors of shortline railroad performance. *Entrepreneurship Theory and Practice*, 22(1), 5–24. <https://doi.org/10.1177/104225879702200101>
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *The Academy of Management Review*, 26(2), 243–263. <https://doi.org/10.2307/259121>
- Selfe, C. L. (1985). An apprehensive writer composes. When a writer can't write: Studies in writer's block and other composing-process problems. (pp. 83-95). Ed. Mike Rose. NMY: Guilford. *Innovation Policy and the Economy*, 10(1), 57–81.
- Shepherd, D. A., Douglas, E. J., & Shanley, M. (2000). New venture survival: Ignorance, external shocks, and risk reduction strategies. *Journal of Business Venturing*, 15(5-6), 393–410. [https://doi.org/10.1016/S0883-9026\(98\)00032-9](https://doi.org/10.1016/S0883-9026(98)00032-9)
- Shepherd, D. A., & Patzelt, H. (Eds.). (2018). *Prior knowledge and entrepreneurial cognition*. Entrepreneurial Cognition. https://doi.org/10.1007/978-3-319-71782-1_2
- Sine, W. D., & David, R. J. (2010). Institutions and entrepreneurship (pp. 1–26). Emerald Group Publishing Limited.
- Smallbone, D., & Welter, F. (2006). Institutional development and entrepreneurship in a transition context. In *Developmental entrepreneurship: Adversity, risk, and isolation* (pp. 37–53). Emerald Group Publishing Limited.
- Smith, E., & Kemmis, R. B. (2013). Good practice principles in apprenticeship systems: An international study. *The Online Journal for Technical and Vocational Education and Training in Asia*, 1, 1–12.
- Smith, E., Tuck, J., & Chatani, K. (2018). *ILO survey report on the national initiatives to promote quality apprenticeships in G20 countries*. International Labour Organization.
- Smits, W. (2006). The quality of apprenticeship training. *Education Economics*, 14(3), 329–344. <https://doi.org/10.1080/09645290600777543>
- Smolka, K. M., Geradts, T. H. J., van der Zwan, P. W., & Rauch, A. (2023). Why bother teaching entrepreneurship? A field quasi-experiment on the behavioral outcomes of compulsory entrepreneurship education. *Journal of Small Business Management*, 62(5), 2396–2452. <https://doi.org/10.1080/00472778.2023.2237290>
- Soelberg, F., Botha, M., Moos, M. N., & Stokvik, H. (2024). Creating value through entrepreneurial learning and education. *The Southern African Journal of Entrepreneurship and Small Business Management*, 16(1), 851. <https://doi.org/10.4102/sajesbm.v16i1.851>

- Soliman, S. (2023). Vocational education and training (VET) development and social dialogue in Egypt: A historical institutional perspective. *Journal of Vocational Education & Training*, 1–32. <https://doi.org/10.1080/13636820.2023.2258496>
- Sullivan, R. (2000). Entrepreneurial learning and monitoring. *International Journal of Entrepreneurial Behaviour & Research*, 6(3), 160–175.
- Thornton, P. H., & Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology*, 105(3), 801–843. <https://doi.org/10.1086/210361>
- Thornton, P. H., Ocasio, W., & Lounsbury, M. (2012). *The institutional logics perspective: A new approach to culture, structure and process*. OUP Oxford.
- Tummons, J. (2022). Knowledge, expertise, craft, and practice: Becoming and being a cycle technician. *Journal of Vocational Education & Training*, 76(4), 928–945. <https://doi.org/10.1080/13636820.2022.2132527>
- Vygotsky, L. S. (1925). *Consciousness as a problem in the psychology of behavior*. (Vol. 8, pp. 251–281). N. Veresov, (Trans.). European Studies in the History of Science and Ideas.
- Wang, C. L., & Chugh, H. (2014). Entrepreneurial learning: Past research and future challenges. *International Journal of Management Reviews*, 16(1), 24–61. <https://doi.org/10.1111/ijmr.12007>
- Zaman, R., Jain, T., Samara, G., & Jamali, D. (2022). Corporate governance meets corporate social responsibility: Mapping the interface. *Business & Society*, 61(3), 690–752. <https://doi.org/10.1177/0007650320973415>