PROMOTING LIFELONG LEARNING AND NEEDS ASSESSMENT FOR UPSKILLING NON-ENGLISH-SPEAKING YORUBA ENTREPRENEURS THROUGH INNOVATIVE OPEN ENTREPRENEURSHIP EDUCATION IN LAGOS, NIGERIA

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Abstract

Entrepreneurship Education (EE) and the philosophy of Lifelong Learning are globally recognised as vital drivers of economic transformation and sustainable development. In Nigeria, these concepts are increasingly embraced. However, non-English-speaking entrepreneurs, particularly those operating in the informal sector, are often excluded from capacity-building initiatives in entrepreneurship due to persistent language barriers. To address this gap, a needs assessment study was conducted among non-English-speaking Yoruba business owners in Lagos State, Southwest Nigeria. Adopting a descriptive survey research design, the study focused on Yoruba-speaking traders who have internet-enabled smartphones and possess basic digital skills to operate such devices. A purposive sampling technique was used to select 240 participants from twelve markets across Lagos. Data were collected using an online Needs Assessment Questionnaire developed in the Yoruba language. Section A of the instrument captured the demographic information, while Section B was a four-point Likert scale questionnaire. It was used to examine the challenges encountered in accessing entrepreneurship education and their readiness to participate in Innovative and Open Entrepreneurship Education delivered in Yoruba. The questionnaire was subjected to content validation through experts in Yoruba language, and Measurement and Evaluation. The reliability coefficient computed through ordinal alpha yielded 0.86. The analysed data revealed that 96.8% of the respondents among NESYE owned internet enabled smartphone while 85.6% expressed readiness for entrepreneurship education if rendered in Yoruba language. Among other recommendations, it was suggested that EE should be rendered in all the major languages in the country to promote transformative and sustainable economic development.

Keywords: Entrepreneurship Education, Yoruba Language, Non-English-Speaking Entrepreneurs, Traders

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Introduction

Globally, education has long been recognised as a primary agent of change, transformation, and societal advancement. It transcends geographical boundaries, time, and age, providing a consistent foundation for personal development and collective progress. Education's role is not limited to formal school settings, it extends throughout life, empowering individuals to adapt, innovate, and thrive in an ever-evolving world. This idea of lifelong learning forms the bedrock of modern educational policies and developmental strategies across nations (UNESCO, 2021; Lackéus & Williams, 2020). Among the many domains where education proves essential, entrepreneurship education stands out as a transformative discipline. According to Akpan (2021) and Secundo et al. (2021), entrepreneurship education is a dynamic and interdisciplinary field aimed at equipping learners with the skills, mindset, and competencies to recognise opportunities, solve problems, and contribute meaningfully to socioeconomic development. It fosters traits such as creativity, critical thinking, resilience, and adaptability. These attributes are crucial in today's digital and globally interconnected economy.

Entrepreneurship education entails a structured learning process designed to help individuals develop the knowledge, skills, attitudes, and behaviours needed to create, grow, and manage innovative business ventures (Lackéus, 2024; OECD, 2021). These entrepreneurial ventures typically involve unique value creation through new products, services, or business models. As noted by Hisrich, Peters, and Shepherd (2020), such ventures are often characterised by innovation, risk-taking, and opportunity recognition—key elements in today's uncertain and rapidly changing markets.

The global emphasis on entrepreneurship education is driven by its proven potential to drive innovation, economic growth, and job creation. In developing regions like sub-Saharan Africa, where government employment is limited, entrepreneurship offers an alternative path to self-reliance and economic empowerment. The World Economic Forum (2022) emphasises that entrepreneurship fosters economic dynamism and resilience, particularly among youth and marginalised populations. The Citi Foundation (2022) adds that entrepreneurship education instils critical problem-solving abilities, which are essential for survival and success in increasingly competitive economies. The core elements of effective entrepreneurship education include idea generation, business planning, innovation, risk management, opportunity identification, and financial/digital literacy (European Commission, 2016). These components are particularly relevant in African nations such as Nigeria, which is facing significant youth unemployment and untapped human potential.

Nigeria, Africa's most populous nation, represents a striking case study. Despite its rich human capital and entrepreneurial spirit, many Nigerians, particularly those in the informal sector, lack access to modern entrepreneurship education. This gap becomes more pronounced considering the country's demographic realities: a youthful population, widespread underemployment, and limited formal employment opportunities. Entrepreneurship education can play a transformative role here by

cultivating not just business acumen, but also an entrepreneurial mindset. This mindset enables individuals to innovate within existing structures—whether in public service, corporate roles, or community leadership, thereby expanding the scope of entrepreneurship beyond the traditional boundaries of business ownership (Talmage, 2021; Baltador & Popescu, 2023). Moreover, given that education is a lifelong endeavour, there is a strong argument for extending entrepreneurial training to informal traders, artisans, and market women, many of whom have no formal education but possess decades of practical business experience. These individuals form the economic backbone of many communities and play a vital role in local value chains (Matoka & Mwange, 2024; Dungrit, Bahago, & Gotip, 2022).

Entrepreneurship is widely recognised as a cornerstone of sustainable development. When properly harnessed, it fosters inclusive growth, reduces unemployment, and promotes innovation and productivity. Through education, individuals are empowered not only to improve their livelihoods but also to contribute to job creation and social progress (Adelowo & Henrico, 2025; Nigerian Economic Summit Group, 2023). According to the Brookings Institution (2024), entrepreneurship directly contributes to achieving multiple Sustainable Development Goals (SDGs), such as SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 8 (Decent Work and Economic Growth), and SDG 9 (Industry, Innovation, and Infrastructure). Notably, entrepreneurship education has made great strides in promoting gender equality. Programs supporting "womenpreneurship" across Africa have proven effective in closing the gender gap in business ownership and financial independence (Seedstars, 2023).

However, despite its celebrated benefits, entrepreneurship education faces critical challenges—particularly in Africa. These include theoretical overemphasis, outdated curricula, lack of qualified trainers, insufficient infrastructure, and policy fragmentation. Kuratko (2017) highlights the urgent need to replace traditional, lecture-based methods with hands-on, experiential learning models that prepare learners for real-world challenges. A significant barrier is the exclusion of non-English-speaking entrepreneurs, many of whom dominate Nigeria's informal sector. These traders and artisans, though proficient in their crafts, often lack the digital and communication skills necessary to succeed in today's technology-driven economy. Their exclusion from formal training programs, most of which are offered in English, limits their ability to scale and innovate.

The informal sector, comprising activities not regulated by the state, accounts for an estimated 57.7% of Nigeria's GDP and employs over 80% of the labour force (NBS, 2021; ILO, 2022). From small-scale vendors and mobile service providers to traditional craftspeople, this sector drives local economies and sustains millions of livelihoods. Yet, it is marked by challenges such as low productivity, lack of access to credit, and exposure to economic shocks. Despite their importance, many informal sector actors are underserved by formal institutions due to their linguistic and educational limitations. Entrepreneurship training programs like YouWin, N-Power, and BOI initiatives are typically delivered in English, thereby excluding non-English-literate individuals who operate primarily in Yoruba, Igbo, or Hausa. With

the shift to online platforms, digital and language barriers combine to further marginalise these entrepreneurs (Dlodlo, 2021; FasterCapital, 2023).

In practice, this exclusion reduces their chances of understanding government regulations, financial tools, and market dynamics. It limits their participation in incubators, grants, and trade events. As a result, the economic inequality gap widens, with educated urban entrepreneurs benefiting from development programs while rural and semi-urban entrepreneurs are left behind (Odekunbi, 2025). Thus, there is a compelling need to rethink entrepreneurship education by adopting inclusive models that consider linguistic diversity and informal learning contexts. Translating training content into indigenous languages, adopting open and distance learning (ODL), and integrating culturally relevant materials can bridge the gap. Research has shown that localised and context-aware training significantly boosts comprehension, retention, and application (Translation Africa, 2025). OECD (2021) also confirms that adult education and vocational skills development are central to economic recovery and inclusive growth, especially post-pandemic.

A 2022 joint survey conducted by the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and the National Bureau of Statistics (NBS) revealed that over 45% of micro-entrepreneurs in Nigeria cited language as a significant barrier to accessing government support services. This finding underscores a critical challenge in the Nigerian entrepreneurship ecosystem: the exclusion of non-English-speaking entrepreneurs from vital development opportunities. Language, in this context, is more than a means of communication; it is a fundamental gateway to education, empowerment, and inclusion. Addressing language barriers is therefore essential in democratising access to entrepreneurship education and fostering inclusive economic development. In a multilingual and multicultural society like Nigeria, language plays a central role in knowledge dissemination, learning, and access to economic opportunities. Ngota (2019) emphasised that language also embodies identity, culture, and worldview, and when used appropriately in learning contexts, it enhances understanding and engagement.

Delivering entrepreneurship education in a language that learners do not fully comprehend significantly reduces the effectiveness of such programs. Participants often struggle with cognitive overload, minimal participation, and misinterpretation of core concepts. According to UNESCO (2016), learning is most effective when delivered in learners' first languages, especially during foundational learning stages. Nigeria is home to over 250 languages, but Hausa, Igbo, and Yoruba account for the majority of native speakers. This study specifically targets non-English-speaking Yoruba traders and artisans in the southwestern states, recognising their unique position within the informal economy. Despite their entrepreneurial potential, many of these individuals remain excluded from formal training and business development programs due to language barriers and limited digital literacy.

Some African countries have made strides in addressing the language gap in entrepreneurship education. For example, initiatives like the Ajumose Business Hub

in Ibadan, Nigeria, and Ghana's National Board for Small Scale Industries (NBSSI) have piloted local language-based training programs (OpenLab Hamburg, 2017). Similarly, the Digital Agriculture Training in Northern Nigeria, a collaboration between GIZ and the National Agricultural Extension Program—achieved notable success in bridging digital and linguistic divides among rural farmers (GIZ, 2023). However, these initiatives largely operated within limited scopes and did not fully leverage digital platforms to expand their reach.

This study takes a more expansive and innovative approach by proposing the use of Open and Distance Education (ODE) to deliver entrepreneurship training in the Yoruba language. ODE is a flexible and inclusive educational philosophy that transcends the constraints of location, time, and traditional classroom settings. Driven by information and communication technologies (ICTs), ODE allows learners to engage with educational content at their own pace and on their own terms. Learning occurs through a combination of digital platforms, asynchronous content, and remote facilitation, making it particularly suitable for adults with busy schedules or limited mobility.

A core strength of ODE is its capacity to accommodate diverse learning styles and reach large, geographically dispersed audiences. This mode of education is already proving effective across Africa, where mobile phone penetration is rising, and internet access is becoming increasingly widespread (UNDP, 2023). According to UNESCO (2021), ODE enhances inclusion, especially for marginalised populations who are typically excluded from traditional educational institutions.

In Nigeria, the National Open University of Nigeria (NOUN) stands out as a leading provider of open and distance learning. The university, through its Directorate for Entrepreneurship and General Studies, has developed several initiatives aimed at promoting entrepreneurship education. The current study, aimed at removing language barriers for non-English-speaking Yoruba entrepreneurs (NESYE), was initiated as part of NOUN's commitment to inclusive and lifelong learning. The first phase of this initiative was a needs assessment survey carried out across Lagos state in southwestern Nigeria where Yoruba is predominantly spoken. Lagos is chosen for its huge commercial activities and cosmopolitan nature.

The study was premised on Constructivist Learning Theory, Diffusion of Innovations Theory, and Human Capital Theory. Constructivist Learning Theory, as developed by scholars such as Jean Piaget and Lev Vygotsky, posits that learners construct knowledge actively, rather than passively receiving it. Learning is more effective when it builds on prior knowledge, cultural context, and lived experience. This theory is particularly relevant for adult learners, such as market women and artisans, who benefit from real-life, problem-solving scenarios. When entrepreneurship content is delivered in Yoruba and linked to their everyday business realities, learners are more likely to understand, internalise, and apply new skills.

Diffusion of Innovations Theory, developed by Everett Rogers (1962), explains how new ideas and technologies spread through social systems over time. Rogers' framework highlights the roles of communication channels, time, and social influence in the adoption of innovations. The study by Oladipo, Adeoye, and Eze on mobile learning among market women in Lagos in the year 2022 affirmed the theory noting that trust in social networks and perceived usefulness of digital tools are key drivers of adoption.

The Human Capital Theory, pioneered by Schultz (1961) and Becker (1964), posits that individuals and societies benefit economically from investments in education and skills development. Education enhances productivity, employability, and earning potential. When entrepreneurship education is delivered in the Yoruba language through digital platforms, it opens doors for underserved individuals to transition into the formal economy, improve their livelihoods, and contribute to national development. It also promotes equity by investing in human capital that has traditionally been overlooked.

Research Questions

i. What is the demographic profile of the non-English speaking Yoruba (NESYE) traders in Lagos state?
ii. To what extent do non-English-speaking Yoruba entrepreneurs (NESYE) believe that their inability to communicate in English limited their access to formal entrepreneurship education?
iii. How willing and prepared are NESYE to engage in entrepreneurship education delivered in Yoruba language through an open education system?
iv. Are NESYE open to improving their knowledge on the use of digital and social media tools if they participate in entrepreneurship education offered in Yoruba language?
v. What mindset do the NESYE have about learning entrepreneurship concepts such bookkeeping, budgeting, record keeping, financial management etc.?

To achieve this, five research questions were raised, and three hypotheses were formulated to guide the investigation and future interventions.

Research Hypotheses

Ho1: There is no significant difference in the readiness to participate in digital entrepreneurship education between traders who own smartphones and those who do not.
Ho2: There is no significant relationship between the traders' level of education and their perception of language as a barrier to entrepreneurship education.
Ho3: There is no significant difference among age groups in their willingness to enrol in Yoruba-language entrepreneurship education delivered online.

Methodology

The study employed a simple non-experimental descriptive survey research design. The target population was made up of the non-English speaking Yoruba Entrepreneurs

(NESYE), i.e., traders and artisans who operate within Lagos state market system and different artisan associations. Purposive sampling technique was adopted to select 400 participants from 20 prominent markets across the 20 Local Government Area of Lagos. The most considered variable was the possession of a functional internet enabled smartphones with basic operational skills. Data collection was carried out through a Needs Assessment Questionnaire titled "Challenges Confronting Traders and Readiness to Upskill through Entrepreneurship Education in Yoruba Language *(Iwadi Lori Ipenija ti o Dojuko Awon Onisowo ati Igbaradi fun Ikeko Lori Ona Abayo oni Ede Yoruba)*. The structured questionnaire, which was rendered through Google form and in Yoruba language was divided into section A and B. Section A consist of the demographic information of the artisans and traders such as age, gender, educational background, previous training attended, number of years business etc. while section B comprised of 15-item questionnaire on four-point Likert scale which addressed the challenges hindering business growth, and readiness to engage in entrepreneurship education through the Directorate of Entrepreneurship and General Studies, the National Open University of Nigeria (NOUN).

The content of the questionnaire was further recorded as voice note and sent along the questionnaire to aid the understanding of the respondents. Four research assistants were also deployed to guide the traders in their responses to the online form. The research instrument was subjected to content validation through experts in Yoruba language, Measurement & Evaluation, and Entrepreneurship Studies. The reliability coefficient of the questionnaire was determined through ordinal alpha and yielded and impressive value of 0.87. Descriptive statistics of percentages, mean and standard deviation was used to respond to the four research questions while inferential statistics of t-test, one-way ANOVA and Spearman Rank Order Correlation was employed to test the hypotheses at 0.05 significant level.

Results and Interpretation
Research Question 1

See Table 1 in Appendix

The demographic profile revealed different characteristics and views of the 409 traders and artisans who participated in the study. 12 respondents representing (2.9%) were between 18 and 25 years, 43 (10.5%) were between 26 and 35 years, 150 (36.7%) were between 36 and 45 years, while 204 (49.9%) were aged 46 and above. 316 of the respondents were of female gender, representing 77.3% while the male traders and artisan were just 22.7%. It was further revealed that 20 respondents (4.9%) had no formal education, 30 (7.3%) had primary education, 132 (32.3%) had secondary education, and 227 (55.5%) had tertiary education. On the nature of business, 301 respondents (73.6%) were traders, while 108 (26.4%) were artisans. The findings showed that 56 respondents (13.7%) had been in business for 1–5 years, 110 (26.9%) for 6–10 years, 130 (31.8%) for 11–20 years, and 113 (27.6%) for 21 years and above. 396 (96.8%) of the traders have internet-enabled smartphone while 13 (3.2%) did not.

Regarding previous exposure to entrepreneurship education, 245 respondents, representing 59.9% claimed to have received training on entrepreneurship while 164 (40.1%) had not. Among those who received training, 213 (52.1%) were trained by the government, 75 (18.3%) by non-governmental organisations, and 121 (29.6%) had never received any formal training on business

However, 350 respondents (85.6%) expressed interest in participating in entrepreneurship education if it is rendered in Yoruba Language without leaving their business premises, while 55 (13.4%) were not interested. The study reveals that the majority of non-English-speaking Yoruba entrepreneurs (NESYE) in Lagos are middle-aged, female, and relatively well-educated, with over half holding tertiary education. Most are traders with over 10 years of business experience, yet many have limited access to formal entrepreneurship education. Despite this, a high proportion (96.8%) own internet-enabled smartphones, indicating strong potential for mobile-based learning. Language remains a key barrier, not literacy, as many prefer instruction in Yoruba. Although 59.9% have received previous training, gaps in outreach remain, especially among women and artisans. Encouragingly, 85.6% expressed interest in non-disruptive, business-friendly learning formats. These findings support the need for flexible, open, and localised entrepreneurship education in Yoruba, delivered via digital platforms. Tailoring content to fit cultural and practical realities can bridge knowledge gaps, foster inclusion, and promote sustainable development in Nigeria's informal sector.

Table 2: Descriptive analysis of Section B of the Questionnaire

	Item Description	**Agree (%)**	**Disagree (%)**
1	English language barrier limits access to entrepreneurship education	139 (34.7%)	261 (65.3%)
2	Lack of EE affects business growth	143 (35.7%)	257 (64.3%)
3	Entrepreneurship programs are inaccessible to non-English speaker	217 (54.3%)	183 (45.7%)
4	English Language barrier affects my understanding of bookkeeping, budgeting, and planning	127 (31.8%)	273 (68.2%)
5	Lack of EE affects access to loans/grants	173 (43.3%)	227 (56.7%)
6	Lack of formal EE knowledge limits business solutions	158 (39.6%)	202 (50.4%)
7	Poor EE causes low use of digital/social media	256 (64.1%)	144 (35.9%)
8	Readiness to learn through EE in Yoruba	326 (81.4%)	74 (18.6%)
9	Interested in learning the use of digital tools in EE	349 (87.3%)	51 (12.7%)
10	Interested in learning the use of WhatsApp/TikTok/Facebook for business	354 (88.5%)	46 (11.5%)
11	Interested in improving bookkeeping and financial management through EE in Yoruba Language	366 (91.5%)	34 (8.5%)
12	Believe Yoruba-based EE will improve business performance	338 (84.6%)	62 (15.4%)

Extract from Research Question 2

The findings from Items 1, 3, and 4 provide a vivid understanding of NESYE's perceptions regarding the English language barrier. In Item 1, only 34.7% of respondents agreed that the English language barrier limits their access to entrepreneurship education, while a significant 65.3% disagreed. Similarly, in Item 4, 31.8% believed that English language affected their understanding of key business concepts such as bookkeeping, budgeting, and planning, whereas 68.2% disagreed. However, in contrast, Item 3 revealed that a majority (54.3%) agreed that entrepreneurship programs delivered in English are inaccessible to non-English speakers, suggesting that while many may not perceive language as a personal limitation, they recognise it as a structural barrier for others. On the whole, these responses suggest a moderate perception among NESYE that English poses a barrier to accessing entrepreneurship education—more so at the programmatic level than at the personal level—possibly due to the presence of bilingual abilities among many respondents.

Extract from Research Question 3

The responses to Items 8 and 12 clearly demonstrate a strong readiness and positive disposition among NESYE toward entrepreneurship education (EE) delivered in the Yoruba language. In Item 8, 81.4% of respondents expressed willingness to participate in EE if delivered in Yoruba, indicating a high level of openness to learning in their native language, particularly if the education model allows them to learn without leaving their business premises. Additionally, in Item 12, 84.6% of respondents agreed that entrepreneurship education in Yoruba would improve their business performance, reflecting not only willingness but also a strong belief in the value and relevance of localised instruction. These findings indicate that NESYE are highly willing and adequately prepared to engage in Yoruba-based EE through flexible, open education systems that accommodate their language preferences and business realities.

Extract from Research Question 4

The responses from Items 7, 9, and 10 provide clear insights into the digital readiness and interest of NESYE when supported by language-inclusive education. In Item 7, 64.1% of respondents acknowledged that poor entrepreneurship education is the reason for their low use of digital and social media tools, indicating that many recognise a gap in their current digital marketing and communication skills. Item 9 shows that 87.3% of the respondents are interested in learning how to use digital tools for business growth, and Item 10 further reveals that 88.5% are specifically interested in learning how to use platforms like WhatsApp, TikTok, and Facebook for advertising their businesses. These results demonstrate a strong openness and readiness among NESYE to embrace digital literacy, particularly when entrepreneurship education is delivered in Yoruba—a language they understand and engage with more confidently.

Extract from Research Question 5

The responses to Items 4, 5, and 11 offer valuable insight into the mindset of NESYE regarding foundational entrepreneurial concepts. In Item 4, only 31.8% of respondents agreed that language barriers hinder their understanding of concepts like bookkeeping, budgeting, and planning, while 68.2% disagreed, suggesting that many do not view language as a personal limitation to learning these skills—perhaps due to informal learning or basic literacy. However, Item 5 shows that 43.3% believe that lack of entrepreneurship education affects their ability to access loans and grants, indicating an awareness of the practical value of such knowledge in improving financial opportunities. Most notably, in Item 11, an overwhelming 91.5% expressed interest in improving their financial management and bookkeeping skills through entrepreneurship education delivered in Yoruba.

This reveals a highly positive mindset and strong willingness to learn these critical business concepts, especially when taught in a culturally and linguistically accessible manner. NESYE clearly recognise the value of these skills for business growth and sustainability and are eager to acquire them through appropriate educational channels.

Hypotheses Testing

Re-Ho1: *There is no significant difference in the readiness to participate in digital entrepreneurship education between traders who own smartphones and those who do not.*

Table 3: Mean and standard deviation of respondents' readiness to engage in digital entrepreneurship education between traders who owns smartphones and traders who do not.

Group Statistics					
	Do you have internet enabled smartphone?	N	Mean	Std. Dev	Std. Error Mean
I am interested in learning how to use digital tools for my business growth	Yes	396	1.4520	.92789	.04663
	No	13	1.3077	.48038	.13323
I am interested in learning how to use social media like WhatsApp, TikTok and Facebook to advertise my business	Yes	396	1.3990	.92908	.04669
	No	13	1.3077	.48038	.13323
Lack of education in entrepreneurship did not open me up to advertisement on social media, e-commerce platforms, and other digital marketing tools	Yes	396	2.8813	1.34204	.06744
	No	13	2.6154	.96077	.26647

An independent samples t-test was conducted using three key indicators of digital readiness: (1) interest in learning to use digital tools for business growth, (2) interest in learning to use social media platforms such as WhatsApp, TikTok, and Facebook for business promotion, and (3) perception that lack of entrepreneurship education limits exposure to digital marketing opportunities. The results in Table 3 and 4 showed that there was no statistically significant difference in the interest expressed between smartphone owners and non-owners across all three indicators. For the first indicator, the p-value was 0.577, which is greater than the 0.05 level of significance, indicating no significant difference in interest in learning digital tools between both groups. Similarly, for the second indicator, the p-value was 0.725, again exceeding the 0.05 threshold, confirming that both smartphone users and non-users shared similar levels of interest in using social media tools for business promotion. The third indicator produced a p-value of 0.479, which also falls above the 0.05 significance level, further affirming that perceptions around the limitations of entrepreneurship education in enabling digital marketing are not significantly different between the two groups.

These results suggest that ownership of a smartphone does not significantly influence traders' readiness to engage in digital entrepreneurship education. Both users and non-users expressed comparable levels of interest and willingness to acquire digital skills for business growth. This may indicate that even those without current access to smartphones recognise the value of digital tools and are open to acquiring such technologies and skills if entrepreneurship education is made accessible and culturally relevant—especially through open, Yoruba-language programs.

Table 4: The null hypothesis 1 was tested using an independent sample T-test across three readiness indicators

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff
I am interested in learning how to use digital tools for my business growth	Equal variances assumed	2.395	.123	.558	407	.577	.14433
	Equal variances not assumed			1.022	15.113	.323	.14433
I am interested in learning how to use social media like WhatsApp, TikTok and Facebook to advertise my business	Equal variances assumed	1.492	.223	.352	407	.725	.09130
	Equal variances not assumed			.647	15.121	.528	.09130
Lack of education in entrepreneurship did not open me up to advertisement on social media, e-commerce platforms, and other digital marketing tools	Equal variances assumed	6.458	.011	.708	407	.479	.26593
	Equal variances not assumed			.967	13.585	.350	.26593

Re-Ho2: *There is no significant relationship between the traders' level of education and their perception of language as a barrier to entrepreneurship education.*

Table 5: The null hypothesis 2 was tested using Spearman Rank-Order Correlation Coefficient

Relationship between educational level	**N**	**Spearman's rho**	**Sig. (2-tailed)**	**Correlation interpretation**
My inability to communicate in English language is a hindrance for entrepreneurship education	409	0.167	.001	Weak, positive, significant correlation

**. Correlation is significant at the 0.01 level (2-tailed).

A Spearman Rank-Order Correlation was conducted to examine the nature of association between educational level of respondents and their perception of English language as a hindrance to accessing entrepreneurship education. The result in Table 5 showed a Spearman's rho correlation coefficient of 0.167 with a p-value of 0.001. Since the p-value is less than the 0.01 level of significance, the result is statistically significant. This leads to the rejection of the null hypothesis, indicating that a significant relationship exists between educational level and the perception of language as a barrier.

However, the strength of the correlation is interpreted as weak and positive, suggesting that as the level of education increases, there is a slight tendency for individuals to perceive language (specifically English) as less of a barrier to accessing entrepreneurship education. This implies that individuals with higher educational attainment are more likely to be bilingual or comfortable with English, while those with lower levels of education are more likely to be affected by language-related limitations in formal training environments. This finding underscores the need for language-inclusive education programs, particularly for those with lower levels of education, and supports the proposal for entrepreneurship education delivered in Yoruba to bridge the accessibility gap in Nigeria's informal sector.

Re-Ho3: *There is no significant difference across age groups in willingness to enrol in Yoruba-language entrepreneurship education delivered online.*

Table 6: Mean and standard deviation of participants age groups based on their willingness to enrol in Yoruba language entrepreneurship education delivered online

Age	N	Mean	Std. Deviation
18-25	12	3.3333	.98473
26-35	43	1.9302	1.18312
36-45	150	1.5000	1.00835
46 and above	204	1.4755	.96459
Total	409	1.5868	1.05622

Table 7: Null hypothesis 3 was tested using inferential statistics, ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	45.334	3	15.111	14.933	.000
Within Groups	409.835	405	1.012		
Total	455.169	408			

As shown in Table 7, the ANOVA result produced an F-value of 14.933 with a significance level (p-value) of .000. Since the p-value is less than the 0.05 threshold, the result is statistically significant. Therefore, the null hypothesis (H_{03}) is rejected, indicating that there is a significant difference across age groups in their willingness to participate in online entrepreneurship education delivered in Yoruba language. Further insights from Table 6 show that the youngest group (18–25 years) had the highest mean score (3.33), indicating lower willingness. Meanwhile, respondents aged 26–35 had a mean of 1.93, while those aged 36–45 and 46 and above had lower means of 1.50 and 1.48, respectively. This suggests that older participants (36 and above) demonstrated greater willingness to enrol in Yoruba-language EE delivered online, compared to their younger counterparts, particularly the 18–25 age group, who were the least willing. This age-related difference in willingness may reflect the practical orientation and perceived relevance of the program to older entrepreneurs, many of whom are actively engaged in informal sector businesses and may see immediate value in localised, accessible training. Conversely, younger individuals—possibly with broader exposure to English or formal education—may prefer conventional or English-based programs. In summary, the analysis confirms that age is a significant factor influencing willingness to enrol in Yoruba-language entrepreneurship education delivered through digital platforms.

Discussion of Findings

This study assessed the readiness and challenges of non-English-speaking Yoruba entrepreneurs (NESYE) in Lagos State regarding their access to entrepreneurship education (EE), particularly when delivered in Yoruba and through digital, open learning platforms.

Demographic Insights show that the majority of NESYE are mature adults (86.6% aged 36 and above), predominantly female (77.3%), and surprisingly well-educated, with over 55% having tertiary education. These findings challenge stereotypes of informal sector actors as illiterate and highlight the need for inclusive education frameworks tailored to their unique profiles (Adelowo & Henrico, 2025; ILO, 2022).

Although 59.9% had received entrepreneurship training, gaps remain in delivery methods and language. Many noted that current programs—mostly in English—limit access. Specifically, 54.3% agreed that English-only EE programs are inaccessible to non-English speakers, even though only 34.7% personally identified language as a barrier, suggesting a systemic rather than individual issue. Importantly, 81.4% expressed readiness to participate in EE if delivered in Yoruba and without disrupting their businesses, confirming strong demand for culturally relevant and flexible learning. This supports UNESCO's (2016) claim that learning in one's first language enhances comprehension and engagement, especially in foundational and applied contexts.

Another critical finding is the overwhelming ownership of smartphones (96.6%), coupled with strong interest in learning how to use digital tools (87.3%) and platforms like WhatsApp, TikTok, and Facebook (88.5%) for business. This supports UNDP's

(2023) assertion that Africa's mobile penetration presents an untapped opportunity for digital entrepreneurship education.

Regarding financial and business skills, 91.5% showed interest in learning bookkeeping and financial management in Yoruba, affirming their understanding of the value of financial literacy in business sustainability.
The hypothesis tests further validate these insights:

i. No significant difference was found between smartphone owners and non-owners in digital learning readiness, indicating widespread digital aspiration regardless of access.
ii. A weak but significant correlation exists between educational level and perception of language barriers, affirming that those with less education are more likely to be excluded without language-adapted content.
iii. Age significantly influenced willingness to enrol in Yoruba-based digital EE, with older entrepreneurs more eager—perhaps due to immediate business relevance.

On the whole, these findings align with constructivist and human capital theories that emphasise contextualised, experience-driven, and skill-enhancing learning (Knowles, 1980; Becker, 1964; Rogers, 2003).

Conclusion

The study demonstrates that NESYE in Lagos State are not only ready but eager to engage in entrepreneurship education if it is delivered in their local language and through flexible digital platforms. Despite educational diversity and digital access disparities, interest in practical skills such as financial literacy and digital marketing is remarkably high. However, systemic barriers—especially language exclusivity in EE programs remain a challenge. Addressing these gaps through open, language-inclusive, and mobile-accessible learning solutions will improve access, enhance economic participation, and strengthen the informal sector's contribution to Nigeria's economy.

Recommendations

i. Develop and Implement Yoruba-Language Entrepreneurship Education Programs: Stakeholders in entrepreneurship development program, including government agencies, NGOs, and educational institutions, should design and deliver entrepreneurship education (EE) programs in the Yoruba language, and by extension other prominent languages in Nigeria. This will ensure better comprehension, inclusion, and engagement among non-English-speaking entrepreneurs in South-West Nigeria, especially among those in the informal sector.
ii. Leverage Mobile Technology and social media for Program Delivery: Given that 96.6% of respondents own internet-enabled smartphones, EE programs should be delivered via mobile-friendly platforms such as WhatsApp, YouTube, Telegram, and highly simplified Learning Management System

(LMS). Integrating voice notes, videos, and text in Yoruba will facilitate participation without disrupting entrepreneurs' daily business routines.

iii. Prioritise Digital Skills and Financial Literacy Training: Training modules should emphasise digital marketing, social media usage, and financial literacy, including bookkeeping, budgeting, and accessing loans. This responds directly to the skills most in demand by NESYE and will help modernise their business practices for greater sustainability and growth.

iv. Target Women-Specific Learning Needs in Program Design: With 77.3% of respondents being women, EE programs should incorporate flexible, inclusive content that addresses the unique challenges of female entrepreneurs, such as time constraints, limited formal education, and balancing domestic responsibilities with practical tools they can apply immediately.

v. Expand Access to Open Education Platforms with Localised Content: Institutions like National Open University of Nigeria, through the Directorate of Entrepreneurship and General Studies (DE&GS) and SMEDAN should open digital education platforms in indigenous language and ensuring culturally relevant and localised contents. This will bridge the gap between formal education and informal sector realities, especially for underserved entrepreneurs.

vi. Establish Continuous Awareness and Capacity-Building Campaigns: Despite the high interest, 29.6% of respondents had never received any form of EE training. Government and private-sector actors should launch regular community outreach and awareness campaigns to promote available EE opportunities—particularly those delivered in Yoruba and other indigenous languages.

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Apendix:

Table 1: Demographic profile of the non-English speaking Yoruba traders in Lagos state?

S/N	Descriptive	Frequency	Percentage	Valid Percentage	Cumulative Percentage
1.	**Age**				
	18-25 26-35 36-45 46 and above Total	12 43 150 204 409	2.9% 10.5% 36.6% 49.8% 99.8%	2.9% 10.5% 36.7% 49.9% 100.0%	2.9% 13.4% 50.1% 100.0%
2.	**Gender**				
	Male	93	22.7%	22.7%	22.7%
	Female	316	77.1%	77.3%	100.0%
	Total	409	99.8%	100.0%	
3.	**Highest Level of Education Received**				
	I have never attended school	20	4.9%	4.9%	4.9%
	Primary	30	7.3%	7.3%	12.2%
	Secondary	132	32.2%	32.3%	44.5%
	Tertiary	227	55.4%	55.5%	100.0%
	Total	409	99.8%	100.0%	
4.	**Nature of business**				
	Trading	301	73.4%	73.6%	73.6%
	Artisanship	108	26.3%	26.4%	100.0%
	Total	409	99.8%	100.0%	
5.	**How long have you been in this business?**				
	1-5 years	56	13.7%	13.7%	13.7%
	6-10 years	110	26.8%	26.9%	40.6%
	11-20 years	130	31.7%	31.8%	72.4%
	21 and above	113	27.6%	27.6%	100.0%
	Total	409	99.8%	100.0%	
6.	**Do you have internet enabled smart mobile phone?**				
	Yes	396	96.6%	96.8%	96.8%
	No	13	3.2%	3.2%	100.0%
	Total	409	99.8%	100.0%	Total%
7.	**Have you received entrepreneurship education in the past?**				
	Yes	245	59.8%	59.9%	59.9%
	No	164	40.0%	40.1%	100.0%
	Total	409	99.8%	100.0%	

8.	**Who sponsored the entrepreneurship education?**				
	The government	213	52.0%	52.1%	52.1%
	Non-governmental organisation	75	18.3%	18.3%	70.4%
	I have not received any facilitation	121	29.5%	29.6%	100.0%
	Total	409	99.8%	100.0%	
9.	**Do you have interest in entrepreneurship education without leaving your business premises?**				
	Yes	350	85.4%	85.6%	86.6%
	No	55	13.4%	13.4%	100.0%
	Total	409	99.8%	100.0%	