

**BUILDING THE SKILLS GAP IN HIGHER (TEACHER) EDUCATION THROUGH HANDS-ON SKILLS TRAINING: INVESTIGATING THE CONTRIBUTION OF THE FEDERAL COLLEGE OF EDUCATION GIDAN MADI ENTREPRENEURSHIP CENTER IN FOSTERING BUSINESS START-UPS AMONG STUDENTS**

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**ABSTRACT**

This study examines the contributions of the Federal College of Education (FCE) Gidan Madi Entrepreneurship Center in fostering business start-ups and promoting self-reliance among students. As a newly established teacher education institution aiming to become a model entrepreneurship hub, the center provides diverse skill-based training designed to equip students with competencies required for the modern economy. The center serves as an innovation and skill-incubation hub where students engage in hands-on training in areas such as tailoring, soap making, knitting, hair product formulation, air freshener production, and ICT. The high rate of unemployment in Nigeria has been largely attributed to the lack of practical skill acquisition in higher education, leaving many graduates without the capacity to establish sustainable enterprises. This study therefore investigates how hands-on skills training can bridge the gap between theoretical education and entrepreneurial practice. The research specifically evaluates the effectiveness of the center's training programs in enhancing students' entrepreneurial mindset, intention, and ability to start and sustain businesses. It also examines the alignment of these programs with national education policies and government initiatives aimed at reducing unemployment and promoting self-employment. A mixed-method approach was adopted, utilizing questionnaires administered to students and instructors, alongside interviews with stakeholders. The findings provide valuable insights into the role of practical entrepreneurship education in enhancing employability, fostering innovation, and supporting business start-ups among students in teacher training institutions.

**Keywords:** Skills Gap, Higher Education, Teacher Education, Hands-on Training, Entrepreneurship Center, Business Start-ups, Students.

## **1.0 INTRODUCTION**

Nigeria's persistent unemployment crisis and economic instability have increasingly exposed fundamental weaknesses in the country's educational system. One of the most critical challenges is the overemphasis on theoretical knowledge at the expense of practical and vocational skills. This imbalance has created a significant mismatch between graduates' competencies and the dynamic requirements of the modern labour market, leading to rising unemployment and underemployment among youths.

In response to this challenge, entrepreneurship education has gained recognition as a strategic tool for economic development and youth empowerment. Entrepreneurship education equips students with the knowledge, skills, attitudes, and mindset required to identify opportunities, innovate, and establish sustainable business ventures (Lawal & Jayeoba, 2023). It shifts the focus from job-seeking to job creation, thereby promoting self-reliance and reducing dependence on formal employment.

Institutions such as the Federal College of Education (FCE) Gidan Madi have taken proactive measures by establishing entrepreneurship centers that emphasize hands-on training. These centers provide practical skill acquisition in areas such as tailoring, soap making, ICT, and other vocational activities. This practical approach aligns with the growing emphasis on experiential learning, which enhances students' ability to apply knowledge in real-life situations (Fayolle & Gailly, 2008; Nabi et al., 2017).

The entrepreneurship centers are designed to:

- Bridge the gap between theoretical knowledge and practical application
- Promote self-employment and reduce graduate unemployment
- Enhance innovation, creativity, and economic participation among students

## **1.1 PROBLEM STATEMENT**

Entrepreneurship education has been widely recognized as a critical tool for fostering economic growth, innovation and self-reliance among graduates (Kuratko, 2020). However, in Nigeria, the conventional approach to entrepreneurship education in higher institutions, particularly in teacher education, remains largely theoretical with limited practical exposure to business start-up processes (Nabi et al, 2022). The high rate of unemployment and underdevelopment is therefore attributed to these gaps brought about by lack of employing practical learning approaches in transferring hands-on skills and business knowledge. Unfortunately, many graduates or school leavers lack the hands-on skill needed to compete favourably among their peers in the innovative labour market, or launch and sustain their own enterprises. The challenge posed by this study is on how to build or bridge the skills gap in higher (teacher) education through hands-on skills training and the possible contributions Federal College of Education Gidan Madi will offer in fostering business start-ups among students. The center aims to equip students with practical skills that can foster business start-ups after leaving school. However, empirical evidence on the effectiveness of such skills' training programme in fostering entrepreneurial innovations, and prospect has not been developed.

Furthermore, with the undisputed and magnificent contributions of entrepreneurship education through hands-on skills training serving as a key driver of entrepreneurship success, challenges yet abounds. These challenges are, insufficient funding, inadequate business support programmes, lack of mentorship, limited access to market, and

Given the compelling necessity to arm students with practical entrepreneurial skills to address the rising youth unemployment and to breed new crop of young entrepreneurs, this study is not only relevant but timely as well.

## **1.2 OBJECTIVE OF THE STUDY**

The growing emphasis on entrepreneurship education calls for re-alignment of our educational system from that of theoretical knowledge towards practical and empirical approaches so as to provide hands-on skills to the students to firstly make them innovative, self-employed and self-reliant and secondly to make them possess the right mental attitude necessary to identify and exploit opportunities fostering economic growth and innovation. The purpose of the study is to build the skills gap in higher (teacher) education through hands-on skills training and investigating the contributions of the Federal College of Education Gidan Madi entrepreneurship center in fostering business start-ups among students. More specifically, the study aimed to achieve the following specific research objectives.

- To examine the significance of hands-on skills training in bridging the entrepreneurship skill gaps in teacher education.
- To assess the impact of hands-on skills training on students 'entrepreneurial enthusiasm, passion and intention on one hand and business start-ups on the other hand.
- To investigate the huddles/threats confronting students in transforming the acquired entrepreneurial skills and knowledge into real, practical and sustainable enterprises.
- To evaluate the effectiveness of the entrepreneurship center's training programmes in fostering self-reliance and self-employment.

To provide policy recommendations for bolstering entrepreneurship education in teacher training institution for its value-chain and practical significance.

## **2.0 LITERATURE REVIEW**

### **2.1 Concept of Entrepreneurship**

Entrepreneurship education is the structured teaching of skills and competencies that help students identify opportunities and utilize it into something of value that translate into start-ups businesses and successfully manage and grow them. According to Akande (2021), Entrepreneurship Education involves a dynamic process of creating wealth through the process of creating something new and in the process, assumes both attendant risks and reward. This definition highlights the dual focus of entrepreneurship education on innovation and risk management. Furthermore, it emphasizes the importance of hands-on skills training in bridging the skill gaps in higher education. Akande M.T. (2021), ([herpnet.org.ng](http://herpnet.org.ng)). In more recent times, Solomon et al (2000) reviewed entrepreneurship pedagogy and concluded that it is changing based on a bordering market interest in entrepreneurship education. In addition to courses or programmes focused on preparing the future entrepreneurs, institutional methodologies are being developed for those who manage entrepreneurs in organizations potential resource people (accountants, lawyers, consultants) used by entrepreneurs and top managers who provide vision and leadership for corporations which must innovate in order to survive. Today's educators are

challenged with designing effective learning opportunities for entrepreneurship students. Entrepreneurship education has become a crucial component of higher education particularly in developing economies where graduate unemployment remains a challenge (Adebayo, 2021). The integration of entrepreneurship education in teacher training institution is critical to producing educators who can also become job creators (Oseni, 2023).

## **2.2 Entrepreneurship Education**

Entrepreneurship education refers to the structured process of equipping individuals with the skills and competencies necessary to identify opportunities and transform them into viable business ventures (Akande, 2021). It emphasizes experiential learning, where students engage in practical activities that simulate real-world business environments. Studies show that hands-on training enhances entrepreneurial competence, self-efficacy, and business readiness more effectively than theoretical instruction alone (Nabi et al., 2017; Fayolle & Gailly, 2008).

### **2.2.1 Importance of Entrepreneurship Education**

Entrepreneurship education contributes significantly to both individual and national development by:

- Promoting self-reliance and reducing dependence on formal employment.
- Reducing youth unemployment and poverty.
- Enhancing innovation and economic growth.
- Developing critical thinking, creativity, and resilience.

## **2.3 Government Policies/Schemes that Supports the Establishment of Entrepreneurship Training Centers.**

The Nigerian government has launched several programmes/schemes to promote entrepreneurship development and on how the current policy on entrepreneurship education can be enhanced. The government allows the institutionalization of entrepreneurship education through the 2004 National Policy of education (NPE) in the curriculum of institutions hence supporting the development and implementation of entrepreneurship development to enhance entrepreneurship education. Entrepreneurship education was thus made a compulsory course in the curriculum of higher education institutions. This has contributed in encouraging most of the higher education institutions to establish entrepreneurship training centers to equip students with hands-on skills for which Federal College of Education Gidan Madi is One. The National Directorate of Employment (NDE) was established to provide and foster entrepreneurship skills among students and school leavers. Some of the programmes and schemes includes; Small Scale Enterprises (SSE, which include Start Your Own Business (SYOB). Entrepreneurship Development Programme (EDP), Basic Business Empowerment (BBE), the Presidential Entrepreneurship Submit and the National Science Technology and the Innovation Roadmap (NSTRI), the Student Industrial Working experience Scheme (SIWES), Vocational and Technical Training and ICT training. The schemes were established to support Government skill acquisition programme for students, aiming to equip individuals with self-employment (<http://nde.gov.ng>).

## **2.4 Role of Entrepreneurship Centers**

Entrepreneurship centers serve as incubators for student-led businesses by providing practical training, mentorship, and access to resources (Akinyemi & Ajibola, 2022). They facilitate the development of entrepreneurial skills through real-life business simulations and production activities, thereby enhancing students' readiness for self-employment (Ekundayo, 2021).

These centers also:

- Provide mentorship and guidance
- Support business incubation and innovation
- Link students to markets and funding opportunities
- Bridge the gap between academia and industry

## **2.5 Challenges of Entrepreneurship Training**

Despite their importance, entrepreneurship programs face several challenges that limit their effectiveness, including:

- Inadequate funding and institutional support
- Poor infrastructure such as electricity and internet connectivity
- Limited mentorship and follow-up support
- Restricted access to markets and financial resources

These challenges significantly hinder students' ability to translate acquired skills into sustainable business ventures (Leach & Melicher, 2020; Burns, 2022).

## **3.0 METHODOLOGY**

The study adopts a mixed-methods research design employing the quantitative descriptive survey where questionnaire will be used as instrument to collect data, and the qualitative technique which allows the use of structured interview to measure and investigate the contributions of the Federal College of Education Gidan Madi Entrepreneurship center for a comprehensive and better understanding. The study will be carried out at the entrepreneurship training center of the Federal College of Education, Gidan Madi targeting students enrolled in the center. A total of 200 students will be used for the research using a simple random sampling. The 200 students will constitute the population study. The instrument to be used for the data collection is the questionnaire titled: Building the skills gap in higher (teacher) through hands-on skills training: investigating the contribution of the Federal College of Education Gidan Madi Entrepreneurship Center in fostering Business star-ups among Students". The interview will be conducted on the educators. Facilitators, mentors and stakeholders.

#### 4.0 RESULTS

**Table 1: Showing the distribution of questionnaire retrieved and not retrieved**

| Options       | Frequency | Percent | Cumulative Percent |
|---------------|-----------|---------|--------------------|
| Retrieved     | 193       | 96.5%   | 96.5               |
| Not Retrieved | 7         | 3.5%    | 100.0              |
| Total         | 200       | 100.0   |                    |

**Source: Field survey, 2026**

Table 1 above shows that two hundred questionnaires were administered to respondents. One hundred and ninety three (193) were retrieved out of the two hundred representing 96.5% while seven (7) respondents representing 3.5% of the questionnaires were not retrieved. However, the number of questionnaires retrieved suffices for a viable analysis while the ones not retrieved were too insignificant to affect the analysis

#### 4.2 Demographic Characteristics of Respondents

**Two demographic data of respondents were raised as presented in tables 2 and 3**

**Table 2: Showing distribution of respondents with respect to age**

|                   | Frequency | Percent | Cumulative Percent |
|-------------------|-----------|---------|--------------------|
| 18-23years        | 82        | 42.5    | 42.5               |
| 24-29years        | 70        | 36.3    | 78.8               |
| 30-35years        | 31        | 16.1    | 94.8               |
| 36years and above | 10        | 5.2     | 100.0              |
| Total             | 193       | 100.0   |                    |

**Source: Field survey, 2026**

**Table 2** above shows that 82 respondents representing 42.5% are 18-23 years, 70 respondents representing 36.3% are 24-29 years, and 31 respondents representing 16% are 30-35 years while 36 years and above respondents representing 10 are 5.2%.

**Table 3: Showing the distribution of respondents with regards to sex**

| Gender | Frequency | Percent | Cumulative Percent |
|--------|-----------|---------|--------------------|
| Male   | 134       | 69.4    | 69.4               |
| Female | 59        | 30.6    | 100.0              |
| Total  | 193       | 100.0   |                    |

**Source: Field survey, 2026**

**Table 3** above shows that 134 respondents representing 69.4% are males while 59 respondents representing 30.6% are females.

### 4.3 Answer to the Research Questions

Four research questions raised in this study are answered and presented in tables 4 – 7. The key for the mean scored interpretation was as follows

**Key:**

|                     |                          |
|---------------------|--------------------------|
| 4.0 (80% and above) | = Very High Extent (VHE) |
| 3.0 (60% to 69%)    | = High Extent (HE)       |
| 2.0 (40% to 59%)    | = Low Extent (LE)        |
| 1.0 (00% to 39%)    | = Very low Extent (VLE)  |

#### Research Question One

RQ 1: What is the significance of hands-on skills training in bridging the entrepreneurship skill gaps in teacher education?

This research question was answered and presented in table 4

**Table 4:** significance of hands-on skills training in bridging the entrepreneurship skill gaps in teacher education

| s/n                         | Items                                                                                                                                                   | Sum        | F          | ( $\bar{X}$ ) | Std. Dev.    | Rating %      | Extent    |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|---------------|--------------|---------------|-----------|
| x1                          | Hands-on skills training complements theoretical courses better than theory alone                                                                       | 682        | 170        | 3.53          | .586         | 88.08%        | VHE       |
| x2                          | Practical training reduces my lack of confidence in starting a business                                                                                 | 715        | 178        | 3.70          | .629         | 92.22%        | VHE       |
| x3                          | The entrepreneurship Center's practical session address real business skills that the regular curriculum does not.                                      | 665        | 116        | 3.44          | .593         | 60.10%        | HE        |
| x4                          | The practical skills I learned are directly relevant to the local market opportunities                                                                  | 609        | 152        | 3.15          | .827         | 78.75%        | HE        |
| x5                          | The training has increased my personal interest in entrepreneurship and I feel motivated to invest personal time and resources into a business project. | 682        | 170        | 3.53          | .510         | 88.08%        | VHE       |
| x6                          | Hands-on training is a waste of time compared with lectures                                                                                             | 302        | 75         | 1.56          | .592         | 38.86%        | VLE       |
| <b>Overall Mean (N=193)</b> |                                                                                                                                                         | <b>609</b> | <b>152</b> | <b>3.156</b>  | <b>.5560</b> | <b>78.75%</b> | <b>HE</b> |

Source: Field survey, 2026

Table 4 shows the significant of hands-on skills training in bridging the entrepreneurship skill gaps in teacher education in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria. The result revealed high significance of hands-on skills training in bridging the entrepreneurship skill gaps (rated 78.77% with a overall mean 3.156). For instance item one: Hands-on skills training complement theoretical courses better than theory alone was rated 88.08% with a mean scored 3.53. Item two: Practical training reduces my lack of confidence in starting a business was rated 92.22% with a mean scored 3.70. Item three: The entrepreneurship Center's practical session address real business skills that the regular curriculum does not was rated 60.10% with a mean scored 3.44. Item four: The practical skills I learned are directly relevant to the local market opportunities was rated 78.75% with a mean scored 3.15. Item five: The training has increased my personal interest in entrepreneurship and I feel motivated to invest personal time and resources into a business project was rated 88.08% with a mean scored 3.53. Item six: Hands-on training is a waste of time compared with lectures was rated 38.86% with a mean of 1.56. Therefore, the significant of hands-on skills training are: it complements theoretical courses better than theory alone, it reduces lack of confidence in starting a business, it addresses real business skills, it increased students motivation and interest in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

## Research Question Two

RQ 2 What are the impact of hands-on skills training on students 'entrepreneurial enthusiasm, passion and intention on one hand and business start-ups on the other hand?

This research question was answered and presented in table 5

**Table 5: impact of hands-on skills training on students 'entrepreneurial enthusiasm, passion and intention**

| s/n                         | Items                                                                                  | Sum        | F          | ( $\bar{X}$ ) | Std. Dev.    | Rating %      | Decision   |
|-----------------------------|----------------------------------------------------------------------------------------|------------|------------|---------------|--------------|---------------|------------|
| x1                          | After attending hands-on training, I feel more excited about starting my own business. | 648        | 162        | 3.3575        | .771         | 83.93%        | VHE        |
| x2                          | The training has increased my personal interest in entrepreneurship.                   | 633        | 158        | 3.2798        | .724         | 81.86%        | VHE        |
| x3                          | The center's programme has improved my understanding of how to run a small business.   | 683        | 170        | 3.5389        | .577         | 88.08%        | VHE        |
| X4                          | The Entrepreneurship Center approved the ability to identify viable business ideas     | 684        | 171        | 3.5440        | .585         | 88.60%        | VHE        |
| <b>Overall mean (N=193)</b> |                                                                                        | <b>662</b> | <b>165</b> | <b>3.4301</b> | <b>.5633</b> | <b>85.96%</b> | <b>VHE</b> |

Source: Field survey, 2026

Table 5 shows the impact of hands-on skills training on students 'entrepreneurial enthusiasm, passion and intention on one hand and business start-ups in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria. The result revealed very high impact of hands-on skills training in bridging the entrepreneurship skill gaps (rated **85.96%** with a overall mean **3.4301**). For instance X1: After attending hands-on training, I feel more excited about starting my own business was rated 83.93% with a mean scored 3.2798. X2: The training has increased my personal interest in entrepreneurship was rated 81.86% with a mean scored 3.2798. X3: The center's programme has improved my understanding of how to run a small business was rated 88.08% with a mean scored 3.5389. X4: The Entrepreneurship Center approved the ability to identify viable business ideas was rated 88.60% with a mean scored 3.5440. Therefore, the impact of hands-on skills training are: students feel more excited about starting business, increase personal interest in entrepreneurship, it improve running of small business and identification of viable business ideas in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

### Research Question Three

RQ 3: What is the huddles/threats confronting students in transforming the acquired entrepreneurial skills and knowledge into real, practical and sustainable enterprises?

This research question was answered and presented in table 6

**Table 6: Hurdles/threats confronting students in transforming skills into sustainable enterprises**

| s/n | Items                                                                                                            | Sum | F   | ( $\bar{X}$ ) | Std. Dev. | Rating % | Decision |
|-----|------------------------------------------------------------------------------------------------------------------|-----|-----|---------------|-----------|----------|----------|
| x1  | Lack of start-up capital is a major barrier to starting a business.                                              | 608 | 152 | 3.15          | .873      | 78.75%   | VHE      |
| x2  | Inadequate access to markets prevents me from turning skills into a sustainable enterprise.                      | 610 | 153 | 3.16          | .912      | 79.27%   | HE       |
| x3  | Limited mentorship and follow-up support from the Entrepreneurship Center makes sustaining a business difficult. | 362 | 90  | 1.87          | .898      | 46.63%   | LE       |
| x4  | Poor record-keeping and financial management skills hinder progress after training.                              | 532 | 133 | 2.75          | 1.03      | 68.91%   | HE       |
| x5  | Regulatory and licensing requirements are a significant hurdle for my planned business.                          | 358 | 89  | 1.85          | .984      | 46.11%   | LE       |
| X6  | .Social/family expectations discourage me from pursuing entrepreneurship                                         | 473 | 118 | 2.45          | 1.13      |          |          |

|                                                                                                      |     |     |      |      |            |
|------------------------------------------------------------------------------------------------------|-----|-----|------|------|------------|
|                                                                                                      |     |     |      |      | 61.13% HE  |
| X7 I believe there are no significant barriers preventing me from starting a business after training | 630 | 157 | 3.26 | .922 | 81.34% VHE |
| Overall mean (N=193)                                                                                 | 510 | 126 | 2.64 | .494 | 66.23% HE  |

**Source: Field survey, 2026**

Table 6 shows the huddles/threats confronting students in transforming the acquired entrepreneurial skills and knowledge into real, practical and sustainable enterprises in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria. The result revealed high huddles/threats confronting students in transforming the acquired entrepreneurial skills and knowledge into real, practical and sustainable enterprises (rated 66.23% with an overall mean 2.64). For instance X1: Lack of start-up capital is a major barrier to starting a business was rated 78.75% with a mean scored 3.15. X2: Inadequate access to markets prevents me from turning skills into a sustainable enterprise was rated 79.27% with a mean scored 3.16. X3: Limited mentorship and follow-up support from the Entrepreneurship Center makes sustaining a business difficult was rated 46.63% with a mean scored 1.87. X4: Poor record-keeping and financial management skills hinder progress after training was rated 68.91% with a mean scored 2.75. X5: Regulatory and licensing requirements are a significant hurdle for my planned business was rated 46.11% with a mean scored 1.85. X6: Social/family expectations discourage me from pursuing entrepreneurship was rated 61.13% with a mean of 2.45. X7: I believe there are no significant barriers preventing me from starting a business after training was rated 81.34% with a mean of 3.26. Therefore, the huddles/threats of hands-on skills training are: Lack of start-up capital, inadequate access to markets, Poor record-keeping and financial management skills and Social/family expectations in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

**Research Question Four**

RQ 4: the effectiveness of the entrepreneurship center's training programmes in fostering self-reliance and self-employment?

This research question was answered and presented in table 7

**Table 7:** Effectiveness of the Entrepreneurship Center's program in fostering self-reliance and employment

| s/n | Items                                                                                                | Sum | F   | ( $\bar{X}$ ) | Std. Dev. | Rating % | Decision |
|-----|------------------------------------------------------------------------------------------------------|-----|-----|---------------|-----------|----------|----------|
| x1  | The Center's training has improved my employability skills (e.g., planning, costing, and marketing). | 599 | 149 | 3.10          | .994      | 77.20%   | HE       |
| x2  | The training prepared me to become self-employed rather than seeking formal employment.              | 651 | 163 | 3.37          | .910      | 84.45%   | VHE      |

|                                                                                                                  |     |     |      |      |            |
|------------------------------------------------------------------------------------------------------------------|-----|-----|------|------|------------|
| x3 The training content was up-to-date, adequate for learning practical skills and matched current market needs. | 610 | 153 | 3.16 | 1.00 | 79.27% HE  |
| x4 Staff/trainers at the Center were competent and approachable.                                                 | 645 | 161 | 3.34 | .741 | 83.41% VHE |
| x5 The Center provides (or links students to) ongoing support for graduates who start businesses.                | 335 | 83  | 1.73 | .945 | 43.00% LE  |
| x6 I am confident I can sustain a small enterprise using the skills acquired from the Center.                    | 670 | 167 | 3.47 | .510 | 86.52% VHE |
| Overall mean (N=193)                                                                                             | 585 | 144 | 3.03 | .652 | 74.24% HE  |

**Source: Field survey, 2026**

Table 7 shows the effectiveness of the entrepreneurship center's training programmes in fostering self-reliance and self-employment in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria. The result revealed high effectiveness of the entrepreneurship center's training programmes in fostering self-reliance and self-employment (rated 74.24% with a overall mean 3.03). For instance X1: The Center's training has improved my employability skills (e.g., planning, costing, and marketing) was rated 77.20% with a mean scored 3.10. X2: The training prepared me to become self-employed rather than seeking formal employment was rated 84.45% with a mean scored 3.37. X3: The training content was up-to-date, adequate for learning practical skills and matched current market needs was rated 79.27% with a mean scored 3.16. X4: Staff/trainers at the Center were competent and approachable was rated 83.41% with a mean scored 3.34. X5: The Center provides (or links students to) ongoing support for graduates who start businesses was rated 43.00% with a mean scored 1.73. X6: I am confident I can sustain a small enterprise using the skills acquired from the Center was rated 86.52% with a mean of 3.47. Therefore, the effectiveness of the entrepreneurship center's training programmes are: Center's training improve planning, costing, and marketing, encourage self-employed, adequate current training content for learning practical skills and it has competent Staff/trainers in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

#### 4.3 Test of Hypotheses

**H<sub>01</sub>:** There are no significant hands-on skills training in bridging the entrepreneurship skill gaps in teacher education

**Table 8:** Chi-square for the significant hands-on skills training in bridging the entrepreneurship skill gaps in teacher education.

| Variables                            | N   | $\bar{X}$ | SD.    | DF | Chi-sq-value         | P-value | Decision                    |
|--------------------------------------|-----|-----------|--------|----|----------------------|---------|-----------------------------|
| significant hands-on skills training | 193 | 3.1563    | .55607 | 16 | 480.570 <sup>a</sup> | .000    | Ho <sub>1</sub><br>Rejected |

**Alpha level = 0.05**

Table 8 reveals the number of participants (n) = 193, and a Chi-square value = 480.570<sup>a</sup> and P-value of .000. Testing the hypothesis at alpha level = 0.05. The P-value is less than alpha value, .059 < 0.05. Hence the null hypothesis one is rejected. This indicates that there is significant hands-on skills training have in bridging the entrepreneurship skill gaps in teacher education. This means that teacher education entrepreneurship skill has led to hands-on skills training. By implication, it means teacher education entrepreneurship skills has significant hands-on skills training in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

Ho<sub>2</sub>: There is no any significant impact of hands-on skills training on students 'entrepreneurial enthusiasm, passion and intention on one hand and business start-ups on the other hand

**Table 9:** Chi-square for the Impact of hands-on skills training on students 'entrepreneurial

| Variables                                                       | N   | $\bar{X}$ | SD.    | DF | Chi-sq-value         | P-value | Decision                    |
|-----------------------------------------------------------------|-----|-----------|--------|----|----------------------|---------|-----------------------------|
| impact of hands-on skills training on students 'entrepreneurial | 193 | 3.4301    | .56334 | 10 | 408.124 <sup>b</sup> | .000    | Ho <sub>2</sub><br>Rejected |

**Alpha level = 0.05**

Table 9 reveals the number of participants (n) = 193, and a Chi-square value = 408.124<sup>b</sup> and P-value of .000. Testing the hypothesis at alpha level = 0.05. The P-value is less than alpha value, .059 < 0.05. Hence the null hypothesis two is rejected. This indicates that there is significant impact of hands-on skills training on students 'entrepreneurial enthusiasm, passion and intention on one hand and business start-ups on the other hand. This means that teacher education entrepreneurship skills have high impact on hands-on skills training. By implication, it means teacher education entrepreneurship skills has impact on hands-on skills training on students 'entrepreneurial in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

Ho<sub>3</sub>: There are no any significant huddles/threats confronting students in transforming the acquired entrepreneurial skills and knowledge into real, practical and sustainable enterprises.

**Table 10:** Chi-square for the huddles/threats confronting students in transforming the acquired entrepreneurial skills and knowledge

| Variables                            | N   | $\bar{X}$ | SD.    | DF | Chi-sq-value         | P-value | Decision                    |
|--------------------------------------|-----|-----------|--------|----|----------------------|---------|-----------------------------|
| huddles/threats confronting students | 193 | 2.6447    | .49490 | 10 | 145.720 <sup>b</sup> | .059    | Ho <sub>3</sub><br>Rejected |

#### Alpha level = 0.05

Table 10 reveals the number of participants (n) = 193, and a Chi-square value = 145.720<sup>b</sup> and P-value of .000. Testing the hypothesis at alpha level = 0.05. The P-value is less than alpha value, .059 < 0.05. Hence the null hypothesis one is rejected. This indicates that there is significant huddles/threats confronting students in transforming the acquired entrepreneurial skills and knowledge into real, practical and sustainable enterprises. This means that teacher education entrepreneurship skill has huddles/threats confronting students in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

**Ho<sub>4</sub>:** There is no significant effectiveness of the entrepreneurship center's training programmes in fostering self-reliance and self-employment

**Table 11:** Chi-square for the effectiveness of the entrepreneurship center's training programmes

| Variables                                                          | N   | $\bar{X}$ | SD.    | DF | Chi-sq-value         | P-value | Decision                    |
|--------------------------------------------------------------------|-----|-----------|--------|----|----------------------|---------|-----------------------------|
| effectiveness of the entrepreneurship center's training programmes | 193 | 3.0311    | .65299 | 16 | 115.026 <sup>a</sup> | .000    | Ho <sub>4</sub><br>Rejected |

#### Alpha level = 0.05

Table 11 reveals the number of participants (n) = 193, and a Chi-square value = 115.026<sup>a</sup> and P-value of .000. Testing the hypothesis at alpha level = 0.05. The P-value is less than alpha value, .059 < 0.05. Hence the null hypothesis one is rejected. This indicates that there is significant effectiveness of the entrepreneurship center's training programmes in fostering self-reliance and self-employment. This means that teacher education entrepreneurship skill is effective in fostering self-reliance and self-employment in the federal college of education Gidan Madi entrepreneurship center in fostering business start-ups among students in Sokoto State, Nigeria.

### 4.5 Discussion of Findings

The study examined how hands-on skills training contributes to bridging the skills gap in higher (teacher) education, with specific focus on the Federal College of Education Gidan Madi Entrepreneurship Center.

Findings from the first hypothesis revealed that hands-on skills training significantly bridges entrepreneurship skill gaps among students. The training complements theoretical knowledge, builds confidence, enhances motivation, and equips students with practical business skills. This aligns with the view that experiential learning improves readiness for real-world business tasks (Monllor, 2024). Similarly, studies by Nabi et al. (2017) and Fayolle and Gailly (2008)

emphasize that hands-on approaches are more effective than theory alone in developing entrepreneurial skills, self-efficacy, and intentions. Supporting this, Vecchiarini et al. (2023) noted that practical learning modules enhance competence, while Bardales-Cardenas et al. (2024) linked such skills to local market relevance. Furthermore, entrepreneurship centers provide critical real-world competencies such as communication, commercialization, and innovation beyond traditional curricula (McGloin & Mathieu, 2022).

The second hypothesis showed that hands-on training has a significant impact on students' entrepreneurial enthusiasm, intention, and business start-up potential. Students reported increased interest in entrepreneurship, improved ability to identify business opportunities, and better understanding of business operations. This is consistent with findings by Anjurin (2024) and Bardales-Cardenas (2024), who found that practical training enhances entrepreneurial competence and readiness. Likewise, Ho et al. (2018) and Pham et al. (2023) established that experiential learning increases entrepreneurial self-efficacy and intention. These findings reinforce the idea that practical entrepreneurship education strengthens both mindset and capability for venture creation.

However, the third hypothesis revealed that several barriers hinder students from transforming acquired skills into sustainable enterprises. Major challenges identified include lack of start-up capital, limited market access, poor financial management skills, and social expectations. These findings are consistent with Leach and Melicher (2020) and Burns (2022), who identified access to finance as a major constraint to start-up success. Reports such as the Global Entrepreneurship Monitor (GEM) also highlight finance and market access as persistent barriers. Additionally, mentorship gaps and weak follow-up support limit business sustainability (St-Jean & Audet, 2009; Ahmed Yani et al., 2024). Poor financial management further constrains growth, as noted by Leach and Melicher (2020).

The fourth hypothesis confirmed that the entrepreneurship center's training programs are effective in promoting self-reliance and self-employment. The training improved students' employability skills, including planning, costing, and marketing, and increased their confidence in sustaining businesses. This supports findings from Premand et al. (2016) and Ho et al. (2018), who reported that entrepreneurship training enhances self-employment readiness and practical competence. Similarly, Fan (2024) and Ngcobo (2025) emphasized that market-oriented and skill-based training improves employability outcomes.

Interestingly, regulatory constraints were not perceived as major barriers, which aligns with findings by Sitaridis and Kitsios (2017) and Malebana (2015). Additionally, family influence was found to be largely supportive rather than restrictive, consistent with studies by De Laender (2021), Hayward (2023), and Nguyen (2024), which highlight the positive role of family in encouraging entrepreneurial activities.

Overall, the findings confirm that hands-on skills training is a critical driver of entrepreneurial development, though its effectiveness is influenced by structural challenges such as funding, mentorship, and market access.

## 5. Conclusion

Based On the findings of this study it was revealed that there is significant hands-on skills training, there is significant impact of hands-on skills training on students 'entrepreneurial and there is significant effectiveness of the entrepreneurship center's training programmes in fostering self-reliance and self-employment in fostering business start-ups among students in Sokoto State, Nigeria. The impact of hands-on skills training are: students feel more excited about starting business, increase personal interest in entrepreneurship, it improve running of small business and identification of viable business ideas. The huddles/threats of hands-on skills training are: Lack of start-up capital, inadequate access to markets, Poor record-keeping and financial management skills and Social/family expectations. It was concluded that effectiveness of Center's training improve planning, costing, and marketing, encourage self-employed, adequate current training content for learning practical skills and it has competent Staff/trainers.

### 5.1 Recommendations

Based on the findings and conclusions from this study the researcher recommends the following:

1. Government at all level should positively intensify hands-on skills training to improve the lack of confidence in starting a business and addresses real business skills in the society.
2. Federal Government should consider and improve impact of hands-on skills training on students 'entrepreneurial to foster business start-ups among students in Sokoto State, Nigeria.
3. Seminars and excursions should be organized by Government, Non-Governmental Organizations and Quality Assurance Department, so that huddles/threats confronting students in transforming the acquired entrepreneurial skills can be addressed.
4. Government should ensure that staffs are properly place in respect to their area of specialization in other to ensure effective entrepreneurship center's training programmes in the state.

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