

# Challenges of Entrepreneurship Education and Curriculum towards Job creation among Students of Jigawa State Polytechnic Dutse

Ibrahim Mohammed Umar , Tijjani Muhammad Nasir

*Jigawa State Polytechnic Dutse*

## 1. Introduction

Entrepreneurship is a discipline of action in a real-world ecology of complex changes (Dobson et al. 2017). It has been more than 70 years since first entrepreneurship course was developed at Harvard's Business School in 1947. After that date, the number of entrepreneurship courses has increase significantly (Flore et al. 2019). Recent studies highlight increasing recognition of the importance of business entrepreneurship for economic growth and employment (Gimmon, 2014; Djubaedi et al. 2023; Hermawan et al. 2023; Saputra et al. 2024; Majeed et al. 2025; Girma Aragaw et al. 2025).

The great development in the western world was attributed to the entrepreneurial orientation. In industrialized nations, increase entrepreneurial activity serves to reposition dying industries; provide new jobs and enhance economic flexibility and growth (Abimbola et al. 2011; Cristy et al. 2020). Policies to support series of employment services through extensive network are provided. For example, in the United State, about 2400 job centres are in existence, in France, beside unemployment benefit, yearly budget of about 600 job centres are functional. Similarly, Impressive growth in the emerging economies notably Brazil, Russia, India and China, has been driven by innovative entrepreneurial revolution (Egwu, 2014). Unfortunately, this civic right is unavailable in some developing African countries (Kuchertz, 2013; Gimmon, 2014).

Several studies connected increased entrepreneurial activities to national development which is not only connected to train and behavior of people but also the environment (Abimbola, 2011; Shah et al. (2020), which may be determine by population of a country. The high level of population determines the high level of job competition (Pramudita, 2021). In developing Asian countries most studies on entrepreneurship education is from Indonesia because of its notable large population and higher level of unemployed people (Cristy et al. 2020). Having the same characteristic with Nigeria this study seeks to understand entrepreneurship education in polytechnic setting.

The population of Nigeria as at 2021 was 284 million, with an average workforce of 125.76% of which 33.65% were unemployed. Different government designed different policies and programmed like Operation Feed the Nation (OFN), Green Revolution (GR), Directory of Road and Rural Infrastructure (DIRRI), National Directory of Employment (NDE) and in fourth republic National Economic Empowerment and Development (NEED) for the past three decades aimed at developing entrepreneurship through the development of small and medium scale enterprise. Besides that, Government introduced entrepreneurship education in the curriculum in tertiary institutions in Nigeria to cut unemployment still the level of poverty and unemployment rate continue to be a treat to the youth. Documented data reveals that unemployment continue to rise from 13.1% in year 2000 to 23.9% in 2011 with youth unemployment to over 50% (I.M.F, 2013). The recent data from National Bureau of Statistics reported unemployment rate of 5.3% in the fourth quarter of 2022 and 4.1% in the first quarter of 2023 in Nigeria (Aruofor et al. 2024).

Extant study reveals that entrepreneurship does not directly affect economic growth in high income countries but does in poor countries (Doran et al. 2018). It is known than labour, technology and material resources in the

country are important premises for entrepreneurship education and job creation. However, the factors remain under utilize in the absence of active enthusiastic entrepreneur, who have the ability to organize the various factors of production (Akiri, et al. 2016).

## 2. Literature Review

### 2.1 Entrepreneurship Education

Education is significantly correlated with the intention to create a new venture (Diawati et al. 2024). Entrepreneurship education has been defined as “structured, formal conveyance of entrepreneurship knowledge meaning the concepts, skills and mentality individual business owners use during the course of starting and developing their growth-oriented business” (Owusu-Mintah, 2014). The aims of entrepreneurship education may seem promising, but its implementation is challenging (Petraite, 2016). Entrepreneurship education is an effort to internalized the spirit and mindset of entrepreneurship through educational institution and other entities such as training institution and others (Saputra et al. 2024), the essence is to enhance student entrepreneurial activities, skills and intention with aim to stimulate growth (Flore et al. 2019). A study was conducted using descriptive qualitative survey techniques the result reveals that, role-playing entrepreneurship education model can be applied in the education system at a pre-school level to acquire entrepreneurial knowledge and skill from early stage (Djubaedi et al. 2023). In a contrary view Paltasingh, (2012); Lackeus, (2020) observed that the common methods used in teaching entrepreneurship education in developing African countries like Nigeria are the lecture and discussion method. Other methods such as tutorial, field trips to successful entrepreneurship, role play/dramatization use of model (Successful entrepreneur) project method, problem solving method, seminar and workshop and career talk are less common especially in developing African countries

In another view, Adeyemi et al. (2024) states that government and educational institutions in Africa must prioritize entrepreneurship education and integrate practical modules in to mainstream curriculum. Likewise, collaboration between educational institutions and industry players can ensure that entrepreneur education remain relevant, incorporating emerging trends, technological advancement, and global market dynamics. At the same vain, Gimmon, (2014) assume that entrepreneurship education in universities may have difficulties in providing feedback programmed, therefore, entrepreneurship programs could certainly emphasize the need to observe the particularities of the participants in the training programs like women, since women in a disadvantage population creating personalized approach to their occupation really is necessary (Filho et al. 2020).

***H1: Entrepreneurship education positively and significantly influence job creation***

### 2.2 Entrepreneurship Curriculum

In every learning process, there is always a curriculum applied to create an effective learning situation in line with the intended objectives, and the same goes to entrepreneurship education (Sufian and Karim, 2016; Saputra et al. 2024). There are several important goals for entrepreneurship education in the curriculum in institution. In order to integrate education with practical entrepreneurship, a relevant curriculum is required (Djubaedi et al., 2023). However, most entrepreneurship courses are largely descriptive in nature and generally take the perspective of the detached academic as oppose to the practicing entrepreneurship (Paltasingh, 2012; Gimmon, 2014; Sufian and Karim, 2016). Similarly, result of a study conducted by Saputra et al. (2024) reveals that there is still dissatisfaction regarding the implementation of entrepreneurship curriculum in high education. Curricula required to be aligned with assessment practices in improving student learning (Kilag et al. 2024). Despite the growing need of entrepreneurship studies, there is dearth of literature in the area of entrepreneurship education and curriculum (Paltasingh, 2012). Therefore, this study postulated that:

***H2: Entrepreneurship curriculum has a positive and significant effect on job creation***

### 2.3 Innovation

Innovation is defined as to how an organization can achieve a sustainable growth. Both entrepreneurship and innovation are complementing each other to help an organization to thrive and can make the most disadvantage people realize their potential which may subsequently leads to job creation (Galvao et al. 2018; Gholami and Al-Tahoo, 2021; Saputra, et al. 2024). Economic welfare is what matters the most for a nation if it compares with the

effective application of innovations (Aldianto et al. 2018). On the other hand, Pacheco, and Ferreira, (2024) assume that research collaboration between industries and tertiary institutions, incorporating teachers, department and students, can influence the success of entrepreneurship training. Innovation process and entrepreneurship culture are becoming critical drivers necessary in organizations globally, however, there is several weakness and limitations in the expansion of the two constructs in colleges and universities characterise by too much theoretical teaching than practical (Kusio and Fiore, 2020). Extant study reveals a very low study on innovation and entrepreneurship (Vettik-leemet and Mets, 2024). Therefore, this study postulated that:

***H3: Innovation positively and significantly effect job creation***

## **2.4 Job Creation**

Job creation, also known as employment creation or employment generation is defined as the sum of all new employment generation in the economy (Liu et al. 2019). Entrepreneurship plays a crucial role in economic development and innovation, as the poster job creation, drives economic growth, and promote technical advancement (Decker et al. 2014; Komninos et al. 2023). Colleges and universities are creating curricula and establishing centres devoted to entrepreneurship in order to help support new venture creation (Dobson et al. 2017). However, important supportive policies, access to financing, and favourable regulation environment facilitate entrepreneurship and its positive impact on employment (Komninos et al. 2023). Entrepreneurship courses have a positive influence on people to create business at some point in their career. Polytechnic students are required not only engage in seeking employment after graduation but also able to create jobs opportunities with the skill acquired (Saputra et al. 2024). In most cases participants may not devoted themselves to new venture creation but pursue an employment-based career (Chang et al. 2024).

## **3. Objectives of Study**

1. To assess the influence of entrepreneurship curriculum in promoting job creation of Jigawa State Polytechnic graduated students.
2. To assess the mediating role of innovation in a relationship between entrepreneurship education and job creation of Jigawa State Polytechnic graduated students.

## **4. Theoretical Background**

### **4.1 Entrepreneurial Skill Theory**

One of the theories used to explain entrepreneurship education is the entrepreneurial skill theory introduced by David McClelland in 1965. The theory emphasizes the importance of entrepreneurship skills and characteristics in shaping entrepreneurship behaviour. The theory assert that entrepreneurship education facilitates the growth of skills especially on individuals whose shows interest to pursue entrepreneurial paths (Heryadi et al. 2024). Theory in entrepreneurship and innovation over the past decade focuses on theory-building, and conceptual thinking with insufficient attention on entrepreneurship and innovation (Chell, 2013).

### **4.2 Hypotheses Development**

Below is the framework guiding the study with four constructs including two Independent Variables (Entrepreneurship Education and Entrepreneurship curriculum), one Mediator (Innovation), and Dependent Variable (Job Creation).

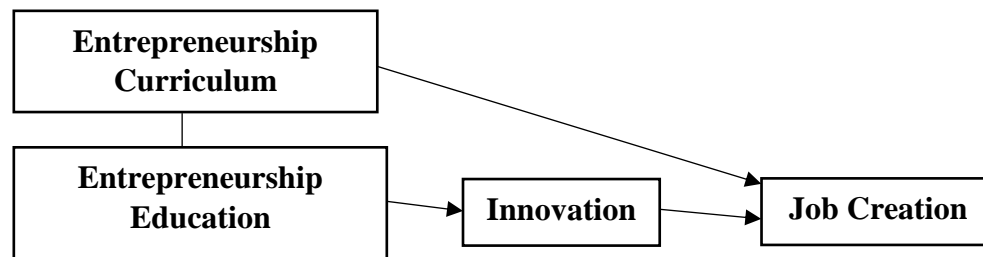


Figure: 1 Conceptual Framework of the study

## 5. Material and methods

### 5.1 Population

The population of study comprising of; 2,060 polytechnic students graduated from 2022-2023, 30 lecturers and 10 management staffs. Details of the respondent total number for lectures was obtained from business administration and management head of department, for the management was obtained from the polytechnics registry while for the students was obtained from Information Management System (IMS) of the polytechnic.

### 5.2 Sampling and Sample size

The study used stratified random sampling techniques to obtained information from 365 respondent. Krejcie and Morgan, (1970) sample size table was used to obtained information from each stratum. For clarity See table 1: below for the details.

Table 1: Sample size

Respondent Categories	Total Population	Actual sample size (Krejcie Morgan)
Graduates students	2,060	327
Lectures	30	28
Management	10	10
<b>Total</b>	<b>2,100</b>	<b>365</b>

### 5.3 Instrument

The data was divided into two sections. The first section contained demographic variables, the second contained items that measure the dependent variables, while the last part contained items that measure independent variables. Sections two are based on scale responses, which were measured, using a five (5) point Likert scale from strongly disagree to strongly agree. The five-point scale limited the respondents' level of frustration, enhanced response rate and response quality (Babakus and Mangold, 1992; Buttle, 1996). See appendix A for the scale used for the study.

## 6. Results

### 6.1 Demographic Profile of Respondents

As reflected in table (2) 37.9% of the respondent ages between 26-35 years. This indicates that young people are inspired to become entrepreneurs (Lai et al. 2021). From the gender perspective 80.5% were males, and 19.5% are female. This shows the influence of culture in determining women's enrolment in higher education. In some State in Northern Nigeria women are deprive for higher education. For instance, only 20% of women in the North West and North East Nigeria are literate and have attended formal school (Alabi and Alabi, 2014). To encourage

women participation some states in Northern Nigeria like Jigawa State lunched a free women education. Extant literature reveals that the number of female students enrolling in higher education is increasing, still the gender constitutes a distinct minority in most entrepreneurship programmes (Hagg, 2023). Moreover, 72.9% of the participants are Diploma graduate. This may be attributed to student enrolment of Diploma is higher than HND. Majority percentage 73.7% engaged in entrepreneurship training in less than 1 year.

**Table 2: Demographic Profile of Respondents**

S/N	Variable	Category	Frequency	Percentage (%)
1	Age	1. 18-25	102	27.9
		2. 26-35	143	39.2
		3. 36-45	94	25.8
		4. 46-above	26	7.1
	<b>Total</b>		<b>365</b>	<b>100.0</b>
2	Gender	1. Male	294	80.5
		2. Female	71	19.5
	<b>Total</b>		<b>365</b>	<b>100.0</b>
3	Level of Education	1. ND	266	72.9
		2. HND	64	17.5
		3. Masters	19	5.2
		4. Ph. D	16	4.4
	<b>Total</b>		<b>365</b>	<b>100.0</b>
4	Have you attended entrepreneurship skill training?	1. Yes	339	92.8
		2. No	26	7.12
	<b>Total</b>		<b>365</b>	<b>100.0</b>
5	Are you interested?	1. Yes	334	91.5
		2. No	31	8.4
	<b>Total</b>		<b>365</b>	<b>100.0</b>
6	At what capacity do you engage in entrepreneurship activity?	1. Polytechnic Management	12	3.3
		2. Lecturer	26	7.1
		3. Graduated Student	327	89.6
	<b>Total</b>		<b>365</b>	<b>100.0</b>
7	For how long have you attended the entrepreneurship training program?	1. >5 years	89.6	14.5
		2. >4 years	12	3.3
		3. >3 years	9	2.5
		4. >2 years	22	6.0
		5. <1 year	269	73.7
	<b>Total</b>		<b>365</b>	<b>100.0</b>

Descriptive analysis was used to measure the dispersion of responses with respect to the study's variables in terms of their minimum, maximum, mean and standard deviation. The results from these analyses are depicted in Table 3:

**Table 3: Descriptive Statistics**

Constructs	N	Minimum	Maximum	Mean	Std. Deviation
EDN	365	1.00	5.00	1.2935	.69691
CRL	365	1.00	5.00	1.4737	.65923
INV	365	1.00	5.00	1.1994	.70267
JCN	365	1.00	5.00	2.3500	.60427

The results from Table 3 revealed that the minimum response across all the variables is 1, which means that some of the respondents disagree with statements for the variables. The maximum response is 5, which indicate that some of the respondents strongly agree with the statement. The minimum and maximum responses, the mean

values ranged from 1.2935 to 2.3500. This means that most of the responses disagree with the statements because it is below average, which is in line with standard deviation.

### 6.2 Measurement Model Analysis

Two types of validity were used to assess the measurement model, including: convergent and discriminant validity. The literature describes composite reliability as the best measure of reliability as Cronbach’s alpha may underestimate scale reliability (Gholami et al., 2013; Rouf and Akhtaruddin, 2018).

#### 6.2.1 Convergent Validity

The convergent validity was used to assessed Average Variance Extracted (AVE). All the values are above 0.5, as suggested in the literature. Moreover, Composite Reliability (CR) was higher than the recommended threshold value of 0.70 (Ramayah, 2017). In addition, the items achieved the recommended loading of 0.7 except for some items which were deleted because their loadings were below 0.6 (Fauzi, 2022). As reflected in Table 4 and Fig 2, all the values achieved the requisite threshold.

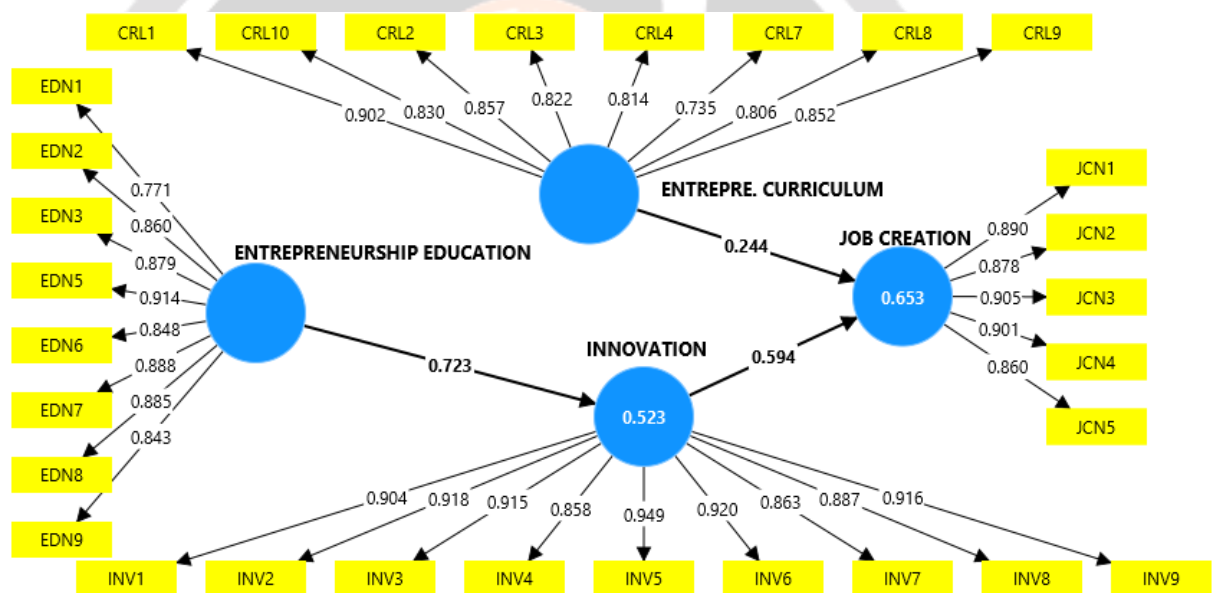


Figure 2 measurement model

Table 4 Convergent validity

CONSTRUCTS	ITEMS	LOADING	C. RELIABILITY	AVE
	CRL1	0.893		
	CRL10	0.819		
	CRL2	0.843		
	CRL3	0.811		
	CRL4	0.808		
	CRL6	0.661		
	CRL7	0.749		
	CRL8	0.825		
	CRL9	0.842	<b>0.937</b>	<b>0.653</b>
	EDN1	0.771		
	EDN2	0.860		

	<b>EDN3</b>	0.879		
	<b>EDN5</b>	0.914		
	<b>EDN6</b>	0.848		
	<b>EDN7</b>	0.888		
	<b>EDN8</b>	0.885		
	<b>EDN9</b>	0.843	<b>0.950</b>	<b>0.743</b>
	<b>INV1</b>	0.904		
	<b>INV2</b>	0.918		
	<b>INV3</b>	0.915		
	<b>INV4</b>	0.858		
	<b>INV5</b>	0.949		
	<b>INV6</b>	0.920		
	<b>INV7</b>	0.863		
	<b>INV8</b>	0.887		
	<b>INV9</b>	0.916	<b>0.973</b>	<b>0.817</b>
	<b>JCN1</b>	0.890		
	<b>JCN2</b>	0.878		
	<b>JCN3</b>	0.905		
	<b>JCN4</b>	0.901		
	<b>JCN5</b>	0.860	<b>0.934</b>	<b>0.787</b>

### 5.2.2 Structural Model

#### Assessing the Significant of Path Coefficient for Hypothesis Testing

The structural model was assessed using bootstrapping in Smart-PLS software through the statistical significance of the path coefficient and t-value to test the hypotheses (Hair et al. 2013). Hypothesis 1 proposed that curriculum will influence the job creation of graduated students of Jigawa State polytechnic. The result from this hypothesis is not significant ( $t= 1.396$ ,  $p= 0.163$ ). Hypothesis 2 also postulated that entrepreneurship education influence innovation of Jigawa State polytechnic Dutse graduated students, which was supported ( $t= 9.065$ ,  $p= 0.000$ ). Hypothesis 3 for the mediating effect of innovation on the relationship between entrepreneurship education and job creation of Jigawa State polytechnic Dutse graduated students, reveals significant relationship with ( $t=2.906$ ;  $p=0.004$ ). The result is presented in Table 5 below.

**Table 5: Path Coefficients for Hypotheses Testing**

Path Coefficient	Beta	SE	T. Statistics	P. values	Decision
CURRICULUM -> JOB CREATION	0.291	0.187	1.396	<b>0.163</b>	<b>Not Significant</b>
ENTREPRENEUR _EDUCATION -> INNOVATION	0.723	0.080	9.065	<b>0.000***</b>	<b>Significant</b>
INNOVATION -> JOB CREATION	0.548	0.199	2.906	<b>0.004***</b>	<b>Significant</b>

\* $p<0.1$  \*\* $p<0.05$ , and \*\*\* $P<0.01$

### 5.2.3 Assessment of Coefficient of Determination (R2)

The R-squared assessed the extent to which independent variables collectively explained the dependent variables. It is assessed using a threshold value coefficient of 0.25, 0.5, and 0.75, indicating a weak, moderate, and strong threshold, respectively (Hair et al. 2013). This study reveals a moderate threshold as presented in Table 6 below.

**Table 6 Coefficient of Determination (R<sup>2</sup>)**

	<b>R-square</b>	<b>R-square adjusted</b>
<b>INNOVATION</b>	0.523	0.521
<b>JOB CREATION</b>	0.656	0.654

#### 5.2.4 Discriminant Validity

The discriminant validity of the measurement model is assessed through the HTMT criterion, which requires that the constructs' value be below 0.90, as recommended by (Henseler et al. 2015). In line with this recommendation all the constructs achieved the recommended cut-off as presented in Table 7.

**Table 7 Discriminant Validity**

<b>DISCRIMINANT VALIDITY</b>	<b>CURRICULUM</b>	<b>ENT. EDUCATION</b>	<b>INNOVATION</b>	<b>JOB CREATION</b>
<b>CURRICULUM</b>	<b>0.808</b>			
<b>ENTREPRE. EDUCATION</b>	0.860	<b>0.862</b>		
<b>INNOVATION</b>	0.838	0.723	<b>0.904</b>	
<b>JOB CREATION</b>	0.746	0.703	0.797	<b>0.887</b>

## 7. Discussion

This study reveals that the relationship between entrepreneurship education and entrepreneurship curriculum is not significant, consistent with study of Felicia (2019), which reveals a low and insignificant relationship between entrepreneurship education and entrepreneurship curriculum. This may be attributed to policy implementation. The curriculum is designed to target higher institution and neglect primary and secondary education. Likewise, the curriculum is theory not practical based to provide skills for the student.

The study reveals a positive and significant relationship between entrepreneurship education and innovation. Consistent with the study of Wei et al. (2019) that shows a positive relationship between perception of entrepreneurship education and perception of innovation. Innovation requires entrepreneurship support to penetrate the market, while entrepreneurship thrives on introducing new and innovative solution.

A similar study reveals a significant relationship between entrepreneurship education and self-employment (Kisubi et al. 2021). While, other study conducted by Saputra et al. (2024) reveals that, there is still dissatisfaction regarding the implementation of entrepreneurship curriculum in high education. A similar study reveals a weak connection between entrepreneurship education in the polytechnic and actual preparation for setting up new business (Gao et al. 2021).

## 8. Implication

The study provided contradicting results on the postulation of entrepreneurship curriculum and job creation. While studies from Europe and most Asia produced a positive and significant relationship between the two constructs the current study resulted insignificant relationship. This can be justified from the environmental orientation and education policy where entrepreneurship education is introduced from basic to tertiary level of education.

## 9. Limitation and Further Research

The study is limited to polytechnic setting, other institutions and basic education may be a wider coverage of contribution of entrepreneurship education on national development. The study used quantitative approach to obtained information from respondents. Using a different approach of quantitative or mixed approach may provide a details explanation of subject under investigation. Beside construct used for this study other variable may be worth of study.



## 10. Acknowledgement

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## Appendix

### Questionnaire Items

#### Part A: Assesment of Entrepreneurship Education

S/N	Code	Items	1	2	3	4	5
1	EDN	The course subject matter was adopted to my prior knowledge					
2	EDN	The course subject where clear to me					
3	EDN	The topic of the course was useful					
4	EDN	The course subject matter was difficult to understand					
5	EDN	I have learned a lot during this course					
6	EDN	I have considered the subject of this course interesting					
7	EDN	The course was well organised					
8	EDN	I think that the training in professional skill fitted within the time frame					

Adapted from: (Schmidt et al. 1995)

#### Part B: Assesment of Entrepreneurship Curriculum

S/N	Code	Items	1	2	3	4	5
1	CRL	The training in professional skill linked up well with the course theme					
2	CRL	The training in professional skills was offered within the time frame of the course					
3	CRL	I think that the training in professional skills is relevant for the curriculum					
4	CRL	The training in professional skill was offered in an instructionally sound fashion					
5	CRL	The system is not having necessary physical infrastructure					
6	CRL	The development of curriculum without the basis of teaching process, distance from reality					
7	CRL	Unpracticality of the innovation made in the curriculum affect the learning objectives					
8	CRL	Accessibility of the material during curriculum application process lead to a successful program					
9	CRL	Our curriculum application has support from the polytechnic administration					
10	CRL	Materials is available during curriculum application process					
11	CRL	The development of curriculum without the basis of teaching processes, distance from reality					

Adapted from Setiawan and Basri, (2023)

#### Part C: Assesment of Entrepreneurship Innovation

S/N	Code	Item	1	2	3	4	5
1	INV	Innovation makes us better prepared for the future					
2	INV	Innovation make us more competitive					
3	INV	Innovation foster our creativity					
4	INV	We utilize innovative procedures and process during manufacturing our product					

5	INV	We regularly address new, unserved market segment					
6	INV	We are often successful in our business by practically implementing new					
7	INV	Whenever I worked, I improved something					
8	INV	Many things I came up with are used in our organization					
9	INV	We keep the technical resources of our organization up-to-date					
10	INV	Innovation is a core value in our organization					

Adapted from (Den Eynde et al. 2015; Claub, 2017)

#### Part D: Assessment of Job creation

S/N	Code	Items	1	2	3	4	5
1	JCN	Inclusion of entrepreneurship education in the curriculum change perception towards job creation					
2	JCN	The skill acquired through entrepreneurship training made me establish a business					
3	JCN	I'm now employer of labour through the entrepreneurship training I venture in to					
4	JCN	I invest through income made from vocational skill					
5	JCN	Exploration of new business opportunities influence skill acquisition and job creation					
7	JCN	Sourcing, analyzing new information and venturing in to a new business influence skill acquisition and job creation					

Osemudiamen, and Oghojapfor, (2021)