
**DEVELOPING ENTREPRENEURSHIP SKILL THROUGH
COGNITIVE APPRENTICESHIP (CA) FOR POVERTY REDUCTION
IN THE NIGER DELTA REGION OF NIGERIA; PROSPECTS AND
CHALLENGES**

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Abstract

Nigeria in response to the effect of the present harsh economic realities has made the teaching of entrepreneurship a compulsory course in the university as a means of job and wealth creation. This is in a bid to combat the ever increasing population in the labour market. Conceptual and problem solving knowledge remains bound to surface features as they appear in textbooks and class presentations. In traditional society, teaching and learning were accomplished through apprenticeship. Cognitive apprenticeship is an instructional strategy developed to bridge the dichotomy of learning in a classroom and the tangible activities that may result from professional practice or other realistic situations. The cognitive apprenticeship model involves modeling, coaching, scaffolding, and mentoring. Equipping youth with useable entrepreneurial skills through this instructional strategy will enable them to be self – reliant and independent as they manage and grow their private businesses. It will help forestall youth restiveness, pipeline vandalism, militancy and other social vices. Some challenges envisaged are the sourcing of successful experts in the business sector who will serve as role models to these learners. It is recommended that the necessary mechanism such as sensitization and the benefits of cognitive apprentice should be created to allow for its use.

Key words:-Cognitive Apprenticeship, Entrepreneurship skills, Poverty Reduction.

Education is a major tool for development of the individual, communities and society at large. Meaningful functional education is crucial for the development of any nation. This has led Nigerian as a country to bring different policies of education to improve lives of citizenry. These however have not yielded the expected results as stated in the national goals of education. The labor market is over populated and over burdened has various tertiary institutions churn out graduates every year. This has given rise to a great cause for concern has to be gainfully employed as self-reliant after graduation is the major objective of training students in one profession or the other. The hand writing on the wall clearly shows that it has become necessary for the overhauling of the educational system so as to impart the right knowledge, skills and attitudes which can stir up the productive potentials of the citizens to achieve self-reliance through self employment and development. These will in turn curb these deplorable situations that has made some youths to resort to violence, robbery, ritualist, militancy, kidnappers and eventually die prematurely, (Ayadike, Emeh, Ukena 2012).

The federal government of Nigerian in an attempt to solve these ugly effects of unemployment, introduced entrepreneurship education in tertiary institutions (Ajileye, 2017). Students in university are to take a compulsory course in entrepreneurship no matter their area of specialization. To fit into present day demands in the world generally, education is more than just making a student literate but also to add rational thinking, creativity, and self sufficiency for self-reliance. It is believed that education have the power to unlock the creative and innovative potential of the individual. The implication of these is that educational technology experts are not supposed to teach acquisition of information and knowledge only but also how to apply and use this information for self-reliance (Ajileye, 2017) Although schools have been relatively successful in organizing and conveying large bodies of conceptual and factual knowledge, it is clear that standard pedagogical practices render key aspects of expertise invisible to students (Collins Brown and Holum, 1999). According to them, too little attention is paid to the reasoning and strategies that experts employ when they acquire knowledge or put it to work to solve complex or real-life tasks even where such processes are addressed, the emphasis is in formulaic methods of solving textbook problems or on the development of low-level sub skills in relative isolation. As a result, conceptual and problem solving knowledge acquired in school remains largely inert for many students.

Entrepreneurial Education

The fact that education helps in the development of individual and society at large can never be over emphasized. This is because it plays a vital role in the industrialization of the economy, by providing manpower with professional, technical and managerial skills. It help to create positive attitude and makes possible attitudinal changes necessary for the socialization of individuals, modernization and the overall transformation of societies. For a society to be transformed it requires that individuals

minds should be broadened in order to explore emerging opportunities. And one of the areas which people can explore that will result in the development of society the aspect of acquiring entrepreneurial skills (Kasgok and Goteng 2017).

The present economic realities especially the economic recession and the fluctuation in oil prices and the cost of governance of the nation which has led to increase in the labour market has brought the need for entrepreneurship education to the fore. Entrepreneurship education have been defined from different points of view. Akinwumi, (2012) described entrepreneurship as an act of identifying, initiating, organizational strategy and promotional strategy. While Eze (2012) opined the entrepreneurship as a form of education that is commonly recognized by every society for job creation especially for the jobless and dropouts. He further described it, as a strategy for solving social problems of unemployment, poverty unbalanced technological development.

The consortium of entrepreneurship skills 2004 cited in Kasgok and Goteng (2017) presents these skills as a form education that seeks to prepare people especially youths to be responsible enterprising individuals who become entrepreneurs and entrepreneurial thinkers and contribute to economic development and sustainable communities. It is also seen as the process of discovering new ways of combining resources. Sobel (2008). This depicts the fact that entrepreneurship skills are like catalyst for business formation as it teaches students and youths how to start and run their own businesses, play the stock market roles and balance personal life.

Who is an Entrepreneur?

An entrepreneur is an innovating who has developed an ongoing business activity where non existence before (Kasgok and Gobeng 2017). Also an entrepreneur is an individual who undertakes self directed initiatives and assumes personal risks in creating and operating a profit oriented business. Entrepreneurship is derived from the root word “entreprende” in French which means “to undertake”. An entrepreneur is an individual that is characterized by hard working, have self-confidence and profit oriented approach also have capacity to cope with failure, demonstrate, initiate, set how own standard, always good oriented and posses reliability and integrity.

Saidu, (2017) stated that there are many reasons to become an entrepreneur in Nigeria. Some of these reasons are unemployment, under employment, premature retirement, quest to sustain one’s family and to be above poverty line.

An entrepreneur is a person or persons who possesses the ability to recognize and evaluate business opportunities, assemble the necessary resources to take advantage to them and take appropriate action to ensure success. Entrepreneurs are people who constantly discover new markets and try to figure out how to supply those markets efficiently and make profit. He change and exploits change by converting change into business opportunity (Meredith 1983).

Ihugha, Odi and Njoku (2013) in Ajileye posited that the growth in an economy is determined by the qualities of entrepreneurs lead the economic revolution and improve the standard of living for people in any given country. This is because their activities determine whether capital would grow rapidly or slowly and whether the growth involves innovation, where new products and production techniques are developed. According to them the different in economic growth rates of nations in the globe is largely due to the quality of entrepreneurs in those nations. The entrepreneurs organize production factors such as land, labour and capital for productive ventures. The role of entrepreneurs include economic development, creating employment opportunities, improving the standard of living of the citizens, making reduction in rural-urban movement, developing local technology and conserving foreign exchange.

Entrepreneurship like any other worthy endeavour is not without challenges. Ihughba, Odi and Nojuku (2013), highlighted some of the challenges faced by entrepreneurs in Nigeria to include lack of credit facilities, high interest rate in bank loans, corruption, Nigeria to include lack of credit facilities, high interest rate in bank loans, corruption inconsistent government policies multiple taxation, poor site of the country's infrastructure, failure to adapt to the changing business environment and low standard of education. Others include security issues, political turmoil, gender discrimination, poor planning, poor product or services and large population. Entrepreneurship is capital intensive.

According to them, the most crucial challenges of an entrepreneur is shortage of fund. Where there is interest especially by the youths and there is no capital, hardly can be entrepreneur be a success in the goods and services provided.

Objectives of Entrepreneurship Education

Entrepreneurship education according to Paul (2005) is structured to achieve the following objectives.

1. To offer functional education for the youth to be self-employed and self-reliant.
2. To provide the young graduates with adequate training that will enable them to be creative and innovative in identifying novel business opportunities to serve.

Cognitive Apprenticeship as an Institutional Strategy Entrepreneur Skills and Education

Teaching and learning to be effecting, it is not just a passive absorption of imparted knowledge. Education which does not influence learners conduct is useless (Patrick, 2002). Therefore it is necessary to note the following:-

- Whatever has to be learnt must be learnt by doing.
- Instead of making the learner stick to books and encourage rote learning, keep them busy in the workshop or whatever or where their hands will work to the benefits of their heads.
- Knowledge should be as a result of meaningful activities performed.

- Note that verbal system of teaching suits neither the faculties of the learners nor the circumstances of social life.
- 3. To serve as a catalyst for economic growth and development to offer tertiary institution graduates with adequate in risk management in order to make certain bearing feasible.
 - To reduce high rate of poverty
 - To create employment generation
 - To reduce rural-urban migration
 - To provide the young graduates with enough training and support that will enable them to establish a career in small and medium sized businesses.
 - To inculcate the spirit of perseverance in the youths which will enable them to persist in any business venture they embark on.
 - To create smooth from traditional to a modern industrial Economy.

Difference between Traditional and Cognitive Apprenticeship

The basic notions of apprenticeship are showing the apprentice how to do a task and helping the apprentice to do it Lave (1977).

There are three major different between the traditional and cognitive apprenticeship (Collins et al 1999).

In traditional apprenticeship, the process of carrying out a task to be learned is usually easily observable while in cognitive apprenticeship one needs to deliberately bring the thinking to the surface, to make it visible, whether its reading, painting, problem solving etc. It is necessary that, the teachers thinking must be made visible to the students and the students thinking must be made visible to the teacher. (Dennen, 2007).

By bringing these tacit processes into the open, students can observe, enact and practice them with help from the teacher and also from other students.

The second difference between the traditional and cognitive apprenticeship is that in traditional apprenticeship, the task come up just as they arise in the world. Learning is completely situated in the work place (Lava 1988). For example in a tailoring workshop when task arise in the context of designing and creating tangible products i.e. finished clothes, apprentices naturally understand the reasons for undertaking the processes of apprenticeship as they are motivated to work and to learn the sub components of the task, because they realize the value of the finished product. They retain what they must do to complete the task, because they have seen the experts model of the finished product, and complete the task, because they have seen the experts model of the finished product, and complete the task, because they have seen the experts model of the finished product, and so the sub-components of the task make sense. On the other hand in the case of cognitive apprenticeship, school teachers and working with a curriculum centred around reading writing, science, maths, history etc. that is, in large part divorced from what students and must adults do in their live. In cognitive

apprenticeship, the challenge is to situate the abstract tasks of the school curriculum in contexts that make sense to students.

The third difference is the in traditional apprenticeship, the skills to be learned are inherent in the task itself. For instance to craft a garment, the apprentice learns some skills, unique to tailoring, like stitching putting button holes. Carpentry does not require that the apprentice know anything about button holes. That is in traditional apprenticeship, it is unlikely that students encounter situations in which the transfer of skills is required. But in cognitive apprenticeship, the task demand that students be able to transfer what they learn. The main challenge is cognitive apprenticeship is to present a range of tasks, varying from systematic to divers, and to encourages students to reflect on and articulate the elements that are common across task. As teachers present the targeted skills to students, they can increasingly vary the context in which those skills are useful. The goal is to help students generalize the skills, to learn when the skill is or is not applicable, and to transfer the skill independently when faced with novel situations.

Learning by doing is imperative in any successful learning since it utilizes and stimulates all senses that help acquisition and retention. Learners rigorously participate in an activity for instructional purposes that will be effectively useful and lead them to physically and mentally improve skills. (Okam, 2016). In order to translate the model of traditional apprenticeship to cognitive apprenticeship, Collins et al 1999 stated that teachers need to do the following:-

- Identify the processes of task and make them visible to students.
- To Situate abstract tasks in authentic contexts so that students understand the relevant of the work.
- Vary the diversity of situation and articulate the common aspects so that students can transfer, such skill to real life situation when the need arise.

Origin of Cognitive Apprenticeship

Cognitive apprenticeship model originated from Lave and Wenger in 1991 as a direct theoretical underpinnings, from a field work has he examined the practices of apprentices working in a traditional tailoring workshop in West Africa. Lave in seeking to determine if schooling is the only route to develop reasoning abilities, gathered evidence that indicated apprenticeship training builds aptitude for problem solving, while observing tailors and apprentices.

Lave (1988) cited in Tompkins 2016 isolated the approaches that contributed to the acquisition of knowledge which can be summarized as observation, imitation and feedback.

Subsequently Collins, Brown and Holum (1991) developed cognitive apprenticeship (CA) as a method to illuminate the thought processes of teachers and other experts while they deliver instruction in problem solving, close reading, critical thinking and other higher order reasoning. Cognitive apprenticeship (CA) achieves this goal by

uniting instructional techniques found in traditional craft apprenticeship programmes to those practices enacted in a classroom. The result is a method comprising a learning environment that consists of four dimensions. These are;

- a. *Content*:-Strategies to acquire knowledge that involve not only obtaining the relevant concepts and facts associated with a subject, but also with the best approach for acquisition of knowledge.
- b. *Methods*:-Tactics that synthesize molding, coaching and scaffolding teaching techniques, with methods that promote articulation, reflection and exploration.
- c. *Sequencing Complexity* of tasks combined with tools that develop skills necessary to master a subject.
- d. *The sociology of a learning environment*:-policies that create a community of interactive learners.

Brown (1998) said “The central issue in learning is becoming a practitioner; not learning about practice.” In line with the above statements, Enkenberg (2001) criticizes university education because the learning tends to occur separately from expert practice. According to Pratt and Collins (2014), this separate or dichotomy is problematic because expert practice is critical to real world performance and is difficult to simply teach i.e. Entrepreneurial skills by lecture or explanation.

CA requires making tacit processes visible to learners so they can observe and practice them. Dennen (2007) outlined seven instructional strategies that support the achievement of the goals of cognitive apprenticeship. They are as follows:

- a. *Modeling* – Meaning the demonstration of the temporal processing of thinking.
- b. *Explanation* – Explaining why activities take place as they do.
- c. *Coaching* – meaning the mentoring of students activities, assisting and supporting them where necessary.
- d. *Scaffolding* – Support of student so that they can cope with the task and situation. The strategy also entails the gradual withdrawal of teacher form. The process, when the students can manage on their own; the process of gradual withdrawal by the teacher is also known as fading.
- e. *Reflection* – The students assesses and analyzes his/her performance.
- f. *Articulation* – The results of reflection are put into verbal form.
- g. *Explorations* – The students are encouraged to form hypothesis, to test them and to find new ideas and viewpoint.

Why Cognitive Apprentice for Instruction

Education has a tool for development is given its pride of place in every face of human existence. The development of human capital require meeting the present and future challenges of the globalization. Acquisition of necessary skills and knowledge is the focus of education system all over the world. (Dike, 2014).

In Nigeria, the universal basic education (UBE) was developed in line with the need for relevant, dynamic and globally competitive education that will ensure that

learners are capable and able to compete favorably anywhere in the world in terms of knowledge, skills, techniques and the overall community development. The UBE curriculum characterized by critical thinking and entrepreneurship skills. It is evident that the current universal basic education curriculum operation in Nigeria is in line with the need to prepare younger generation to not be useful to them but also to be entire society. (Kabir and Zakari, 2017). The Nigeria UBE curriculum is concerned with making young learner create change in the learning environment by engaging in activities that will make them not only relevant to themselves, but also to be entire community. In this sense, the reform initiative in science, technology, vocational education and training are specifically designed to provide the contents, skills and learning experience for the socio-economic transformation of Nigeria (Umunadi, 2014).

In recent times the recognition and popularity of facilitating learning of all types through social methods have grown tremendously. Educators and educational researchers.

Have looked to informal learning instructional methods and activities that take advantage of social constructivist methods (Collin et al, 1999).

Cognitive apprenticeship is essentially the use of an apprentice model to support the cognitive domain (Dennen, 2007). The concept of cognitive apprenticeship is defined as learning through guided experiences on cognitive and Meta cognitive rather than physical skills and processes (Collins, Brown and Newman, 1989).

One cannot engage in a cognitive apprenticeship alone, but rather it is dependent on expert dependent on expert demonstration (which is modeling) and guidance (coaching) in the initial phases of learning. Most times in this approach, learners are challenged with tasks slightly more difficult than they can accomplish on their own and must rely on assistance and collaboration with others to achieve these tasks. In other words, learner must work with more experienced individuals and with time move from a position of observation to one of active practice. The learning tasks in cognitive apprenticeship are holistic in nature and increase in complexity and diversity overtime as the learner becomes more experienced. A major advantage of learning by cognitive apprenticeship as opposed to traditional classroom based method is the opportunity to see the subtle, tacit elements of expert classroom based method is the opportunity to see the subtle, tacit elements of expert practice that may not other wised be experienced in a lecture or knowledge – dissemination format (Dennen and Burner, 2008). Collins, et al, (1989) developed cognitive apprenticeship (CA) in response to the dichotomy between learning in the classroom and the tangible activities that may result from professional practice or other real life situations. They are of the opinion that in some cases schooling reduces the activities, culture and context that feed the development of knowledge. That is school, students learn abstract concepts which are often separate from concrete situations and activity. Cognitive apprenticeship (CA) works to counteract the division by moving students closer to actual behaviours and conditions related to content studied in the classroom.

Prospects Entrepreneurs Skills through Cognitive Apprenticeship in the Niger Delta

The Niger delta is the world's largest wetland and 'Africa's largest delta. It covers a geographical land mark area of 70,000km² (World bank report, 1995) It has been long it existence before British discovery of Nigeria in 1840, though the Portuguese passed through the Niger delta and met and IZONS as aborigines of the Niger Delta in 1380 (Etekpe, 2007).

It is a criss-cross of estuaries which has proved a huge problem to its development as it has made an herculean task to reach the hinterlands of the region.

The Niger Delta region, prior to the discovery of oil in commercial quantities was dominated by agriculture. The region was noted for palm oil and rubber production which constituted the major revenue source for Nigeria. Apart from palm oil and rubber, the region is endowed with fish and wild animals of diverse kind (Edoumiekumo 2015) The region had an economic system that made provision for the needs of her people and the immediate neighborhood and beyond even before the establishment of British colonial administration.

Niger Delta region, apart from crude oil and gas is also endowed with solid mineral resources such as clay, lime stone, lead/zinc, uranium salt, iron-ore, Kaolin, marble coal, Dolomite, Phosphate, Bitum, Manganese Glass-sand among many other (Edoumiekumo 2015).

In spite of this numerous natural endowment, the inhabitants of the Niger Delta face a high level of privation, suffering and poverty. Even after Independence in 1st October 1960, the lot of the people of the Nigeria. Various poverty reduction efforts in the south-south Geopolitical zone to provide people especially rural households equal opportunity to achieve their potentials have not been quiet successful.

It is in the face of this failed that this paper is presenting cognitive apprentice as a tool to impart entrepreneurial skills among the teeming youths (both graduates and school dropouts) as a means of poverty reduction. Some of the prospects are as follows:

- I. There will be peaceful environment for meaningful development. As the adage goes 'An idle mind is the devil's workshop' the development of entrepreneurial skills will occupy people meaningfully as they will scout for good business opportunities to be engaged in and make a living. This will pave way for development as it will put an end to the incessant crises that has stop many development effort by the government and even oil companies operating in the area.
- II. It will reduce the pressure on the labor market as many will be able to be self-employed as they practice skills learnt in various fields to meet needed services in their environment to earn money. These could be in buying and selling or rendering of services in vocational skills such as Tailoring, Black smiting, Gold smiting, Carpentry, Pottery, Poultry, Cottage industries, agriculture – rabbit and fish farming, maize, cassava farming to mention but a few.

- III. It will greatly reduce the search for white-collar or already made jobs by our youths as they use acquired skills and manage their own business enterprises
- IV. The problem of rural-urban drift will be reduced as people will settle in the environments that will suit their business. eg. Large scale farmers will dwell at the country side or semi urban settings.
- V. It will improve people's standard of living and help solve the problems of unemployment and under employment
- VI. Good entrepreneurship education will also lead to profitable business which will drastically reduce youth restiveness, kidnapping, oil pipe vandalism, militancy, ritual killing in the region and other social vices.

Challenges

- To fit this instructional style into the already crowded university curriculum
- To get sufficient expert craft man who are literate or semi-literate from which this students can learn form
- Though entrepreneurship education is a compulsory general studies course in many literary institutions, it will make more impact if these skills are separated and thought distinctly as required in the various crafts, business ideas business secret and managerial skills.
- The problem of what courses to remove to give room for compulsory teaching of entrepreneurship education will be a problem
- Availability and willingness by these experts to teach and impart such skills and wealth of experience will such will be also pose a challenge
- Remuneration of expert. A the Holy Bible says in every labour, there is profit; will the government of the day, be willing to pay these experts for their services is another question to answer
- What Quality control measures will be put in place to make sure students get the best from the experts in cognitive apprenticeship method, is also challenge to be handled

Recommendations

1. Cognitive Apprenticeship a an instruction style should be adopted as a method of teaching entrepreneurial skills so as to make entrepreneurs more grounded in the application of such skills in real life situations.
2. The use of cognitive apprenticeship as a teaching method should be emphasized so as to bridge the gap between theory and practice of the acquisition of entrepreneur skills
3. Train the trainer workshop should be organized for teachers and lecturers on the usefulness fo cognitive apprenticeship has an instructional method.

4. The curriculum should be designed to suit the use of successful experts in various business fields as role models while trainees of entrepreneurial skills should be attached to them as apprentices.

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