

Entrepreneurship Education Curriculum Content: Beyond Literacy and Numeracy for Functional Education in Tertiary Institutions in Nigeria

American Journal of Education and Learning

Vol. 4, No. 2, 191-199, 2019

e-ISSN:2518-6647



(✉) Corresponding Author

Ereh, Cecilia Emuji¹

Anthony, Emediong Ini²

Ikpo, Patrick Andelehe³

^{1,2}Department of Curriculum Studies, Educational Management and Planning, University of Uyo, Uyo Akwa Ibom State, Nigeria.

¹Email: Ceciliaereh@yahoo.com Tel: 08067884482

²Email: emediong_joseph@hahoo.com Tel: 08033815683

³Department of Social Science Education, Faculty of Education, University of Calabar, Cross River State, Nigeria.

³Email: patrickikpo@gmail.com Tel: 080269359562

ABSTRACT

This study examined the relationship between entrepreneurship education curriculum content: beyond literacy and numeracy, for functional education in tertiary institutions in Nigeria. One objective, one research question and a null hypothesis was formulated to guide the study. Ex-post facto research design was used for investigation. The population of the study comprised all the 387 postgraduate students in the Faculty of Education, Universities of Uyo, and Calabar. The sample for this study consisted of 197 postgraduate students, selected using multi-stage sampling technique. A researcher-developed instrument titled "Entrepreneurship Education Curriculum Content Questionnaire (EECCQ)" and "Functional Education in Tertiary Institutions Questionnaire (FETIQ)" were used for data collection. The reliability of the questionnaire was determined using Cronbach's Alpha analysis and the indices for both instruments were .855 and .896 respectively. The coefficient (R) of simple linear regression was used to answer the research questions, while simple linear regression analysis (F) was used to test the null hypothesis at .05 level of significance. The finding was that, there is a significant relationship between entrepreneurship education curriculum content, and functional education in tertiary institutions. It was concluded that, entrepreneurship education curriculum content with adequate practical experiences could impact on functional education and thereby promote graduates self-employment. It is recommended therefore that, the curriculum planners/developers should revisit the entrepreneurship education curriculum content to include practical experiences. This will help to enlist learners' interest and equip them with useable skills for useful living in the society, which will reduce the rate of unemployment amongst graduates in Nigeria.

Keywords: *Entrepreneurship, Education, Curriculum, Content, Literacy, Numeracy, Functional, Tertiary institutions.*

DOI: 10.20448/8044.2.191.199

Citation | Ereh, Cecilia Emuji; Anthony, Emediong Ini; Ikpo, Patrick Andelehe (2019). Entrepreneurship Education Curriculum Content: Beyond Literacy and Numeracy for Functional Education in Tertiary Institutions in Nigeria. American Journal of Education and Learning, 4(2): 191-199.

Copyright: This work is licensed under a [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/)

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

History: Received: 27 February 2019/ Revised: 9 April 2019/ Accepted: 12 June 2019/ Published: 22 July 2019

Publisher: Online Science Publishing

Highlights of this paper

- This study examined the relationship between entrepreneurship education curriculum content: beyond literacy and numeracy, for functional education in tertiary institutions in Nigeria.
- This study was concluded that, entrepreneurship education curriculum content with adequate practical experiences could impact on functional education and thereby promote graduates self-employment.

1. INTRODUCTION

1.1. Background of the Study

There is increased number of graduates coming out from various tertiary institutions seeking employment opportunities in Nigeria in recent times. The tertiary institutions are established to develop societies and individuals through development of higher manpower imbued with physical and intellectual skills needed for self-reliance and sustainable national development. The extent to which the tertiary institutions succeed in achieving their educational objectives depend on the type of education given to its citizenry to relevant to them. Education is considered a determinant factor for developing entrepreneurship skills, especially where there is little or no skills. [Borroffice \(2008\)](#) pointed out that, the Federal Government directed all institutions of higher learning in Nigeria to introduce entrepreneurship education as a compulsory course for all students, irrespective of their disciplines.

In ensuring proper inculcation of entrepreneurial skills such as creativity, problem solving, time management, communication and leadership skills in graduates towards gaining knowledge, to be able to understand the way the economy and market forces works, the educational system therefore needs to strengthen entrepreneurship education with a rich and appropriate curriculum course content. Curriculum content can be described as all the academic contents taught in schools or in a specific course or programme. It can also be seen as the knowledge, skills, attitudes as well as extracurricular activities imparted to learners through teaching and learning. It is the subject matter or topics consisting of facts, concepts, ideas and knowledge within a particular course, based on a duration and how it will bring about a relatively permanent change in an individual and the society. The curriculum content has to be comprehensive and well-arranged, with up-to-date facts concerning the specific course. It is believed that when the curriculum content is not relevant to the needs of the individuals, students and the society, students' interest will not be registered to enable effective learning, therefore the system is bound to produce poorly skilled graduates who cannot defend their certificates, thereby unable to secure employment. This could mean that education has not gone beyond literacy and numeracy, and so, it is not functional. It is therefore imperative that, entrepreneurship curriculum content must be rich with practical experiences, relevant to the needs of the learners and the society. It is only then that students' interest can be enlisted, for effective learning to be equipped with useful skills that will lead to either gainful employment or self-employment as entrepreneurs.

Entrepreneurship is seen as one of the elements that determines economic development and growth. Education is a process of moulding individuals' behaviour to fit into the society. Education as content is knowledge, skills and attitude. Entrepreneurship education could therefore be described as a learning opportunity to acquire knowledge, recognition, marshalling of resources in the presence of risk and building of ventures. [Postigo and Tomborini \(2002\)](#) asserts that, it is commonly believed that entrepreneurship education is an imperative to make positive contributions to improving the entrepreneurship orientation of people, leading to the acquisition of skills, creativity, confidence, drive and courage, in order to create employment for self and others.

The ability of tertiary institutions to expose students to practical entrepreneurship education will enhance entrepreneurial drive, skills retention in learners, and if well packaged, can reduce the lingering unemployment challenges among graduates, as it will ensure stable growth in the provision of employment options for Nigerian graduates. Entrepreneurship education could lead to capacity building for graduates mentally, physically and

intellectually. This will place the learners on advantage position of acquiring, interpreting and consequently applying such capabilities in building self confidence, that will enable them to become self-employed. Inculcation of entrepreneurship skills in students in tertiary institutions will mean that, education is functional and can provide the needed solution to the complex societal, especially problems by reducing, if not totally eliminating poverty and ignorance caused by unemployment among graduates. Osakwe (2011) stated that the absence of inculcating the needed skills in learners may result in job seeking after graduation that constitutes the under-development of the nation's economy. It can be deduced from the foregoing that, when education is beyond literacy and numeracy, it will be functional, since graduates will be fully equipped through practical lessons in schools. This will make them to be able to exploit their potentials such as, school farm management thereby generating funds to support school needs, management of school facilities and writing business proposal etc. It will guarantee self-employment after graduation.

Contrary to this, it has been observed that, despite the established roles of the tertiary institutions and emphasis by the federal government on entrepreneurship education, it seems students have not still been able to acquire the basic skills such as, creativity, innovation, and problem-solving, time management and communication skills, to become useful to themselves or the society after graduating from school. There are complaints from parents and the society on graduate's poor skills and attitudes to depend on their personal abilities or ideas. The reasons could be attributed to inadequacies in curriculum content arising from shallow curriculum devoid of practical experiences in the curriculum content resulting abstract learning, poor development of entrepreneurship education skills due to inadequacy of good and quality facilities leading to non-achievement of the tertiary education goals, thereby making education not functional. This might be the reason for increased unemployment, resulting to robbery, prostitution, human trafficking, organ harvesting, smuggling of migrants and kidnapping amongst others.

This has become a problem to the society manifested in an alarming rate of unemployed graduates. This has become a problem whereby the society laments, making scholars try to find solutions to the problems. For instance, Ineghenebor (2013) conducted a study at the University of Benin in Nigeria, on education and entrepreneurship experience and found out among others that, adequate course content has positive impact on the students. In the same vein, Lesko (2010) conducted a study in Hungary on course duration of entrepreneurship education, the study revealed among others that, time allotted for the teaching and learning of entrepreneurship education influences students' learning of entrepreneurial skills. Despite the contributions of studies as highlighted earlier, the problem still persists. It has also been observed that, studies carried out on entrepreneurship education in tertiary institutions are few. This has created a gap, which this study on entrepreneurship education curriculum content: beyond literacy and numeracy, for functional education in tertiary institutions intends to fill. The question therefore is, can this study on entrepreneurship education curriculum content: beyond literacy and numeracy for functional education in tertiary institutions be used to reverse this ugly trend?

1.2. Research Questions

The following research question was raised to give direction to this study:

What is the extent of the relationship between entrepreneurship education curriculum content: beyond literacy and numeracy for functional education in tertiary institutions?

1.3. Hypothesis

There is no significant extent of relationship between entrepreneurship education curriculum content beyond literacy for functional education in tertiary institutions in Nigeria.

2. RELATED LITERATURE

2.1. Theoretical Framework.

2.1.1. Theory of Entrepreneurship by Alberti, Sciascia and Poli (2004)

This theory was propounded by Alberti *et al.* (2004). The theory states that for effective entrepreneurship education, there should be a relationship between the goals of entrepreneurship programme, the audiences to which the programme is delivered, the contents of the entrepreneurship courses or modules, the method of delivery or pedagogy and finally, the assessment that will be used. Alberti, Sciascia and Poli maintained that entrepreneurship is a practiced behaviour. It is a discipline and like any other discipline it can be learned. This theory explains the relationship between entrepreneurship education and employable skills/self-employment. This theory emphasises that instead of seeking white collar jobs, graduates of Nigerian Universities, given the rightful entrepreneurship education, should be job creators and Innovators, not job seekers. With entrepreneurial studies entrenched in various universities' curriculum content, the expectation is that unemployment rate among youths would drop.

2.2. Conceptual Framework and Empirical Review

2.2.1. Entrepreneurship Education.

Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. Variations of entrepreneurship education are offered at all levels of schooling, ranging from primary, secondary schools through graduate university programmes (Rasmussen and Sørheim, 2006). Entrepreneurship education means many different things to educators ranging from primary schools to the university, from vocational education to higher degrees. At each level of education, it is reasonable to expect different outcomes as students mature and build on previous knowledge. But the overall purpose remains to develop expertise as an entrepreneur. The Consortium for Entrepreneurship Education (2013) opined that the concept of entrepreneurship education is a lifelong learning process. Life long learning model assumes that everyone in our educational system should have opportunities to learn at the beginning stages, but the later stages (university) are targeted to those who choose to become entrepreneurs.

Entrepreneurship education focuses on the development of useful skills or attributes that could enable the realization of opportunities, where management education is focused on the best way to operate existing within the hierarchies. Both approaches share interests in achieving "profit" in some form (non-profit organizations or government can take the form of increased services or decreased cost or increased responsiveness to the customer/citizen/client). Entrepreneurship education to (Miron-Shatz *et al.*, 2014) can be oriented towards different ways of realizing opportunities such as:

- (a) The most popular one is regular entrepreneurship: opening a new organization e.g. starting a new business, the vast majority of programmes at the university level teach entrepreneurship in a similar way to other business degrees. However, the UK Higher Education system makes a distinction between creativity and innovation aspects, which it sees as a precursor to new venture development.
- (b) Another approach is to promote innovation or introduce new products or services or markets in existing firms. This approach is called corporate entrepreneurship or Intrapreneurship, and was made popular by author Gifford Pinchot in his book of the same name. Newer research indicates that clustering is now a driving factor. Clustering occurs when a group of employees breaks off from the parent company to found a new company but continues to do business with the parent. Silicon Valley is one such cluster, grown very large.

- (c) A recent approach involves creating charitable organizations (or portions of existing charities) which are designed to be self-supporting in addition to doing their good works. This is usually called social entrepreneurship or social venturing. Even a version of public sector entrepreneurship has come into being in governments, with an increased focus on innovation and customer service..
- (d) Entrepreneurship is also being developed as a way of developing skills such as risk-taking and problem solving that facilitate achievement of life goals in education.

2.3. Entrepreneurship Education Curriculum Content

Curriculum content is defined as the lesson and academic content taught in schools, a specific course or programme. It is the knowledge, skills and attitudes imparted by teachers during in learning areas, subjects and or extra-curricular activities. Curriculum contents are new ideas, activities that could stimulate skills acquisition. It is the knowledge and skills which students are expected to learn. Curriculum is concerned with the why, what and how of instructions. These curriculum elements form the beacon for the development and implementation of entrepreneurship curriculum. This should constitute a core curriculum for every learner at all levels of education in Nigeria.

[Consortium for Entrepreneurship Education \(2004\)](#) maintained that it is a lifelong learning process starting from elementary level to other levels of education and spanning to adult education. [Brown \(2000\)](#) opined that “the principles of entrepreneurship are increasingly considered valuable for students at all levels”. Both definitions imply that all students at all levels of education in Nigeria are exposed to entrepreneurship education. There is no doubt that the effective implementation of entrepreneurship education curriculum will help learners in Nigeria to develop entrepreneurial capacities and the ability to be self-reliant and self-employed.

[Brown \(2000\)](#) stated that entrepreneurship education curriculum entails the contents for the teaching and learning of entrepreneurship education. Just like any other subject, entrepreneurship education has its own curriculum. The objectives of the programme are to:

- (a) Create an entrepreneurship culture among students of the Universities and the society in general;
- (b) Ensure that all undergraduates of the Universities are knowledgeable about entrepreneurship and motivated to establish their own businesses on completion of their degree programmes.
- (c) Assist students identify opportunities and the avenues for acquiring resources required for successful entrepreneurial pursuits.

This was a significant innovation in the Nigerian Universities System ([Brown, 2000](#)). To coordinate and facilitate the new University wide programme, a Centre for Entrepreneurship Development was established. These show clearly that entrepreneurship education occupies a strategic position in the Universities. What has now been articulated in the Strategic Plan of the Universities is the accumulation of several years of experience in entrepreneurship education. Of these programmes, only the 2-credit hour University-wide entrepreneurship course has taken off. The aim of the course is to introduce students to the basic concepts and practice of entrepreneurship. The course objectives which could enable students learn entrepreneur skills are as follows:

- (a) explain the nature and responsibilities of an entrepreneur in starting and running an enterprise;
- (b) identify and analyse business opportunities;
- (c) develop a business plan
- (d) Identify, secure and manage resources effectively.

The teaching method for this course objectives emphasizes more of lectures instead of practical experiences. In this regard, [Ineghenebor \(2013\)](#) conducted a study on education for entrepreneurship experience at the University of Benin, Benin City, Nigeria with a sample size of 187 students. Descriptive survey design was used in conducting the study. Data were basically generated from questionnaire and analysed using percentage. The result of the study showed that there are strong indications that students have a positive attitude to the course.

Similarly, [Unachukwu \(2009\)](#) conducted a research to determine the extent to which entrepreneurship education curriculum content enhance undergraduate development of entrepreneurship skills towards self-employment in Anambra State. A stratified random sampling technique was used in selecting a total of 150 students from a population of 1509 university students in Anambra State. Questionnaire was used to elicit information from the respondents. Chi-square was used to analyse the data collected. The findings of the study revealed that 78% of the respondents agreed that entrepreneurship curriculum content has significant effect on graduate students' development of entrepreneurial skills for self-employment. This finding of this study implies that entrepreneurship curriculum content is significantly related to functional education.

3. RESEARCH METHODS

3.1. Design of the Study

The research design used for this study was ex-post facto design. Ex-post facto design is a design for conducting a research when the variables are already in place and cannot be manipulated. This design was suitable because it is non-experimental.

3.2. Area of the Study

The study was conducted in University of Uyo, Uyo, Akwa Ibom State. University of Uyo metamorphosed from Advanced Teachers Training College (ATTC) through College of Education to a State university and at present it serves as a recognised federal university in Akwa Ibom State since October 1, 1991 by the Federal Government of Nigeria. The University of Uyo inherited students, staff, academic programmes and the entire facilities of the erstwhile University of Cross River State (UNICROSS) established by Cross River State in 1983. The School of Continuing Education of University of Uyo has 387 postgraduate students during the 2015/2016 academic year.

3.3. Population of the Study

The population of the study comprised all the 387 postgraduate students in the Faculty of Education, University of Uyo, Uyo during the 2015/2016.

3.4. Sample and Sampling Technique

The sample of this study consisted of 197 postgraduate students representing 51 percent of the population of the study. The study adopted multi-stage sampling technique. This technique was adopted because it allows the use of other sampling techniques in the study; such that the entire Department in the Faculty of Education can be equally represented since the population of Postgraduate students in each Department were not the same. At first, departments were grouped into clusters (7 departments); Proportionate sampling technique was used to select 51 percent of the PG students from each Department in the Faculty of Education, Education, University of Uyo, Uyo. Simple random sampling technique with hat and draw method was used in the selection of students from the 7 departments for the study. The reason for the choice of postgraduate students was that they have acquired enough

entrepreneurial skills during their undergraduate years that could equip them for self-employed before their postgraduate days.

A researcher-developed instrument titled “Entrepreneurship Education Questionnaire (EEQ)” and Functional Education Questionnaire (FEQ)” were used for data collection. (EEQ) was designed to obtain information from students on entrepreneurship education. Thirty (30) items were constructed in line with the constructs of the independent variable. Thirty(30) items were constructed in line with the constructs of the dependent variable. Both instruments were constructed on a four point rating scale. For EEQ: SA= Strongly Agree-4points, A= Agree-3points, D=Disagree 2points, SD= Strongly Disagree-1point. For FEQ E=Excellent-4points, G=Good-3points, F=Fair-2points, P=Poor-1point.

The instruments were validated by two Validates in measurement and evaluation, in the department of educational foundations, and three Validates in Educational Management and Planning, faculty of Education, University of Uyo, Akwa Ibom State. The items were scrutinised to ensure the suitability and appropriateness of the instrument. Corrections and modification by Validates were effected. Cronbach’s Alpha was used to establish the reliability of the instruments EEQ and FEQ. The instrument was trial-tested on twenty (20) randomly selected postgraduate students who were not participant in the actual study. The reliability indices for both instruments were .85 and .89 respectively. This shows that the instruments were reliable and fit for use.

Simple Linear Regression Coefficient R was used to answer the research questions, while the calculated F-value of the simple linear regression was used to test the null hypotheses at 0.05 level of significance, In answering the research questions, the decision rule by Evans in [Condouris et al. \(2003\)](#) was used to show the strength and direction of the extent of the relationship between entrepreneurship education beyond literacy and numeracy for functional education. While in testing the null hypotheses, the F-calculated was compared with F-critical at 0.05 level of significance. If the calculated F-value is greater than the critical F-value,the null hypothesis was rejected and if calculated F-value was less than the F-critical value, the null hypothesis was retained.

3.5. Decision Rule

- ± .00 - .19 very weak relationship
- ± .20 - .39 weak relationship
- ± .40 - .59 moderate relationship
- ± .60 - .79 strong relationship
- ± .80 - 1.0 very strong relationship
- 1 = perfect negative relationship
- 0 = no relationship
- +1 = perfect positive relationship

4. RESULT

4.1. Answer to Research Question

Research Question: What is the extent of the relationship between entrepreneurship education curriculum content: beyond literacy and numeracy for functional education in tertiary institutions?

Table-1. Summary of simple linear regression of the extent of the relationship between Entrepreneurship Education Curriculum Content beyond literacy and numeracy for functional education in tertiary institutions.

Variables		R	R ²	% of Contribution	Decision
1	Curriculum Content	0.234	0.484	48.40%	Weak relationship

Source: Condouris *et al.* (2003).

Table 1 data shows the R and R² the strength of the extent of the relationship and coefficient of determination between entrepreneurship education curriculum content and functional education. This is shown by the calculated R-value of 0.234 which indicates a weak relationship between the two variables. The R² of 0.484 indicates that curriculum content contributes 48.4% to functional education.

Hypothesis. There is no significant extent of the relationship between entrepreneurship education curriculum content and functional education.

Table-2. Result of Analysis of variance of the simple linear regression for the extent of the relationship between entrepreneurship education curriculum content: beyond literacy and numeracy for functional education in tertiary institutions.

Model	Sum of Squares	Df	Mean Square	F-cal	F-crit	Decision
Regression	75.247	1	75.247	63.14	3.94	*sig
Residual	245.518	194	1.192			
Total	320.764	195				

*significant. 0.05

Table 2 shows that the F-calculated of 63.14 at .05 alpha level with 1 and 194 degrees of freedom, is greater than the F-critical is 3.936. Since the F-calculated is greater than the F-critical, the null hypothesis is rejected, thus, there is a significant extent of relationship between entrepreneurship education curriculum content and functional education.

5. DISCUSSION

5.1. Entrepreneurship Education Curriculum Content and Graduates' Self Employment Skills Development

The findings revealed that there is a significant extent of the relationship between entrepreneurship education curriculum content and functional education. This result could be attributed to the fact that, involving practical experience in curriculum content in entrepreneurship education would enhance adequate entrepreneurship skills. In other words, when students are exposed to practical experiences in entrepreneurship course, such as farm management (crop and poultry), writing of business proposal or plan etc. These will develop in them the skills that will make them functional and self-reliant after graduation. The finding of this study is in line with the finding of Unachukwu (2009) who conducted a study to determine the extent to which entrepreneurship education curriculum content enhance undergraduate development of entrepreneurship skills towards self-employment and found out that entrepreneurship curriculum content is significantly related to graduates' self-employment. From the respondents' views, the curriculum content of entrepreneurship education should be adequate for inculcating the skill of entrepreneurship to the learners.

The findings of this study is all (Ineghenebor, 2013) who conducted a study on education for entrepreneurship experience at the University of Benin, Benin City, Nigeria and found out that curriculum content has a significant relationship with students' inculcation of entrepreneurial skill development. This therefore means that involving practical experience learning in entrepreneurship education curriculum content will make education functional, thereby enhance skills development for use after graduation. On the basis of the findings of this study, it is concluded that, entrepreneurship education curriculum content with adequate practical experience learning

promotes functional education. It is recommended that, the federal government with the curriculum planners should revisit entrepreneurship education curriculum content to include practical experience learning.

REFERENCES

- Alberti, A., O. Sciascia and A. Poli, 2004. Theory of entrepreneurship London: Macmillan Publishers.
- Borroface, O.B., 2008. Building partnership for entrepreneurship development in Nigerian Universities. Proceedings of the National Sensitization Workshop on Entrepreneurship Development in Nigerian Universities, organized by National board for Technical Education (NBTE) and National Universities Commission (NUC), May 21-22, 2008, Nigeria.
- Brown, C., 2000. Curriculum for entrepreneurship education: A review. Kansa City: Ewing Marion Kauffman Foundation.
- Condouris, K., E. Meyer and H. Tager-Flusberg, 2003. The relationship between standardized measures of language and measures of spontaneous speech in children with autism. *Am Journal of Speech Language Pathol*, 12(3): 349-358. Available at: [https://doi.org/10.1044/1058-0360\(2003/080](https://doi.org/10.1044/1058-0360(2003/080).
- Consortium for Entrepreneurship Education, 2004. National content standards for entrepreneurship education. Ohio, Columbus. Available from <https://www.entre-ed.org/> [Accessed 28 August 2015].
- Entrepreneurship Education, 2013. A guide for educators. Brussels: European Commission — DG Enterprise and Industry.
- Ineghenebor, I., 2013. Entrepreneurship education at the University of Tarapaca, Arica Chile. In APEC Workshop on Embedding Entrepreneurship in University Curriculum, Ha Noi.
- Lesko, T., 2010. Teaching entrepreneurship: The role of education and training—the hungarian experience.
- Miron-Shatz, T., I. Shatz, S. Becker, J. Patel and G. Eysenbach, 2014. Promoting business and entrepreneurial awareness in health care professionals: Lessons from venture capital panels at medicine. *Journal of Medical Internet Research*, 16(8): 184.
- Osakwe, R.N., 2011. A survey on the perception of need for entrepreneurial skills acquisition among undergraduate students of Tertiary Institutions in Delta State (DELSU). *Journal Educational Research Development*, 2(2): 78-106.
- Postigo, H. and M. Tomborini, 2002. Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, 35: 60-85.
- Rasmussen, E.A. and R. Sørheim, 2006. Action-based entrepreneurship education. *Technovation*, 26(2): 185-194.
- Unachukwu, G.O., 2009. Issues and challenges in the development of entrepreneurship education in Nigeria. *An International Multi-Disciplinary Journal*, Ethiopia, 3(5): 89-94.

Online Science Publishing is not responsible or answerable for any loss, damage or liability, etc. caused in relation to/arising out of the use of the content. Any queries should be directed to the corresponding author of the article.