Vol 3 Issue 11 Dec 2013 ISSN No : 2230-7850

Monthly Multidisciplinary Research Journal

Indian Streams Research Journal

Welcome to ISRJ

RNI MAHMUL/2011/38595 **ISSN No.2230-7850**

Indian Streams Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial Board readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

Address:-Ashok Yakkaldevi 258/34, Raviwar Peth, Solapur - 413 005 Maharashtra, India
Cell : 9595 359 435, Ph No: 02172372010 Email: ayisrj@yahoo.in Website: www.isrj.net

Indian Streams Research Journal
Volume-3, Issue-11, Dec-2013
ISSN 2230-7850

Available online at www.isrj.net

Inculcating Creative Problem Solving To Students With Special Needs In Nigerian Universities Through Entrepreneurship Education

Onuigbo, Liziana N (Ph.D) , Fr. Makata Ernest M.ED ,
Nwosu, Eucharia, N. (Ph. D) And Oforka, Theresa, O.
Department of Education Foundations University of Nigeria, Nsukka
Department of Education Foundations University of Nigeria, Nsukka
Department of Education Foundations University of Nigeria, Nsukka

Abs tract:-*The study investigated the strategies for inculcating creative problem solving to students with special needs in Nigerian universities through entrepreneurship education. A survey research design was adopted for the study. Three research questions were formulated to guide the study. 58 lecturers who teach special education served as the population and sample. A 24 item questionnaire titled Creative Problem Solving through Entrepreneurship Education Questionnaire (CPSEEQ) was developed by the researchers and used to elicit information from the respondents. Cronbach alpha reliability method was used to determine the internal consistency of (CPSEEQ) and it yielded a reliability estimate of 0.81. The findings of the study showed that though creative problem solving is an important component of entrepreneurship education, lecturers still stick with the old ideas and methods of teaching entrepeneurship theoretically. It was recommended that universities should move beyond the mere teaching of theories to providing the students with more hands on practice on solving societal problems right from the time they are still students.*

Keyw ords:Special needs, entrepreneurship education, problem solving, universities.

1.INTRODUCTION

Entrepreneurship education is aimed at promoting innovation, self –employment and creative problem solving among individuals in society. According to Jones and English (2004) entrepreneurship education is the process of equipping individuals with the ability to identify commercial opportunities and instilling in them the self confidence, knowledge and skills to act on the opportunities. For Fasasi and Etejere (2009) entrepreneurship education is the systematic teaching of entrepreneurial competencies, concepts, skills, mental processes and cognition needed by an individual during the process of starting and developing their goal-oriented enterprises. Entrepreneurship education has been found to produce self-sufficient enterprising individuals, successful business men, industrialists and people who are able to create wealth and champion innovations Charney and Libecap (2000). In the same vein, Bronte-Tinkew and Redd (2001) noted that entrepreneurship education among other things increases an individual's problem-solving skills, decision-making abilities, interpersonal relationships, teamwork, money management, job readiness and psychological social development.

Recently entrepreneurship education has received great attention in Nigerian education system. It has been made a compulsory course for all students in Nigerian Universities by the National Universities Commission. This is as a result of the worrisome situation where many Nigerian graduates including those with special needs find it difficult to use their talents, abilities and ingenuity to creatively solve the problems facing society. Persons with special needs are classified into three categories in the National Policy on Education (FRN, 2004). They include the disabled, the disadvantaged and the gifted and talented. The disabled involve those with some form of impairment which makes it difficult for them to cope with the regular school curriculum without some modifications in the methods and materials for learning. The disadvantaged are those who through their lifestyle and means of livelihood find it difficult to access the conventional educational system and they include the children of nomadic pastorals, migrant fishermen and hunters. The last group is the gifted and talented who are said to be intellectually precocious and who are endowed with the special ability in arts, creativity, music, leadership, and are, therefore insufficiently challenged by the regular school programme. .

Research has shown that persons with special needs possess some abilities and some have special gifts and talents which must be harnessed to solve some societal problems (Hallahan and Kauffman, 2003). Gallagher,(1998)

noted that some students with disabilities have extraordinary intellectual abilities and talents which have not been properly harnessed and tapped. For instance, those with visual impairment, hearing impairment and physical impairment have the intellectual prowess as their normal counterpart except that they may require some modifications in methods and materials. Heward (2003) citing Renzulli & Reiss, noted that the gifted and talented have some characteristics as high ability, high intelligence, high level of motivation, high creativity, high task commitment and the ability to formulate new ideas and apply them to problem solving. He noted that gifted persons are problem solvers. They are always ready to face the challenge of problem solving and they persist to the end.

Creative Problem Solving (CPS) according to Wikipedia, is the mental process of creating a solution to a problem. It is a special form of problem solving in which the solution is independently created rather than learned with assistance". Creative Education Foundation (2012), views creative problem solving as a way of tackling a problem or a challenge using one's thought process in a new and innovative way. It helps one to re-define the problems he/she faces, come up with new innovative ideas and implement it in order to solve a given problem. Alexander (2007) citing Treffinger noted that creative problem solving is built upon some fundamental principles which include the belief that everyone has creative potential. It can be expressed across many areas or subjects, it is dependent on the interests, preferences, or styles of individuals, and people can develop their creative ability through personal development and deliberate intervention, like training. This goes to prove all the more the urgent need of inculcating creative problem solving into students with disabilities in universities.

The goals of higher education according to the Nigerian National Policy on Education (FRN, 2004) are to develop intellectual capacity, develop values for the survival of individuals, provide enabling and conducive educational environment as well as acquire both physical and intellectual skills that will enable individuals to be self-reliant and useful members of society. Key in this goal or expected outcome is the production of a wholesome, self-reliant individual that is valuable to society. This goal is critical for the students with special needs especially for those who are gifted and talented so as to be equipped with the right skills, knowledge and attitudes that will enable them to maximize their potentials and develop their capacity to solve societal problems. Unfortunately, Nwangwu (2007) noted that the graduates from the universities are not equipped with necessary skills with which to establish their footing in the Nigerian economy. He observes that the inability of the universities to enforce and inculcate the philosophy of self-reliance has led to wastages in terms of human, material and natural resources. Entrepreneurship education was introduced as a compulsory course in all the stages of the Nigerian educational system including the tertiary institutions to remedy the situation (Ewuzie, 2012). This will make all students including those with special needs to develop creative problem solving ability so as to adequately face global competitiveness.

Although entrepreneurship education is a vital part of the university education curriculum and is offered as a general education course, it is observed that the programmes rarely offer students opportunities to explore societal problems and creatively generate ideas on how to solve the problems. They are not given opportunities to creatively initiate changes in societal problem areas. The entrepreneurial programmes are, therefore, not designed to promote creative problem solving. They are taught more as theory than as a means of acquiring practical skills, technical and scientific knowledge that will make the students with special needs find solutions to societal problems. In line with the above, Ifedili & Ofoegbu, (2011) stated that many students see it as an unnecessary course imposed on them to fulfill graduation requirements. However, to help produce graduates who can, through the use of their ingenuity, create solutions to problems facing their society, Backström-Widjeskog (2010) suggested that the entrepreneurship education curriculum content should revolve around fostering creativity, innovation and humanistic values. Thomsen, (2010) also noted that the major characteristics of entrepreneurial education is creativity and innovation. Consequently, a proper Entrepreneurship education would involve creative problem solving.

Teachers are critical in the teaching of entrepreneurship education and many of them do not seem to develop the hands-on skills needed for creative problem solving and small business management. The European Commission Report (2011) opines that teachers need to be equipped with the right skills, knowledge and attitudes which will enable them to provide their students with the new curricula, pedagogies and learning environments that will make them to acquire entrepreneurial competencies. Entrepreneurship education according to Jones & Engish (2004) requires a teaching style that is action oriented and encourages experiential learning, problem solving, project based learning and creativity. European Commission Report (2011) is also of the view that entrepreneurship education will require new entrepreneurial skills, pedagogies and attitudes. The teachers utilize active learning strategies, project-based activities, participatory learning that is 'co-constructed' with those beyond the school, or college.

Entrepreneurship education can facilitate the student's ability to creatively solve societal problems. It has the ability to make students with special needs not only to be self reliant but also be actualized. A good knowledge of creative problem solving assist people to discover, apply and extend their natural talents. Thus students with special needs can benefit maximally through its use since it emphasizes creativity, productivity and an individual's capacity to use knowledge rather than just recalling what was taught. It is against this backdrop that this paper explores how creative problem solving can be inculcated in students with special needs in Nigerian universities through Entrepreneurship Education.

To guide this study three research questions were formulated

1.What are the necessary entrepreneurship education curriculum content needed to make students with special needs become creative problem solvers?

2.What are the challenges of inculcating creative problem skills to students with special needs?
3.What are the strategies for inculcating creative problem solving into persons with special needs through entrepreneurship education?

METHOD

Design

The study adopted a descriptive survey design which sought to determine strategies for inculcating creative problem solving to students with special needs in Nigerian universities through entrepreneurship education.A descriptive survey design according to Nworgu (2006) is one in which a group of persons or items are studied by collecting or analyzing data from only a few people considered to be a true representative of the entire people

Area of the Study: The study was carried out in Nigeria. In Nigeria there are five federal universities that mount special education programmes. The universities are University of Jos, Ibadan, Uyo, Calabar and University of Nigeria.

Population of the Study

The population comprise all the fifty three lecturers that teach special education in the Nigerian Universities

Sample and Sampling Technique

There was no sampling since the number of special educators in Nigerian Universities.

Instrument for Data Collection

The instrument used for data collection was a questionnaire developed by the researchers titled Creative Problem Solving through Entrepreneurship Education Questionnaire (CPSEEQ). The instrument is made up of two parts The first consisted of the demographic data. Part two comprised of twenty four items which were keyed into three clusters

Cluster one addressed the necessary entrepreneur ship education curriculum content needed to make students with special needs become creative problem solvers creative problem solvers, cluster two bordered on the challenges of inculcating creative problem skills to students with disabilities while cluster three focused on the strategies for inculcating creative problem solving to persons with special needs. The questionnaire was built on a four point rating scale of Strongly Agree, Agree, Disagree and Strongly Disagree. These levels of responses are weighted as 4, 3, 2,1 respectively.

Validation of the Instrument

The initial draft of the instrument was given to three experts in Special Education and Measurement and Evaluation for face validation. They were asked to examine the instrument in terms of the relevance of the items, ambiguity of the sentences and clarity of the items. Their input and suggestions were used in modifying the instrument.

Reliability of the instrument

The instrument was trial tested on ten lecturers who teach special education in three state universities. Cronbach alpha was used to compute the internal consistency reliability of the different clusters which yielded 0.79 , 0.84 and 0.88 for clusters A, B and C respectively.

Method of Data Collection

Copies of the Instrument was administered directly to the respondents during the National Council Exceptional Children's Meeting. The questionnaire was collected back from the respondents on-the spot. There was a 100% return of the instrument. . The overall internal consistency reliability estimate of the instrument was 0.81.

Method of Data Analysis

The data collected was collated and analyzed using mean and standard deviation. For the interpretation of the data real limits of numbers were used. An item with a mean ranging from 0.50 – 1.49 is regarded as strongly disagree, 1.50- 2.49 is regarded as disagree, 2.50-3.49 is regarded as agree and 3.50-4.00 is regarded as strongly agree

Results

1.Research Question 1: What are the necessary entrepreneurship education curriculum content needed to make students with special needs become creative problem solvers?

Table 1: Mean and Standard deviation on the necessary entrepreneurship education curriculum content needed to make students with special needs become creative problem solvers N=53

S/No	Necessary entrepreneurship education curriculum content needed to make students with special needs become creative problem solvers	X	SD	Dec
1	Concept of creative problem solving	3.26	0.25	A
2	Creative problem solving strategies	2.94	0.38	A
3	Generating Innovative ideas	3.03	0.56	A
4	Creative problem solving Practicum	3.43	0.67	A
5	Social entrepreneurship	2.73	0.52	A
6	Entrepreneurship and creativity	2.68	0.74	A
7	Business problem solving for the entrepreneur	2.95	0.29	A
8	New venture creation	3.02	0.48	A

Data presented on Table 1 indicate the mean ratings of the respondents on the necessary entrepreneurship education curriculum content needed to make students with special needs become creative problem solvers. Items 1-8 were rated agree with mean ratings ranging from 2.68 -3.43 and with standard deviation ranging from 0.25- 0.74. This indicates that all the items in the Table were the necessary entrepreneurship education curriculum content needed to make students with special needs become creative problem solvers..

Research Question 2 : What are the challenges of inculcating creative problem skills to students with disabilities ?

Table 2: Mean and Standard deviation on the Challenges of Inculcating Creative Problem Skills to Students With Disabilities N=53

S/No	Challenges of inculcating creative problem skills to students with disabilities	X	SD	Dec
9	Lack of developed curriculum that addresses creative problem solving	3.44	0.53	A
10	lack of resource centres and workshops	2.67	0.93	A
11	Lack of technologically-up-to-date- equipment	2.83	0.39	A
12	lack of provision for practical experience and hand -on practice on some societal issues and problems	3.14	0.64	A
13	Lack of fund for students' practical	2.78	0.82	A
14	Most lecturers still stick with the old materials ideas and methods of teaching	3.55	0.46	SA
15	Most lecturers lack adequate knowledge of how to handle technological equipment	3.76	0.23	SA
16	There are not enough special education specialists who can assist lecturers in the classroom	2.58	0.42	A

Table 2 indicates that items14 and 15 are rated strongly agree with mean values of 3.55 and 3.76 and with standard deviation of 0.46 and 0.23 respectively. Items 9, 10,11, 12, 13 and 16 were rated as agree with mean values ranging from 2.58 -3.44 and with standard deviation ranging from 0.39-0.93. This indicates that all the items listed on the Table were the challenges of inculcating creative problem skills to students with disabilities.

Research Question 3: What are the strategies for inculcating creative problem solving into persons with special needs through entrepreneurship education

Table 3: Mean and Standard deviation on the Strategies for Inculcating Creative Problem Solving into Persons with Special Needs Through Entrepreneurship Education N=53

S/No	Strategies for inculcating creative problem solving into persons with special needs through entrepreneurship education	X	SD	Dec
17	There should be opportunities for in-service training and internship that will enable students with special needs to acquire first hand experience	3.65	0.38	SA
18	Development of entrepreneurship education curriculum programmes that will make students learn specific and specialized skills	3.44	0.58	A
19	Collaboration and partnership among the entrepreneurs in the community, vocational training personnel in the institutions and persons with special needs	2.76	0.66	A
20	Embedding entrepreneurship education across the curriculum rather than just teaching it as a separate curriculum	2.98	0.37	A
21	A paradigm shift from just teaching entrepreneurship education theoretically to making it more activity oriented.	3.15	0.47	A
22	Provide rehabilitation centres and training workshops that are equipped with the state -of-the-art facilities	2.76	0.38	A
23	Create opportunities for practical demonstration of income generating skills that are profit oriented	3.53	0.63	SA
24	Organize capacity building programmes for lecturers to equip them with appropriate skills and knowledge	3.76	0.85	SA

Data on the Table above shows that items 17, 23 and 24 were rated as strongly agree by the respondents with mean ratings of 2.65, 3.53 and 3.76 respectively and with standard deviation of 0.38, 0.63 and 0.85 respectively. Items 18, 19, 20, 21 and 22 have mean scores of 3.44. 2.76, 2.98, 3.15 and 2.76 and with standard deviation of 0.58, 0.66, 0.37, 0.47 and 0.38 respectively. This shows that all the items on the Table were perceived by the respondents as strategies for inculcating creative problem solving to persons with special needs through entrepreneurship education.

DISCUSSION

The result of the of the study indicates that the respondents agreed that the following are necessary entrepreneurship education curriculum content needed to make students with special needs become creative problem solvers. These include the concept of creative problem solving, creative problem solving strategies, generating innovative ideas, creative problem solving practicum, social entrepreneurship, entrepreneurship and creativity, business problem solving for the entrepreneur and new venture creation. The finding is in consonance with what Thomsen, (2009) regarded as the major characteristics of entrepreneurial education which is Creativity and innovation. These entrepreneurship education curriculum content necessary to make students with special needs become creative problem solvers are considered very vital more especially for the gifted and talented students who excel in situations that offer them opportunities to apply information to solve societal problems in new and innovative ways. Entrepreneurship Education will provide them with tools to become entrepreneurial thinkers by immersing them in real life learning experiences where they can take risks, manage the results, and learn from the outcomes. These will help them to utilize their cognitive prowess in high-level innovation, creativity and problem solving in society.

The result of the study further show the challenges of inculcating creative problem solving to students with special needs. The challenges among others include lack of: developed curriculum that addresses creative problem solving, fund for students' practical, technologically-up-to-date- equipment, adequate knowledge of how to handle available technological equipment and not having enough special education specialists who can assist lecturers in the classroom. Other challenges indicated by the respondents are that most lecturers still stick to the old materials, ideas and methods of teaching as well as lack of provision for students' practical experience and hand-on practice on some societal issues and problems.

This result which indicated that there is problem with funding this could be because persons with special needs are of seen to be among the poor in society. they may not have the necessary fund to try out solutions to some societal problems. Again, though there is a problem with the provision of modern state-of-the-art equipment, the mean responses of the respondents indicate that the major problem is that even the few equipment that are provided, the lectures do not have the necessary skills to manipulate and manage some of the equipment. It also shows that some of the lecturers are unwilling to adapt to change in pedagogy. Some of them still stick to the passive method of teaching which they are conversant with. This finding contradicts the assertion by the European commission, (2011) which states that teachers are supposed to teach entrepreneurship education through. Experiential learning, project-based activities, active learning and learning that is 'co-constructed' with those beyond the school, or college

With regards to strategies for inculcating creative problem solving into persons with special needs through entrepreneurship education the respondents agreed that the students should be given opportunities for in-service training and internship so that they can acquire first hand experience, the entrepreneurs in the community, vocational training personnel in the institutions and persons with special

needs should work in partnership, entrepreneurship education should be embedded across the curriculum rather than just teaching it as a separate curriculum. There is also a need to change from just teaching entrepreneurship education theoretically to making it more activity oriented, provide rehabilitation centres and training workshops that are equipped with modern facilities and build capacity of lecturers to equip them with appropriate skills and knowledge. This finding is in line with the findings of European Commission Report (2011) which shows that teachers are central in the teaching of entrepneural skills and therefore, need to trained so that they can acquire the right skills and attitudes to be able to provide the students with new curricula, pedagogies and learning environment that will make the students develop entrepreneurial competencies,

RECOMMENDATIONS

1.Government should provide enough fund to students to try their hand on practical experiences on solving societal problems. This will also help them to relate the course of their study to society. so that they will not divorce what is learnt in the classroom from societal issues

2.Universities and government should provide resources and sponsorship for capacity building of their staff. Some of these could be done both locally and internationally. This will give the staff opportunity to learn acquire what is cutting edge and current

3. Universities need to create web-based resources and knowledge sharing platforms as well as net works for staff. So that staff can assess new teaching materials that are available globally.

4.Universities should move beyond the mere teaching of business plan to providing the students with more hands on practice on solving societal problems right from the time they are still students.

5.Entrepreneurship education curriculum should be reviewed to ensure it is relevant, dynamic and current so that the graduates can fit into the changing situation in the global economy

CONCLUSION

Teaching students with disabilities to learn and use life changing practical tools provided by Entrepreneurship Education and at the same time employing applying the steps and stages of Creative Problem learning will definitely help in improving their education beyond memorization and recall. It will equip them to compete favourably in the ever changing society where much emphasis is on creativity, innovation and productivity. Students who are well acquainted with creative problem solving will become quite useful in society because they will turn out life-long problem solvers and creators of new ideas and products and Entrepreneurship Education is just the veritable channel to do this.

REFERENCES

Alexander, K.D. (2007). Effects of Instruction in Creative Problem Solving on Cognition, Creativity, and Satisfaction among Ninth Grade Students in an Introduction to World Agricultural Science and Technology Course. Retrieved September24,2012,fromciteseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.138.5273.pdf

Backström-Widjeskog, B. (2010) Teachers' thoughts on entrepreneurship education, in Skogen, K. and Sjovoll, J.(eds), Creativity and Innovation – Preconditions for entrepreneurial education, Trondheim: Tapir Academic Press.

Bronte-Tinkew, & J. Redd, Z. (2001). Logic Models and Outcomes for Youth Entrepreneurship Programs, DC Children and Youth Investment Trust Corporation Retrieved September 26, 2012 from http://www.childtrends.org/Files/LogicModelsYouthEntrepreneurship.pdf

Charney, A. and Libecap, G. D. (2000). Impact of Entrepreneurship education insight. A Kauffman Research Series. 1-8

Creativity Education Foundation. (2012). Creative Problem Solving. Retrieved September 22, 2012 from http://www.creativitytraining.com/our-process/creative-problem-solving

European Commission Report (2011). Entrepreneurship education: enabling teachers as a critical success factor. Entrepreneurship Unit Directorate-General for Enterprise and Industry European Commission : Brussels

Ewuzie, K. (2012). Jonathan Orders Undergraduates to offer Compulsory Course in Entrepreneurship in Business Day online retrieved September 22, 2012 from http://www.businessdayonline.com/NG/index.php/news/111-politics/33295-jonathan-orders- undergraduates-to-offer-compulsory-course-in-entrepreneurship

Fasasi, Y.A. & Etejere, P.A.O. (2009). Entrepreneurship Education: A strategy for Enhancement of Graduate Employment in Nigeria. Nigerian Journal of Educational Administration and Planning. 9(2); 93-103. NAEAP. Retrieved on September 22, 2012 from http://www.unilorin.edu.ng/index.php/etejerepao

Federal Republic of Nigeria (2004). National Policy on Education. Abuja: Federal Ministry of Information.

Gallagher, J.J.(1998). Accountability for gifted students. Phi Delta kappan, 79, 739- 742

Hallahan D.D and Kauffmen, lM (2000) Exceptional Learners Introduction to Special Education. (8th Ed.) Boston: Allyn and Bacon

Heward, L. W. (2009). Exceptional Children: An Introduction to Special Education (9th ed.), Upper Saddle River, NJ: Prentice Hall/Merrill.

Jones, C & English J (2004). A contemporary approach to entrepreneurship education. Retrieved 20th November, 2012 from: cite.utas.edu.au/.../a%20contemporary%20approach%20to% 20entrepreneurship

Ifedili, C. J. & Ofoegbu, F. (2011) Managing entrepreneurship education in Nigerian universities. European Journal of Educational Studies, 3 (1) 101- 109

Nwangwu, I. O. (2007). Higher Education for Self-reliance: An Imperative for the Nigerian Economy. NEAP publication pg. 1-8.

Nworgu, B.G. (2006). Educational research: Basic issues and methodology. Ibadan: Wisdom Publishing

Thomasen, M. (2010). Entrepreneurship Education.

Retrieved 20th November, 2012 from:
Wikipedia (2012). Creative Problem Solving. Retrieved,
September 22, 2012 from
http://en.wikipedia.org/wiki/Creative_problem_solving

Nwosu, Eucharia, N. (Ph. D)
Department of Education Foundations
University of Nigeria, Nsukka