

COMPETENCIES NEEDED BY VOCATIONAL AND TECHNICAL TEACHERS TOWARDS THE DEVELOPMENT OF ENTREPRENEURIAL SKILLS IN STUDENTS

Owodunni Ayanda Samuel, Ph.D

and

Hassan Abdullahi. Muhammad

Department of Industrial and Technology Education
Federal University of Technology, Minna Niger State

Abstract

This study identified those competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students. To achieve this objective, four research questions were developed and answered while four null hypotheses were formulated and tested at 0.05 level of significance. The population for the study was 123 respondents made up of 87 male and 36 female vocational and technical education (VTE) Lecturers in Federal Capital Territory College of Education, Abuja and Niger State College of Education, Minna. A 55 items structured questionnaire was developed from the literature reviewed for the study and utilized in collecting data. Survey research design was adopted for the study. The structured questionnaire was face-validated by 5 experts in vocational and technical education and entrepreneurship education from Taiye Solarin University of Education Ijagun, Ogun State. The Cronbach alpha method was used to compute the reliability of the questionnaire to obtain a co-efficient of 0.77. Mean was used to answer the research questions, standard deviation was used to determine how close or otherwise are the responses of the respondents are to mean and to one another, while t-test statistics was used to test the hypotheses. The results showed that there are general Personality attribute and attitude, managerial and basic competencies needed by the vocational and technical teachers for developing entrepreneurial skills in students. The study further found out that there was no significant difference in the mean ratings of the responses of male and female VTE teachers competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students. It was therefore recommended that the competencies discovered in this study should be packaged and included in curriculum of VTE teacher programme and

VTE teachers should endeavor to make their college graduates job creators rather than job seekers.

Introduction

The development of entrepreneurial skills in students is important to sustaining a competitive advantage in a global economy that is catalyzed by innovation. The role of quality entrepreneurship education and training in identifying and nurturing this entrepreneurial potential among Nigerian youth and students is becoming apparent to students, policy makers, and educators. The recent introduction of entrepreneurial education into Nigeria educational system provides further evidence of the need for children and family economic empowerment and self-employment as a viable carrier for young people.

Research has theorized that the supply of entrepreneurs can be increased by developing a positive perception about the feasibility and desirability of entrepreneurship through educational preparation at an early age (Kourilsky, 1995). When rooted in solid learning theory, entrepreneurial education develops entrepreneurs, by increasing business knowledge and promoting psychological attributes associated with entrepreneurs (Kruegar & Brazeal, 1994; Kourilsky & Walstad, 1998; Walstad & Kourilsky, 1999).

Entrepreneurship education generally refers to programs that promote entrepreneurship awareness for career purposes and provide skill training for business creation and development (Vesper, 1990; Bechard & Toulouse, 1998). It is distinguishable from other forms of business education when its purpose is creating a new product or service that results in higher economic value (Hanesmark, 1998). An inherent assumption in entrepreneurial education is that entrepreneurship characteristics and skills can be developed (Rasheed, 2010). Research suggests that the propensity towards entrepreneurship has been associated with several personal characteristics that can be influenced by a formal program of education (Gorman, Hanlon, & King, 1997; Bechard & Toulouse, 1998). Education can prepare for new venture initiation by transferring knowledge and developing relevant skills that improve the self-efficacy and effectiveness of the potential entrepreneur (Gorman et al., 1997).

However, a consensus on when educational intervention is most effective in developing entrepreneurial potential has not been clearly established, but vocational education offers an educational opportunity for young people who need a choice of routes to success and personal self-

esteem. Vocational education offers students a way to find their own specialties and make the most of them. Finally, vocational educators are recognizing economic development opportunities by adding entrepreneurship education to the skills taught in many programs.

In some developed countries like England, United States of America and Japan entrepreneurship education is an important part of their school-to-work programme for all students. The programme apart from enabling students to acquire appropriate entrepreneurial skills and competencies it also helps students in their transition from education experience to employment. Gasse (1985) recommended that entrepreneurial potential should be identified and developed at the secondary school level, when the possibility of self-employment as a career option is still open. Singh (1990) concluded that traditional pedagogy should be reoriented to emphasize and value entrepreneurship in order to cultivate an enterprise culture. Kourilsky and Walstad (1998) suggested that stimulating entrepreneurial attitudes through education at the pre-collegiate level could encourage entrepreneurship as a career choice.

Many literatures have revealed that entrepreneurial education and venture creation has effects on the development of youth. It has also been established that there is learning theory associated with program content and the pedagogy of entrepreneurial development programs (Leitch & Harrison, 1999). While there is empirical evidence supporting entrepreneurial education as an intervention tool for impacting adult attitudes toward entrepreneurship (Ede, Panigrahi, & Calcich, 1998; Hansemark, 1998; Hatten & Ruhland, 1995). Finally, there is research related to youth awareness and attitudes about the social and economic desirability of entrepreneurship as a career option (Kourilsky & Walstad, 1998; Walstad & Kourilsky, 1999). Implementing such changes to school systems has required major structural changes to curricula and standards, but the key element in the success of the changes is having well-trained teachers who is competent in entrepreneurial education to deliver the new changes. The teachers also need to have subject knowledge and pedagogical knowledge to deliver the topics effectively.

A teacher as defined by the Education Act of 1964 is someone occupying a teaching position in the general education system which requires its holder to instruct students. In the opinion of Offorma (2002) it is a person that has acquired special skills required for effective imparting of knowledge and skills to a group of learners (pupils or students). Without doubt, the most important person in the curriculum implementation process is the teacher.

With their knowledge, experience and competencies, teachers are central to any curriculum improvement effort. Regardless of which philosophical belief the education system is based on, there is no denying that teachers influence students' learning. Better teachers foster better learning. Teachers are most knowledgeable about the practice of teaching and are responsible for introducing the curriculum in the classroom.

Students' motivation, learning and achievement can highly be influenced by teachers' tendency and ability to teach effectively (Bayraktar, 2011; Tschannen-Moran and Hoy, 2001). To improve students' entrepreneurial learning and competencies, therefore, they should be taught by competent teachers who have a positive attitude toward entrepreneurship and a strong sense of entrepreneurial self-efficacy. However, there is little knowledge about attitude and self-efficacy of teachers in general and technical college teachers in particular.

Entrepreneurial competency refers to the sum of the entrepreneur's requisite attributes for successful and sustainable entrepreneurship (Kiggundy, 2002). According to Kiggundy, these attributes include attitudes, values, beliefs, knowledge, skills, abilities, personality, wisdom, expertise (social, technical, and managerial), mindset, and behavioral tendencies. Cunningham and Lischeron in Umar (2012) identified six schools of thought on entrepreneurship that explain what constitutes an entrepreneur. Of the six schools, three assert that entrepreneurial traits are innate and cannot be developed or trained in the classroom. The other three schools of thought hold that entrepreneurial skills and competencies can be acquired through formal training. Hence, there is need to identify those competencies needed by the teachers to develop entrepreneurial skills in students through formal training in technical colleges.

Statement of the Problem

The high rate of unemployment among school leavers and college graduates has been attributed to lack of skills and competencies required in the world of work. Furthermore, most of these graduates do not possess entrepreneurial skills and competencies that will enable them establish and manage a small business enterprise so as to become self-employed and self-reliant on graduation. Hence, there is need for the students to acquire the necessary entrepreneurial skills that will enable them to be self-employed and manage small business while in school. The only way the students can acquire these skills and competencies is when the teachers training the

students expose them to these skills and competencies. However, it has been observed that some of these teachers may not be possessing or aware of these skills and competencies. It is against this background that this study identified those competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students.

Purpose of the Study

The purpose of this study was to identify those competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students

Specifically, the study sought to

1. Identify the General competency needed by Vocational and technical teachers for developing entrepreneurial skills in their students
2. Identify the managerial competency needed by Vocational and technical teachers for developing entrepreneurial skills in their students
3. Identify the personality attribute competency needed by Vocational and technical teachers for developing entrepreneurial skills in their students
4. Identify the basic business skill competency needed by Vocational and technical teachers for developing entrepreneurial skills in their students

Research Questions

1. What are the general competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students
2. What are the managerial competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students
3. What are the personality attribute competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students
4. What are the basic business skill competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students

Hypotheses

HO₁ There is no significant difference in the mean responses of male and female vocational and technical Lecturers on the general competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students

HO₂ There is no significant difference in the mean responses of male and female vocational and technical Lecturers on the managerial

competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students

HO₃ There is no significant difference in the mean responses of male and female vocational and technical Lecturers on the competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students

HO₄ There is no significant difference in the mean responses of male and female vocational and technical Lecturers on the competencies needed by Vocational and technical teachers for developing entrepreneurial skills in their students

Methodology

A descriptive Survey design was used for the study. The study was carried out in all the technical colleges in Federal Capital Territory (FCT), Abuja. The population consists of 123 Vocational and Technical Lecturers drawn from Federal Capital (FCT) College of Education, Abuja and Niger State college of Education Minna. The instrument used for data collection was 55 items structured questionnaires on a 4-point rating scale of highly needed (HN), Moderately Needed (MN), Needed (N) and Not Needed (NN) developed by the researcher. The questionnaire was titled competency needed by vocational and technical teacher's questionnaire. The questionnaire was divided into two sections, A and B. Section A sought information on personal data of the vocational and technical teachers. Section B sought information on competencies needed by vocational and technical teachers to develop entrepreneurial skills in students. The questionnaire was validated by five vocational and technical educators, from Taiye Solarin University of Education Ijagun, Ogun State. The comments and suggestions of the experts were incorporated in building up the final draft of the instrument. The instrument was trial-tested on 20 vocational and technical Lecturers drawn from colleges of Education that were not involved in the main study. The result was used to determine the reliability of the instrument using Cronbach Alpha techniques. A reliability index of 0.77 was estimated. This value was considered high enough, thus indicating that the instrument was adequate and reliable for the study. The questionnaires were administered to the respondents with the help of two research assistants. The questionnaires were retrieved on the spot thereby ensuring 100% return. The research questions were answered

using mean and standard deviation. A mean of 2.50 and above indicated that the respondents agreed with the items on the questionnaire while a mean of 2.49 and below indicated that the respondents disagreed with the items on the questionnaire. The null hypotheses were tested using t-test statistic at $p < 0.05$.

Results

The result of the research questions and hypotheses were presented below

Table 1

Mean Ratings and t-test Analysis of the Male and Female Lecturers on the general competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

N = 123

S/N	Item Statement		SD	t-cal	t-tab	Remarks
1.	Job/Technical competence	2.80	0.51	0.31	1.96	*NS
2.	Mental ability	2.77	0.56	0.23	1.96	*NS
3.	High achievement drive	2.69	0.51	0.73	1.96	*NS
4.	Ability to be creative	2.81	0.54	-1.01	1.96	*NS
5.	Ability to do something in a new way (be innovative)	2.77	0.61	-1.38	1.96	*NS
6.	Information/opportunity seeking	2.81	0.66	0.78	1.96	*NS
7.	Human relations skills	2.88	0.49	0.59	1.96	*NS
8.	Competitive skills	2.71	0.56	0.78	1.96	*NS
9.	Conceptual/planning skills	2.77	0.64	0.91	1.96	*NS
10.	Supervisory/Guidance skills	2.68	0.62	-1.36	1.96	*NS
11.	Investigative/problem solving skills	2.90	0.57	0.88	1.96	*NS

Key: * = Needed; NS = No significant difference; = Mean; SD = Standard Deviation; t-cal = t- calculated value; t-tab = t-table value; N = number of respondents

The data presented in table 1 revealed that all the items had their mean values ranged from 2.68 to 2.90. This showed that the means were above the cut-off point of 2.50 indicating that the respondents agreed to the 11 items as general competencies needed by vocational and technical teachers for

developing entrepreneurial skills in students. The table also revealed that the standard deviation (SD) of the items ranged from 0.49 to 0.66 which was below 1.96. This indicated that the respondents were not too far from the mean and from one another in their responses. This also indicated that the items were valid. In addition, all the 11 items had their t-calculated values less than their t-table values. Thus, indicating that there was no significant difference in the mean ratings of the responses of male and female lecturers on the general competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

Table 2

Mean Ratings and t-test Analysis of the Male and Female Lecturers on the Managerial competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

N = 123

S/N	Item Statement		SD	t-cal	t-tab	Remarks
1	Ability to set goal	2.71	0.71	0.87	1.96	*NS
2	Communicate effectively using oral and written skills	3.10	1.11	1.32	1.96	*NS
3	Control, direct and delegate authority	3.02	1.06	0.45	1.96	*NS
4	Organize human and material resources for goal attainment	3.10	0.97	-0.64	1.96	*NS
5	Manage human and material resources for goal attainment	2.87	0.85	1.20	1.96	*NS
6	Keep appropriate records/inventories	3.06	1.12	0.46	1.96	*NS
7	Evaluate all activities/operations in the process of goal attainment	3.09	0.68	1.11	1.96	*NS
8	Evaluate personal skills, knowledge and abilities	3.64	0.91	-1.31	1.96	*NS
9	Plan, organize and follow through	3.01	0.82	0.67	1.96	*NS

10	Make appropriate use of result	2.81	0.57	0.91	1.96	*NS
11.	Appraise students performance	3,16	0.59	0.71	1.96	*NS
12.	Acquisition of management and supervisory skills	3.04	0.87	0.65	1.96	*NS

Key: * = Needed; NS =No significant difference; = Mean; SD = Standard Deviation; t-cal = t-calculated value; t-tab = t-table value; N = number of respondents

Table 2 revealed that all the items had their mean values ranged from 2.71 to 3.10. This showed that the means were above the cut-off point of 2.50 indicating that the respondents agreed to the 12 items as managerial competencies needed by vocational and technical teachers for developing entrepreneurial skills in students. The table also revealed that the standard deviation (SD) of the items ranged from 0.57 to 1.12 which was below 1.96. This indicated that the respondents were not too far from the mean and from one another in their responses. This also indicated that the items were valid. Furthermore, all the 12 items had their t-calculated values less than their t-table values. Thus, indicating that there was no significant difference in the mean ratings of the responses of male and female lecturers on the managerial competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

Table 3

Mean Ratings and t-test Analysis of the Male and Female Lecturers on the personality attributes and Attitude competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

N = 123

Item	Statement	Mean	SD	t-cal	t-tab	Remarks
1.	Persistence	3.28	0.78	1.72	1.96	*NS
2.	Self confidence	3.16	0.76	1.37	1.96	*NS
3.	Persuasiveness	3.20	0.73	0.84	1.96	*NS
4.	Human relation	3.20	0.66	1.16	1.96	*NS
5.	Creativity	3.18	0.79	-0.34	1.96	*NS
6	Teacher work habit	2.61	0.61	0.96	1.96	*NS

7.	Teacher's ability to accept success or failure of one's work	2.98	0.96	0.21	1.96	*NS
8.	Result/goal oriented	3.06	0.90	-1.10	1.96	*NS
9	Demand for efficiency and quality	3.00	0.81	0.08	1.96	*NS
10	Is Goal Oriented	2.74	1.00	0.75	1.96	*NS
11	Maintains High Self-Esteem	3.12	0.70	1.23	1.96	*NS
12	Has a Positive Outlook on Life	3.22	0.57	0.77	1.96	*NS
13	Is Self-Confident	3.11	0.62	0.14	1.96	*NS
14	Sustain Self-Awareness	3.21	0.79	0.19	1.96	*NS
15	Sustains Self Actualization	2.75	0.76	0.83	1.96	*NS
16	Possess a High Level of Energy	3.12	0.94	0.33	1.96	*NS
17	Wants to Learn	2.71	0.48	0.85	1.96	*NS
18	Can Do Attitude	2.91	0.89	0.07	1.96	*NS
19	Maintains Self-Efficacy	2.89	0.98	0.23	1.96	*NS
20.	Is Charismatic	3.19	0.90	0.21	1.96	*NS
21	Is Goal Oriented	3.20	0.93	0.56	1.96	*NS
22	Knowledge of good relationship	2.94	0.65	0.67	1.96	*NS
23	Always Wants to Success	3.11	0.70	1.18	1.96	*NS

Key: * = Needed; NS = No significant difference; \bar{x} = Mean; SD = Standard Deviation; t-cal = t-calculated value; t-tab = t-table value; N = number of respondents

The data presented in table 3 revealed that all the items had their mean values ranged from 2.61 to 3.28. This showed that the means were above the cut-off point of 2.50 indicating that the respondents agreed to the 23 items as personality attributes and attitude competencies needed by vocational and technical teachers for developing entrepreneurial skills in students. The table also revealed that the standard deviation (SD) of the items ranged from 0.48 to 1.00 which was below 1.96. This indicated that the respondents were not too far from the mean and from one another in their responses. This also indicated that the items were valid. In addition, all the 23 items had their t-calculated values less than their t-table values. Thus, indicating that there was no significant difference in the mean ratings of the responses of male and female lecturers on the personality attributes and attitude competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

Table 4
Mean Ratings and t-test Analysis of the Male and Female Lecturers on the basic business skills competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

N = 123

S/N	Item Statement	Mean	SD	t-cal	t-tab	Remarks
1.	Can Meet Deadlines	3.13	0.93	0.86	1.96	*NS
2.	Is Committed to the Business	3.14	0.81	0.17	1.96	*NS
3.	Can Manage Money	3.05	0.68	-1.30	1.96	*NS
4.	Is Aware of Health and Safety Regulations	3.06	0.78	0.64	1.96	*NS
5.	Have vision for business	2.98	0.81	0.45	1.96	*NS
6.	Risk taking	2.86	0.76	0.56	1.96	*NS
7.	Reacts Quickly to Correct Negative Situations	2.86	0.80	0.08	1.96	*NS
8.	Understands What Processes Add Value	3.33	0.68	0.06	1.96	*NS
9.	Demonstrates Good Supervisory Skills	2.80	0.81	1.69	1.96	*NS

Key: * = Needed; NS = No significant difference; = Mean; SD = Standard Deviation; t-cal = t-calculated value; t-tab = t-table value; N = number of respondents

The data presented in table 3 revealed that all the 9 items had their mean values ranged from 2.80 to 3.33. This showed that the means were above the cut-off point of 2.50 indicating that the respondents agreed to the 9 items as basic business skills competencies needed by vocational and technical teachers for developing entrepreneurial skills in students. The table also revealed that the standard deviation (SD) of the items ranged from 0.68 to 0.93 which was below 1.96. This indicated that the respondents were not too far from the mean and from one another in their responses. This also indicated that the items were valid. In addition, all the 9 items had their t-calculated values less than their t-table values. Thus, indicating that there was no significant difference in the mean ratings of the responses of male and female lecturers on the basic business skills competencies needed by vocational and technical teachers for developing entrepreneurial skills in students.

Discussion

The findings of this study indicated that job/technical competencies, mental ability, ability to be creative, human relation skills and among others identified in table 1 are general competencies be needed by the vocational and technical teachers for developing entrepreneurial skills in students were accepted by the teachers as being needed for this development. This finding is in consonance with that of Leghara and Mbah (2009) who identified job/technical competencies, mental ability, and ability to be creative as general competencies/skills needed by science, technology and mathematics teachers towards the development of entrepreneurial skills in students.

Some of the managerial competencies that will be needed to VTE teachers for developing entrepreneurial skills in students were also identified in table 2. Some of these among others were ability to: set goals, communicate effectively using oral and written skills, control, direct and delegate authority, organize human and material resources, plan, organize and follow through and make appropriate use of results. This was in line with Steinhoff and Burgess (1993) who maintained that entrepreneur must have a vision for the business, be willing to take risks and be able to plan, organize and follow through. Also Anyakoha (1993) identified thirty-two entrepreneurship skills such as creativity, self confidence, risk taking, result/goal oriented, ability to set goal, planning, among others and organized them into sixteen personality skills and sixteen management related skills.

The study also revealed that some personal attributes and attitudes are needed by vocational and technical teachers for developing entrepreneurial skills in students as indicated in table 3. This was in agreement with Hodgetts (1982) who identified the attributes needed by entrepreneurs as: technical competence, mental ability, human relation skills, high achievement drive and creativity. Fanslow and Compton cited in Iloje and Anyanwu (1991) also identified characteristics that are common to most successful entrepreneurs as: ability to take reasonable risks, self-confidence, hard work, as well as ability to set goals, accept the success and failure of one's work and to be innovative. The result is also in agreement with the findings of Leghara and Mbah (2009) that identified personal attributes and attitudes of as part of competencies needed by the Science Mathematic and Technology teachers towards development of entrepreneurial skills in students.

The study also revealed in table 4 that some basic business skills such as ability to meet deadlines, commitment to the business, management of money, awareness of health and safety regulations, have vision for business,

ability to react quickly to correct negative situations, risk taking and ability to understand to know what processes add value are needed by vocational and technical teachers for developing entrepreneurial skills in students. This is in consonance with the opinion of Anyakoha (1997) who stated that the entrepreneur must possess some basic business skills such as money management, have vision for business and risk taking in order to effectively manage their business. Therefore, the VTE teachers who were the supposed entrepreneurs must possess these basic business skills so as to be able to develop them in the students.

Lastly, the study revealed that there was no significant difference between the mean response of male and female Teachers on the competencies needed by vocational and technical teachers for developing entrepreneurial skills in students. All these competencies identified have implications for VTE teachers for developing entrepreneurial skills in students.

Conclusion

There is the need for a well-planned and implemented entrepreneurship education programme in schools and colleges. A well-planned education should consist of programmes and policies that will enable smooth acquisition of requisite skills, attitudes, knowledge, behavior and all the values that are indispensable for survival of any successful entrepreneurship. Students should be aware of the abilities, behavior and skills required to compete within different employability contexts. The study revealed that competencies possessed and needed are very important both in Nigeria and globally to realize the effectiveness of inclusion, teaching and learning of students. Training and training of VTE teachers is necessary so that students will possess entrepreneurial competencies and skills that will enable them to be gainful employed or served as employer of labour. The students will not only have diversified knowledge in these skills but will equally use these skills learned or gained to establish themselves and train others.

Recommendations

1. If education is to meet the challenges of preparing youths and the adults for self employment and self reliance, then there is need to adequately infuse entrepreneurship education into all levels of schooling.
2. All the competencies discovered in this study should be packaged and included in curriculum of VTE programme. This will enrich their entrepreneurial knowledge.

3. Teachers should receive regular training programs, short training courses and occasional workshops are not enough for teachers. More attention should be put on strengthening teachers' awareness of the importance of entrepreneurial skills and competencies that are needed for job creation.
4. The VTE teachers should endeavor to make their college graduates job creators rather than job seekers. This will uplift the socio-economic standard of our country and the college graduates will also derive pleasure in having a private business of their own and be self-reliant, self-fulfilled and self-actualized.

References

- Anyakoha, E. U. (1993). Towards enhancing the entrepreneurial skills of Home economics related business: Implication for entrepreneurship education. Paper presented at the National conference of Vocational Technical Education held at the Federal College of Education (T), Umunze from 20th-23rd April 1993.
- Anyakoha, E. U. (1993). Entrepreneurship and Vocational technical education: a contemporary challenges and the way forward. A paper published in entrepreneurship practices in education (ed). Dr N.P.M, Esomomu, published by research and publication unit FCE (T). Umunze, Anambra State.
- Bechard, J.P. & Toulouse, J.M. (1998). Validation of a didactic model for the analysis of training objectives in entrepreneurship. *Journal of Business Venturing*, 13(4), 317-332.
- Ede, F.O., Panigrahi, B, & Calcich, S.E. (1998). African American students' attitudes toward entrepreneurship education. *Journal of Education for Business*, 73(5), 291-296.
- Gasse, Y. (1985). A strategy for the promotion and identification of potential entrepreneurs at thesecondary level. *Frontiers in Entrepreneurship Research*, 538-554.
- Gorman, G., Hanlon, D., & King, W. (1997). Some research perspectives on entrepreneurship education, enterprise education and education for small business management: a ten-year literature review. *International Small Business Journal*. 15(3), 56-79.

- Hansemark, O. (1998). The effects of an entrepreneurship programme on need for achievement and locus of control of reinforcement. *International Journal of Entrepreneurship Behaviour and Research*, 4(1), 28-50.
- Hatten, T. & Ruhland (1995). Student attitudes toward entrepreneurship as affected by participation in an SBI program. *Journal of Education for Business*, 7(4), 224-227.
- Igbo, C.A. (1998). Entrepreneurship Competencies needed by rural women in Home Economics related business: implication for rural development. In Essential of entrepreneurship education in technology, science and art (ed). Dr N.P.M, Esomomu, published by research and publication unit FCE (T). Umunze, Anambra State.
- Iloje, I. C and Anyanwu, G.A. (1991). Entrepreneurship and vocational home Economics education in Nigeria. Paper presented at the 6th Annual conference of NVA on VTE and manpower development held in FCE (T) Umunze, October 2nd-5th.
- Kourilsky, M.L. (1980). Predictors of entrepreneurship in a simulated economy. *The Journal of Creative Behavior*, 14(3), 175-199.
- Kourilsky, M.L., & Walstad, W. B. (1998). Entrepreneurship and female youth: Knowledge, attitudes, gender differences, and educational practices. *Journal of Business Venturing*, 13(1), 77-88.
- Krueger, N. & Brazeal, D. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory & Practice*, 19(2), 91-104.
- Leghara, N. L. & Mbah, C. N. (2009). Competencies/Skills needed by STM Teachers towards the development of entrepreneurial skills in students. Proceedings of Science Teachers Association of Nigeria. 50th Annual Conference, 2009
- Leitch, C. & Harrison, R. (1999). A process model for entrepreneurship education and development. *International Journal of Entrepreneurial Behavior & Research*, 5(3), 83-109.

Mohammed, J. U. (2012), entrepreneurial competencies required by Automobile technology students for establishing small and medium scale enterprises in Niger State. *Unpublished M.Ed thesis*, University of Nigeria, Nsukka

Ogbonaya, (1997). Identifying the skills for entrepreneurship education in VTE. In entrepreneurship practices in education (ed). Dr N.P.M, Esomomu, published by research and publication unit FCE (T). Umuze, Anambra State.

Offorma, G. C. (2002). Curriculum theory and planning. Enugu: Family Circle Publishers.

Rasheed, H. S. (2010). Developing Entrepreneurial Characteristics in Youth: The Effects of Education and Enterprise Experience. *International Journal of Entrepreneurship Education*. Vol. 1(2) 4-23

Singh, J.B. (1990). Entrepreneurship education as a catalyst of development in the third world, *Journal of Small Business and Entrepreneurship*, 7(4), 56-63.

Stcinhoff, D. and Bugress I. F. (1993). Snull Business Management Fundamentals 6th Ed. New York: McGraw Hill Inc.

Vesper, K.H. (1990) New Venture Strategies, Prentice-Hall: Englewood Cliffs, N.J.

Walstad, W. & Kourilsy, M.L. (1998), Entrepreneurial Attitudes and knowledge of black youth. *Entrepreneurship Theory & Practice*, 23(2), 5-18.