



Original Research Report

Enhancing Entrepreneurial Skills in Foods and Nutrition through Creativity and Critical Thinking among Tertiary Institution Students in Lagos State, Nigeria

Atinuke Titilola Lano–Maduagu¹ , Kemi Priscillia Ogbonna^{2*} 

¹Department of Technology and Vocational Education, University of Lagos, Akoka, Lagos State, Nigeria

²Department of Home Economics and Hospitality Management Education, University of Nigeria, 41001 Nsukka, Enugu State, Nigeria

***Correspondence:** Kemi Priscillia Ogbonna, Home Economics and Hospitality Management Education, University of Nigeria, 41001 Nsukka, Enugu State, Nigeria (Email: kemmious50@gmail.com)

Abstract: The research focused on how university students in Lagos State may improve their entrepreneurship abilities through creativity and critical thinking. Survey research design was used. The study's population was 114, which included 14 Home Economics teachers teaching Food and Nutrition courses, 40 Senior Staff of Nigeria's Small and Medium Enterprise Development Agency, and 60 Home Economics students. There was no sampling since the population was small. For data gathering, a questionnaire was employed. The data were examined using mean and standard deviation. Findings revealed that in-service training for lecturers, proper integration of practical with theory in teaching foods and nutrition, and curriculum review in foods and nutrition programs to instil entrepreneurial skills that will meet the needs of students, among others. The difficulties in acquiring entrepreneurial skills via creative and critical learning included the fact that most higher institutions do not have foods and nutrition laboratories, and there are few vocational foods and nutrition specialists. Findings also revealed that arousing attention and retention among university students by presenting learning objectives through qualified lecturers, facilitating students' awareness of the expected learning outcomes, and providing learners feedback on exercises and activities carried out in the food laboratories are ways of reducing challenges to enhancing entrepreneurial skills through creativity and critical thinking. The recommendation includes that there should be regular training and re-training programs for Food and Nutrition teachers in the form of seminars and workshops.

Keywords: Creativity, Critical Thinking, Enhancing, Entrepreneurial Skills, Foods and Nutrition

1. Introduction

Entrepreneurship is the practice of discovering unmet needs in the market place and developing innovative solutions that can be sold for a profit. Human time, effort, and financial resources are required for this process of translating an innovation or identified opportunity into new and different things for transactional trade. Consequently, entrepreneurship is the process by which an idea is developed into a commercially viable product or service (Ikhtiar-Alam, 2021). Creativity, new ideas, and the expansion of existing businesses are all fostered by an entrepreneurial mindset. Economic difficulties have been experienced in recent years which had led to increased poverty, a decline in job opportunities, and a decrease in the standard of living in Nigeria. Entrepreneurs utilize personal qualities, critical thinking, business management and technical expertise in order to come up with novel approaches in creating a product or service.

Creativity can be defined as the fundamental source of inventiveness that can lead to the launch new businesses and the enhancement of existing company goods in order to increase efficacy and competitiveness in the market place (Ngwakwe, 2020). Goto, Makina and Ando (2023) noted that creativity is based on intrinsic values and goals. Entrepreneurs in the food and nutrition industries must be creative thinkers in order to keep up with the ever-changing landscape of the food industry and provide consumers with products that meet their needs while also satisfying consumer preferences. Entrepreneurs that can think outside the box will have a better chance of succeeding. What sets one brand apart from the other is inventing new ways to differentiate one's goods, services, and products from the competitors. It is essential for every business owner who takes a realistic and analytical view of the marketplace.

Critical thinking entails systematically collecting and analyzing data to choose the best course of action. According to Abdulahi (2021), critical thinking is one of the most important types of thinking that helps the individual to access, correct information, critique it as a result of exposure to knowledge. This competency aids the entrepreneur in more than just collecting and remembering data; it also aids in conceptualizing, studying, coordinating, and evaluating data for the purpose of decision making. All creative entrepreneurs, at their core, engage in decision making that begins with critical thinking. A successful food and nutrition entrepreneur uses this ability to generate new ideas and solutions in order to avoid missing a chance. The food and nutrition entrepreneur starts to solve the issue by creating new approaches to old problems.



Food and nutrition is one of the major courses taught in Home Economics (HE) Education in Nigeria Universities. Home Economics focuses on how individuals, households, and communities shape and are shaped by their environments. According to Abiamuwe et al. (2016), the study of home economics helps students meet their domestic responsibilities and prepares them for homemaking or professional careers. Consumer science, early childhood education, family economics, human development, interior design, textiles and food and nutrition are just a few of the many subjects covered in Home Economics. Anyakoha (2015) noted that self-sufficiency is the ultimate goal of Home Economics. Curriculum in Home Economics is designed to provide students with marketable skills and takes an integrated approach that addresses the inter connectedness of food, health, family, resources, and the home in both real-world and theoretical settings (Adeladu & Adu, 2015). Home Economics allows for the use of methodologies that can help students develop skills such as problem-solving, information-gathering, critical-thinking, exploring options, resource management, assertive communication, decision-making, and result evaluation. This implies that the method of teaching HE helps to impact creativity and critical thinking to learners.

Home Economics learners through the various food and nutrition courses taught at University level are equipped with the skills needed for successful entrepreneurship. Being a practical based subject, learners acquire the requisite skills, knowledge and attitudes needed for entrepreneurship. In the area of study, there is over population accompanied with high rate of unemployment. Home Economics students therefore, need varying entrepreneurial skills that would enable them start up different small scale businesses at graduation. This study therefore determined the strategies for enhancing entrepreneurial skills in foods and nutrition through creativity and critical thinking among University students in Lagos State, Nigeria

1.1. Statement of Problem

Globally, there is high rate of unemployment and specifically in Nigeria, Africa's most populous country. This situation has led to increased poverty and decrease in the standard of living in Nigeria. Some unemployed Nigerians have the initiative to launch new businesses, but they lack the knowledge, resources, drive, and encouragement they need to be successful. New business development has been stunted by factors such as corruption, economic instability, a dearth of necessary infrastructure, inexperienced management and inadequate entrepreneurial competencies. Igwe et al. (2014) noted that in the face of rapid social and technological change, slow economic

recovery and joblessness, many countries have shifted the focus of their policies from efficiency gains in existing enterprises to facilitating new firm creation. The authors further noted that entrepreneurship skills equip students with relevant knowledge, attitudes and skills needed for starting and running businesses successfully.

Creativity, new ideas, and the expansion of existing businesses are all fostered by an entrepreneurial mindset. By implication, unemployment can be greatly reduced when people possess the needed entrepreneurial skills for successfully owning a business. Several studies reviewed strategies for enhancing entrepreneurial skills in foods and nutrition in various areas, but none focused on enhancing entrepreneurial skills in foods and nutrition through creativity and critical thinking among University students in Lagos State, Nigeria. This is the gap in literature filled by the study.

1.2. Purpose of the Study

The main objective of the study was to determine the strategies for Enhancing Entrepreneurial Skills in Foods and Nutrition through Creativity and Critical Thinking among University Students in Lagos State. Specifically the study determined:

- (a) Ways of enhancing Entrepreneurial Skills in Foods and Nutrition among University Students in Lagos State.
- (b) Ways of enhancing Creativity and Critical Thinking among University Students in Lagos State.
- (c) Challenges to enhancing Entrepreneurial Skills in Foods and Nutrition among University Students in Lagos State.
- (d) Ways of reducing challenges to enhancing Entrepreneurial Skills in Foods and Nutrition among University Students in Lagos State.

1.3. Research Questions

The following research questions guided the study

- (a) What are the ways of enhancing Entrepreneurial Skills in Foods and Nutrition amongst University Students in Lagos State?
- (b) What are the ways of enhancing Creativity and Critical Thinking amongst University Students in Lagos State?
- (c) What are the challenges of enhancing Entrepreneurial Skills in Foods and Nutrition amongst University Students in Lagos State?

- (d) What are the ways of reducing challenges to enhancing Entrepreneurial Skills in Foods and Nutrition amongst University Students in Lagos State?

2. Materials and Methods

2.1. Design for the Study

The study adopted a descriptive survey design. This was chosen because the study sought to collect data on the perception of a given population in a systematic way such that the findings are expected to be generalized to the entire population (Nworgu, 2006).

2.1.1. Ethics Statement

The ethics approval of the study was done by the Department of Technology and Vocational Education, University of Lagos, Akoka, Nigeria as ethic of privacy and confidentiality of Home Economics lecturers, Senior Staff of Small and Medium Enterprises Development Agency of Nigeria as well as Home Economics Students was ensured in accordance with Home Economics Research Association of Nigerian (HERAN) research ethics. The participants gave their informed consent orally before completing the survey.

2.2. Area of the Study

The research was conducted in Lagos State, Nigeria. Lagos State was selected as the urban area having the most tertiary institutions in Nigeria. Lagos State is located in Nigeria's south-western region. Lagos state is the second most populated and possibly the most economically vital state in the country, with the nation's biggest metropolitan area.

2.3. Population and Sample

The research was conducted in Lagos State, Nigeria. The population for the study was one hundred and fourteen (115) individuals. This consisted of forty (40) Senior Staff of Small and Medium Enterprises Development Agency of Nigeria (Source: Human Resource Office of SMEDAN 2022); sixty (60) Home Economics Students (Source: Admission Office 2020/21); and fourteen (14) Home Economics lecturers teaching Food and Nutrition comprising of three (3) from University of Lagos, two (2) from Yaba College of Technology, in affiliation with University of Nigeria, Nsukka, six (6) from Lagos State University of Education, Ijaniki and three (3) from Lagos State University of Education, Epe, (Source: Registry). There was no sampling since the population was a manageable size. Hence, the entire population of one hundred and fourteen (114) staff was used for

the study.

2.4. Instrument for Data Collection and Study Procedure

Questionnaire titled Strategies for Enhancing Entrepreneurial Skills in Foods and Nutrition through Creativity and Critical Thinking amongst University Students (SEESFNCCTUS) with 45 items was constructed for the study. It had two sections (A and B); Section A was focused on demographic data while B was made up of three clusters designed to sought information on each of the four (4) research questions. The instrument adopted a four point rating scale with response categories of; strongly disagree (1.00-1.49), disagree (1.50-2.49), agree (2.50-3.49) and strongly agree (3.50-4.00). Hence, any item with mean score below 2.50 was rejected because it was adjusted to below criterion level of acceptance.

2.4.1. Validation of the Instrument

The questionnaire was face validated by four experts: two Home Economics lecturers and two registered entrepreneurs in Lagos State.

2.4.2 Reliability of the Instrument

The reliability of the instrument was ensured using Cronbach's Alpha Reliability Method and 0.81 internal consistency was achieved which showed that the instrument was reliable.

2.5. Data Collection Technique

All the administered questionnaires were returned by the help of the researcher and the two research assistants. The returned questionnaires were used for data analysis.

2.6. Data Analysis Technique

The data collected were analyzed with mean and standard deviation using Statistical Package for Social Science (SPSS) version 25.

3. Results and Discussion

3.1. Research question one: What are the ways of enhancing Entrepreneurial Skills in Foods and Nutrition amongst University Students in Lagos State?

Table 1: Mean and standard deviation responses on the ways of enhancing entrepreneurial skills in foods and nutrition amongst university students in Lagos State.

No	Ways of enhancing entrepreneurial skill in foods and nutrition	Mean	SD	Remark
1	In-service training for teachers	3.06	0.92	Agreed
2	Proper integration of practical with theory in teaching foods and nutrition	3.52	0.81	Agreed
3	Curriculum review in foods and nutrition programs to infuse entrepreneurial skills that will meet the needs of students	2.57	0.78	Agreed
4	Employing professional lecturers who will develop a vision of how students will benefit entrepreneurial courses	3.03	0.88	Agreed
5	Proper planning and provision of needed adequate tools and in Food and nutrition laboratories	2.41	0.92	Disagreed
6	Putting in place procedures for measuring the growth of each individual lecturer and student.	3.12	1.01	Agreed
7	Setting technological targets and introduction of professional development plans for lecturers	3.59	0.98	Agreed
8	Making result driven evaluation that will help students to appreciate entrepreneurial and creative skills	2.50	0.83	Agreed

Table 1 displayed the mean and standard deviation responses on approaches to improve entrepreneurial abilities in foods and nutrition via creativity and critical thinking. All except one of the replies were agreed upon based on the study, with mean values ranging from 2.57 to 3.59, which are more than the cutoff criterion of 2.50. However, respondents were divided on whether proper planning and provision of adequate tools in food and nutrition laboratories are required to improve entrepreneurial skills (Mean=2.41). The standard deviation, on the other hand, ranged from 0.78 to 1.01, indicating that the mean responses are near to each other.

3.2. Research question two: What are the ways of enhancing creativity and critical thinking amongst university students in Lagos State?

Table 2: Mean and standard deviation responses on ways of enhancing creative and critical thinking amongst university students in Lagos State

No	Ways of enhancing critical thinking skills	Mean	SD	Remark
9	Stimulating students ability of student to predict outcome	2.65	0.88	Agreed



10	Stimulating students ability of student to recognize critical concept	2.84	0.70	Agreed
11	Helping students to see relationship between concepts	3.00	0.99	Agreed
12	Stimulating students ability to evaluate outcomes	3.08	0.72	Agreed
13	Assisting students to make intelligent guesses	3.00	0.99	Agreed
14	Encouraging students to assess themselves and make constructive criticisms	2.71	0.83	Agreed
15	Assisting students to think through problematic situations	2.90	0.93	Agreed
16	Assisting students to understand and interpret questions	3.04	0.77	Agreed
17	Stimulating students ability to be initiative	2.86	0.98	Agreed
18	Discouraging students not to judge ideas very early	2.93	0.70	Agreed
19	Encouraging students to develop positive sense of judgment	3.00	0.84	Agreed
20	Encouraging more of reflective practical skill learning	2.61	0.90	Agreed
21	Use of frequent questioning while teaching encourages students to transfer and apply knowledge acquired to diverse areas.	3.98	1.02	Agreed

The analysis in Table 2 revealed that all thirteen itemized creative and critical thinking skills needed for students' creativity had mean values ranging from 2.61 to 3.98, which were greater than the cut off points of 2.50, indicating that all of the items were accepted as creative and critical thinking skills needed by students in foods and nutrition. The table also showed that the standard deviation (SD) of the items was within the range of 0.70 to 1.02 indicating that the mean value of the respondents' replies were not far off.

3.3. Research question three: What are the challenges of enhancing Entrepreneurial Skills in Foods and Nutrition through Creativity and Critical Thinking amongst University Students in Lagos State?

Table 3: Mean and standard deviation responses on the challenges of enhancing entrepreneurial skills in foods and nutrition through creativity and critical thinking



No	Challenges of enhancing entrepreneurial skill in foods and Nutrition	Mean	SD	Remark
22	Most tertiary institutions do not have foods and nutrition laboratory.	3.58	0.85	Agreed
23	Vocational foods and nutrition experts are few	3.98	0.93	Agreed
24	Any home economics teacher is allowed to teach foods and nutrition	1.06	0.96	Disagree
25	Inadequate tools and equipment to meet with number of students during practical classes	3.90	0.75	Agreed
26	Inadequate supervision of students practical works by lecturers due to large class size	2.53	0.69	Agreed
27	Poor cleaning environment that do not promote creative thinking	2.51	0.72	Agreed
28	Inadequate funding of schools by government	3.80	0.72	Agreed
29	Inadequate time allocated on the time table for practical classes Inadequate motivation of students through exhibition of foods,	2.57	0.82	Agreed
30	pastry and dough products produced Lack of encouragement on the part of low skilled lecturers in	3.04	0.89	Agreed
31	form of in-service training	0.68	0.70	Agreed

The analysis in table 3 revealed that all but one of the ten items are barriers to enhancing entrepreneurial skill in foods and nutrition through creative and critical thinking among tertiary institution students, with mean values ranging from 2.51 to 3.98, which was higher than the cut-off point of 2.50. However, respondents (mean of 1.06) rejected the response that any Home Economics teacher can teach foods and nutrition. The table also revealed that the standard deviation (SD) of the items is within the range of 0.75- 0.96, indicating that the respondents' values were not far off in their replies.

3.3. Research question four: What are the ways of reducing challenges to enhancing Entrepreneurial Skills in Foods and Nutrition through Creativity and Critical Thinking amongst University Students in Lagos State?

Table 4: Mean and standard deviation responses on ways of reducing challenges to enhancing entrepreneurial skills in foods and nutrition through creative and critical thinking amongst university students in Lagos State. Page | 65

No	Ways of Reducing Challenges to enhancing Entrepreneurial skills In foods and Nutrition	Mean	SD	Remark
32	Arousing attention and retention by presenting learning objectives through qualified lecturers	3.83	1.00	Agreed
33	Facilitating students awareness on the expected learning outcomes and practical	3.70	0.92	Agreed
34	Giving learners feedback on exercises and activities carried out in the food laboratory	3.26	1.01	Agreed
35	Helping students to link up previous learning objectives with current Materials to be learned	2.65	0.88	Agreed
36	Guiding, structuring and offering adequate guidance for practicals	3.07	0.77	Agreed
37	Making sure instructional materials match with age and reasoning of the student	2.69	0.88	Agreed
38	Promoting of personal relationship between the learners and lecturers through well-developed communication tools	2.88	0.96	Agreed
39	Helping learners find their way in and around the subject matter by repeating sections where appropriate	3.50	0.73	Agreed
40	Telling students what they need to do in order to be able to tackle the instructional materials in principles and practices	2.74	1.01	Agreed
41	Providing clear instructions on what students should be able to do on completion of the material in terms of objectives and practical	3.97	1.00	Agreed
42	Advising students on how to tackle the work (e.g. how much time to allow on different sections, how to plan for an assignment, and	3.85	0.83	Agreed



	practical class project etc				
43	Explaining the subject matter in such a way that learners can relate it to what they already know	2.58	0.72	Agreed	
44	Engage them in exercises and activities that cause them to work with the Creative thinking and practical skills rather than merely reading about it	3.42	0.89	Agreed	Page 66
45	Giving students the liberty to judge for themselves whether they are learning successfully through what they have been able to produce	3.94	0.81	Agreed	

The mean and standard deviation replies of solutions to reduce difficulties to increasing Entrepreneurial Skills in Foods and Nutrition are shown in Table 4. Through tertiary institution students' inventiveness and critical thinking in Lagos State All of the highlighted elements were agreed upon with mean values ranging from 2.58 to 3.97, which is greater than the cutoff limit of 2.50. The standard deviation responses, on the other hand, varied from 0.72 to 1.01, implying that the mean responses are within a narrow range.

Firstly, the results in Table 1 indicated that the ways of enhancing entrepreneurial skills in foods and Nutrition included In-service training for teachers, proper integration of practical with theory in teaching foods and nutrition, curriculum review in foods and nutrition programs to infuse entrepreneurial skills that will meet the needs of students, employing professional lecturers who will develop a vision of how students will benefit in entrepreneurship courses, proper planning and provision of needed adequate tools and in Food and nutrition laboratories putting in place procedures for measuring the growth of each individual lecturers and students, setting technological targets and introduction of professional development plans for lecturers, making result driven evaluation that will help students to appreciate entrepreneurial and creative skills and this is in line with the assertion of Battal and Azharsyah (2023) who stated that teachers should provide learners with the opportunity to collaborate, share, and create information which will help enhance the learner's use of various technologies as well as enhance their learning experience.

Secondly, the results in Table 2 shows that encouraging students to make educated guesses, helping them recognize important concepts, pointing out connections between ideas, stimulating their ability to evaluate outcomes, and encouraging them to assess themselves and make decisions



are all effective ways to boost creative and critical thinking among college students in Lagos State. In line with the findings, Abdulahi (2021) noted that critical thinking is one of the most important types of thinking that helps the individual to access, correct information, critique it as a result of exposure to knowledge. Furthermore, Verganti (2017) opined that creativity and critical thinking can be generated from a novel vision stemming from unique values and goals. Page | 67

Thirdly, results in Table 3 shows some obstacles to developing food and nutrition entrepreneurship skills through innovative and critical thinking. Most universities lack a food and nutrition laboratory, vocational food and nutrition experts are scarce, any home economics teacher can teach food and nutrition, and there aren't enough supplies to go around during practical classes to keep up with the number of students. Furthermore, lectures often don't provide enough oversight of students' practical work, which can lead to sloppy results. . In line with these findings, Okolie and Ogbaekirigwe (2014) reported that many schools offering vocational education and training programmes in Nigeria do not have enough laboratories or workshops space, let alone, usable equipment and facilities and where they exist, they are grossly inadequate as the laboratories only have the equipment that were provided when the institutions were established. Furthermore, Nwajiofor and Achukwu (2011) noted that most schools do not adequately maintain the intranet facilities they have adopted due to the high cost of running them, especially in the absence of adequate power supply and competent manpower, which can put at risk the efforts of instructors whenever they need to use the power supply during practical sessions.

Lastly, the analysis in Table 4 showed that the ways of reducing challenges to enhancing Entrepreneurial Skills in Foods and Nutrition through creativity and critical thinking are arousing attention and retention by presenting learning objectives through qualified lecturers, facilitating students awareness on the expected learning outcomes and practical classes, giving learners feedback on exercises and activities carried out in the food laboratory, helping students to link up previous learning objectives with current materials to be learned, guiding and structuring practical processes, promoting of personal relationship between the learners and lecturers through well-developed communication tools, making sure instructional materials match with age and reasoning of the student, helping learners find their way in and around the subject matter by repeating sections where appropriate, telling students what they need to do in other to be able to tackle the instructional materials in principles and practices , providing clear instructions on what students should be able to



do on completion of the material in terms of objectives and practical, guidance on how to approach the work, including how much time to devote to each portion, how to organize an assignment, and how to approach a hands-on class project. Students are more likely to retain information when it is presented in a format that piques their interest and stimulates their imagination, such as by presenting learning objectives through a story or anecdote rather than a list of facts, and when they are given the freedom to evaluate their own progress in learning based on the results of their own efforts. Guiding, structuring, and offering adequate guidance for on practical, encouraging personal relationship between learners and lecturers through well-developed communication tools, making sure instruction is clear and consistent, and facilitating students' awareness of expected learning outcomes and practical in the food laboratory. In agreement with the findings, Igwe et al., (2014) noted that entrepreneurship skills equip students with relevant knowledge, attitudes and skills needed for starting and running businesses successfully. Page | 68

The implication of the results can be entrepreneurial as it will be a veritable tool in the hands of registered entrepreneurs and teachers in that it will help to arouse and stimulate creativity and critical thinking in students of higher institutions. Academically, it can be useful to Food and Nutrition teachers and Extension Officers in educating students who will in turn cascade the knowledge down to the masses and the society at large. Several factors limited the research such as high cost of data analysis, publication fee, refusal of some entrepreneurs from participating and accepting the questionnaires, time constraint and financial challenges. However, the researchers suggest that the study should be carried out in different location using different research design and data collection method for further study.

4. Conclusion

Based on the findings of the study, it can be concluded that the ways of enhancing entrepreneurial skills in foods and Nutrition included in-service training for teachers, proper integration of practical with theory in teaching foods and nutrition, curriculum review in foods and nutrition programs to infuse entrepreneurial skills that will meet the needs of students, among others. Findings showed that the ways to boost creative and critical thinking among university students in Lagos State included helping them recognize important concepts, pointing out connections between ideas, stimulating their ability to evaluate outcomes, and encouraging them to assess themselves and make decisions are all effective. Findings also revealed that some obstacles to developing food and

nutrition entrepreneurship skills among university students included that most universities lack a food and nutrition laboratory, vocational food and nutrition experts are scarce, and there are not enough supplies to go around during practical classes to keep up with the number of students. Findings also indicated that the ways of reducing challenges to enhancing entrepreneurial skills in Foods and Nutrition included arousing attention and retention by presenting learning objectives through qualified lecturers, facilitating students' awareness on the expected learning outcomes and practical classes, giving learners feedback on exercises and activities carried out in the food laboratory, among others. The researchers recommends among others that foods and nutrition lecturers should acquire relevant skills required for entrepreneurship training, government and school management should provide relevant tools and equipment's as well as equipped food and nutrition laboratories for effective practical training, training and retraining of lecturers is very essential, there should be frequent food exhibitions and food funfair as this will enable the students to display some of the items produced by them for others to see and this type of exercise could stimulate critical thinking and creativity among students.

Acknowledgements

We appreciate the research assistants, manuscript proofreader, Home Economics lecturers, Senior Staff of Small and Medium Enterprises Development Agency of Nigeria, and Home Economics Students who participated in the study.

Conflict of Interest

The authors declare that there is no conflict of interest.

Authors' Contributions

Atinuke Titilola Lano –Maduagu conceptualized, edited and ensured that data was analyzed and discussion section was completed while Kemi Priscillia Ogbonna proposed the methodology, provided some materials, software and also analyzed the data. Both authors approved the final version for publication.

Data Availability Statement

The original contributions presented in the study are included in the article. Further inquiries can be directed to corresponding author.

Funding Information

The authors have no funding to disclose.

References

- Abdulahi, B. M. A. (2021). Critical thinking, components, skills and strategies. *Revista Argentinade Clinica Psicologica*, 2, 1-6. <https://doi.org/10.24205/03276716.2020.4000>
- Abiamuwe, N. O., Seriki-Mosadolorun, J. S., Ogbonna, K. P., & Otobo, V. O. (2016). Teaching methods needed for enhancing creativity skills of students in home economics courses in Education District IV, Lagos State. *Journal of Science and Technical Education*, 1 (2), 195-206.
- Adeladu, A. O., & Adu, E. O. (2015). Review of the usage of e-learning facilities by economics teachers in Eastern Cape secondary schools, South Africa. *International Journal of Education and Science*, 9(3), 305-313
- Anyakoha, E.U. (2015). *Home Management for Schools and Colleges (Revised Edition)*. Onitsha: Africana First Publisher.
- Battal, F., & Azharsyah, I. (2023). How does cynicism mediate spiritual leadership and organizational commitment? A case study of Turkish and Indonesian University. *Ege Academic Review*, 23 (2), 315-330. <https://doi.org/10.21121/eab.1186184>
- Goto, S., Makina, H., & Ando, T. (2023). Making the most out of the Innovation of Meaning: the importance of inclusion for creativity in inside out envisioning. *Creativity and Innovation Management*, 32(2), 298-319. <https://doi.org/10.1111/caim.12546>
- Igwe, N. C., Oyelola, O. T., Ajiboshin, I. O., & Peluola, S. B. (2014). Establishing Entrepreneurship Development Center: Lessons from Yaba College of Technology, Yaba, Lagos, Nigeria. *Journal of Poverty, Investment and Development*, 5, 102-111
- Ikhtiar-Alam, S.M. (2021). Definition, meaning, and necessary characteristics of entrepreneurship. Entrepreneurship Development Conference, Jahangirnagar University, Dhaka. <https://doi.org/10.13140/RG.2.2.26469.01765>
- Ngwakwe, C.N. (2020). Relationship between entrepreneurship innovation, human capital and internationalization potential of global entrepreneurs. 4th Global Entrepreneurship and Business Management Summit, February 28-29, 2020 Rome, Italy.
- Nwajiofor, F. N. & Achukwu, B. C. (2011). Benefits, challenges and implication of implementing e-learning in Nigeria's higher institutions. *Unizik Orient Journal of Education*, 6 (1& 2), 221-229.
- Nworgu, B.G. (2006). *Educational research: Basic issues and methodology*. Nsukka: University



Trust Publishers.

Okolie, U. C., & Ogbaekirigwe, C. (2014). Entrepreneurship development through vocational education training: Issues and roles in skills acquisition and manpower development in a developing economy. *Journal of Educational Policy and Entrepreneurial Research*, 1(2), 151-157. Page | 71

Verganti, R. (2017). *Overcrowded: Designing meaningful products in a world awash with ideas*. Boston: MIT Press

Publisher: Department of Home Economics and Hospitality Management Education, University of Nigeria, Nsukka 41001, Nigeria

© 2023 the Author(s), licensee Department of Home Economics and Hospitality Management Education, University of Nigeria, Nsukka, Nigeria. This is an open access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>)