



THE UTILIZATION OF CREATIVE THINKING METHODS IN IMPLEMENTING ENTREPRENEURSHIP EDUCATION CURRICULUM IN TERTIARY INSTITUTIONS IN ENUGU STATE

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ABSTRACT: *Entrepreneurship education is globally seen as the answer to the growing socio-economic problem of unemployment and also a crucial element of growth and stability in any economy. Indeed, the prosperity of every country to a large extent is dependent on entrepreneurship. This study examined the extent at which creative thinking method has been utilized in implementing entrepreneurship education curriculum in tertiary institutions in Enugu state, Nigeria. The population for this study includes all entrepreneurship students at Enugu State's four private universities. The total population of the study is made up of nine hundred and sixty-seven (967) respondents. The study's sample size is 322 respondents. This sample was determined using the formula recommended by Yamane (1973). Data for the study were collected through a structured questionnaire. The data collected was analyzed using mean and standard deviation to answer the research questions. The independent sample T-test was used to test the hypothesis. The study revealed that the utilization of creative thinking method in entrepreneurial skills is low. It is therefore the recommendation of this study that teachers should use a brainstorming strategy in teaching in schools and conduct more studies discussing this strategy and its relation to other variables such as critical thinking and teachers should use visual representations while teaching entrepreneurship lessons.*

KEYWORDS: Creative Thinking, Entrepreneurship Education, Curriculum, Tertiary Institutions, Enugu State, Nigeria



INTRODUCTION

Entrepreneurship education is globally seen as the answer to the growing socio-economic problem of unemployment and also a crucial element of growth and stability in any economy. Indeed, the prosperity of every country to a large extent is dependent on entrepreneurship (Chris, 2018). Accordingly, intensive efforts, backed by deliberate policies and strategies have been made by several nations of the world to ensure its development and sustenance (Gregory, 2017). In Nigeria, the Federal government in collaboration with National Universities Commission (NUC) gave the directive for all Nigerian Universities to establish Entrepreneurial Development Centre (EDC) latest by the 2007/2008 academic session. Although this is a bold step in the right direction, the effectiveness of these centers in equipping graduates with job-creating and self-sustenance skills are being questioned (Eriba, 2015). Entrepreneurship education is the acquisition of knowledge, skills, and attitudes to enable the learner apprehend life challenges in whatever form and take decisive steps to realize new trends and opportunities for making those challenges in all aspects of human life. Entrepreneurship education is a critical resource for whole life education.

In order to develop an enterprising mindset and skills that may strengthen students' entrepreneurial ability, a rigorous education that stresses criticality, innovation, and creativity is required. Such education needs to reduce the role of the teacher to that of a facilitator. His activities, among others, will involve assisting students to construct knowledge based on their experience. In other words, the teacher is expected to redirect his focus on activities meant to assist students in their efforts to strengthen their capacity for productive activities. The drive to achieve this goal may sometimes be defeated or slowed down if the education system contains an irrelevant curriculum and an inappropriate pedagogical approach.

The focus of entrepreneurship education was to equip graduates with the requisite skills for entrepreneurial success after school. The overarching objective of the program was to reduce youths' unemployment; especially among school leavers, in Nigeria. Over the years, while graduates' unemployment has not abated, there is a growing national discontentment on the socio-economic relevance of the course in Nigerian education. This inability to meet its objectives has led to many uncoordinated revisions and changes in the pedagogical structure of the curricula over the years.

However, it is widely observed that schools do not utilize creative thinking in their entrepreneurship education. Creative thinking is a fundamental skill that is most cherished in entrepreneurship education. It involves the ability to create new ideas out of existing situations. It also involves an individual's readiness to evolve a new way of doing things. Indeed, an intending student may recognize an opportunity and may be willing to take risks to be able to build a business venture, but lack creative and innovative skills. This perceived challenge may render their efforts ineffective. Against this background, this study examined the extent at which creative thinking methods has been utilized in implementing entrepreneurship education curriculum in tertiary institutions in Enugu state, Nigeria.



LITERATURE REVIEW

Conceptual Literature

Figure 1 below demonstrates the diagrammatic relationship between the dependent and independent variables. The independent variables which are brain-storming, mind-mapping, reversals, and role-playing are at the left-hand side of the graph while the dependent variable (Entrepreneurship Education Curriculum) is situated at the right-hand side of the graph.

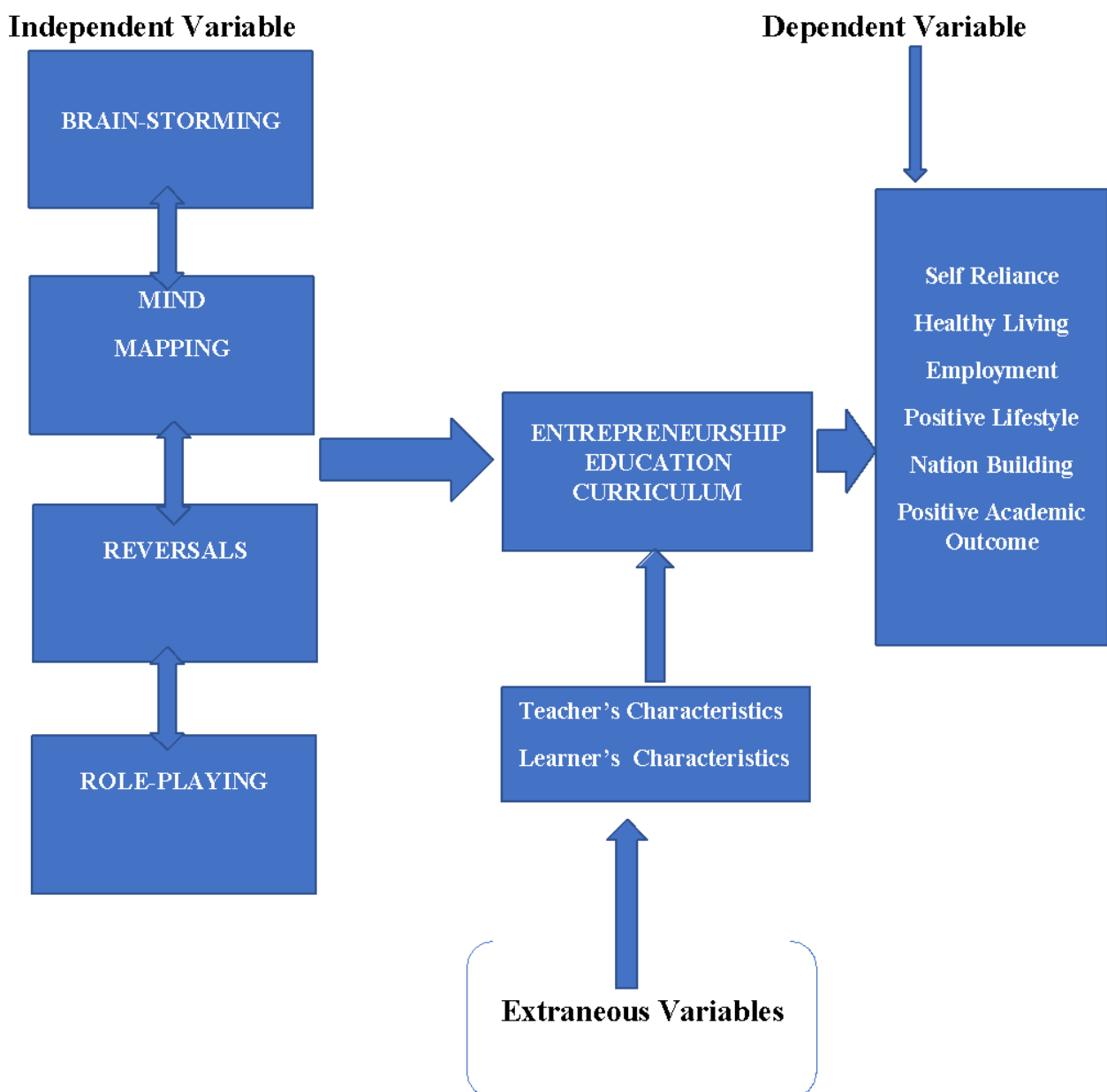


Figure 1: Conceptual Framework of the Study



Creative Thinking Method

Creativity is one of the most sought-after skills by employers. Companies and businesses are always looking for persons that could bring fresh ideas or unorthodox plausible solutions to problems. Businesses want to hire people who are problem solvers, those who would grow, not ground their services and activities (Ben, 2016). Companies are looking to employ those who would steer their businesses in profitable and productive directions. Creativity and innovation are a valuable resource in this respect. Thus, the inculcation of creative thinking skills should be central to basic education and learning programs. Creative thinking should be infused in all subjects and disciplines. Schools should emphasize creative and innovative techniques starting from the primary level. Schools should encourage the exercise of divergent and disruptive thinking. From an early age, pupils should learn and be taught to think out of the box (Henry, 2019).

Creative thinking refers to using abilities and soft skills to come up with new plausible solutions to problems. Creative thinking skills are techniques used to look at the issue from different and creative angles, using the right tools to assess it and develop a plan (Arbert, 2015). The focus on creativity and innovation is important because most problems might require approaches that have never been created or tried before. It is a highly valued skill to have individually and one that businesses should always aspire to have among their ranks. After all, the word creativity means a phenomenon where something new is created (Rhoda, 2017).

Creativity is one of the most appreciated learning skills in the 21st century. Creativity is conceived as a higher-order thinking skill based on complex and postformal thought concerned with the creation of new and valuable ideas. Higher-order thinking skills are those involved in proficient and strategic thought, and these skills comprise critical, creative and metacognitive thinking, also known as deep learning. In addition, the development of creativity is considered essential in order to achieve effective and high-level learning (Nwakaobi, 2016).

Despite the observed need for the development of creativity in the curriculum, there is a general tendency to reproduce teaching and learning models and a constraint on teacher's search for procedures to teach creativity, which involves little creativity development in students, with a predominance of reproductive learning (Alex, 2018). Creativity is inherent in human development and his personality. It begins to be developed from the first years of school and continues into higher education and increases through the number of experiences that the individual has, and to the extent that the activity of teachers could promote it (Henry & Bernard, 2019).

THEORETICAL FRAMEWORK

Jerome Bruner Learning Theory

The Jerome Bruner learning theory is a theory propounded by Jerome Bruner in 1961. Jerome Bruner is a developmental psychologist and cognitive psychologist from the United States. In his work, he combines psychological research and classroom practice. He conducted research to revive human interest in the "cognitive process" that is to receive, store and convey information. Bruner has promoted a laboratory study of the problem of "cognitive processes" that involve thinking and learning abilities. The main center of his work is the concept of



development. Bruner did not develop systematic learning theories. What matters to him is how to choose, maintain and transform information actively, and this is what he thinks is the essence of learning. The Bruner approach to learning is based on two assumptions.

RESEARCH METHODS

Design of the Study

For this study, the researcher used a descriptive survey design. This type of study allows for a range of approaches for recruiting participants, collecting data, and using various instrumentation techniques (Ponto, 2015). This design is considered appropriate for this study because it enables the use of reliable techniques for data collection from the population. Above all, this study requests the opinions of students on the utilization of creative thinking methods in implementing entrepreneurship education curriculum in tertiary institutions in Enugu State, Nigeria.

Area of the Study

This study was carried out in tertiary institutions in Enugu Education Zone of Enugu State. Enugu State has four private universities namely; Coal City University, Caritas University, Renaissance University, and Godfrey Okoye University.

Population of the Study

The population for this study includes all entrepreneurship education students and their lecturers from four private universities in Enugu Education Zone of Enugu State. The total number of students and lecturers for the study is nine hundred and sixty seven (967) and seven (7) for students and lecturers respectively. (School's Registry, 2022).

This concurs with Nworgu's (2015) supposition that the population of a study should be such that it can provide the most authentic and dependable data needed to solve the problem. The study's population consists of entrepreneurship studies lecturers from four private universities and 200 level students.

Sample and Sampling Techniques

The study's sample size is 322 people. The analysis is reported in the appendix section of the study. The sample size was calculated using the Taro Yamane Formula by the researcher. Taro Yamane, a statistician, developed the Taro Yamane method for calculating sample size in 1967. The sampling method used in the study was Simple Random Sampling (SRS). SRS, by definition, considers the fact that all elements in the population have an equal chance of selection. The basic assumption underlying simple random sampling (SRS) is that the elements or individuals in the population are assumed to be homogeneous.

Method of Data Analysis

Mean and standard deviation were used to answer the research questions. The independent sample t-test was used to test the hypothesis. This is necessary because the independent and dependent variables were measured in a continuum to ascertain their significant differences.



The decision mean remark for rating the applicability of creative thinking methods was given as: $4+3+2+1=10, 10/4 = 2.50$. Therefore, 2.50 was the criterion mean score for the pass mark. The data were presented in tables. The benchmark for the mean is 2.5, values higher than 2.5 and equal to 2.5 were accepted and it showed that the cluster is positive and accepted while below 2.5 were rejected.

RESULTS

In this chapter, data for the study were presented and analyzed according to the research questions and the corresponding hypothesis that guided the study.

Demographic Information

Table 1
Gender of Respondents

Category	Male	Female	Frequency	Percentage
Valid Lecturers	4	3	7	0.07
Students	117	183	300	3
Total	121	186		

It can be seen from Table one that the profile of the respondent shows that 7 respondents representing 0.07% of the respondents were lecturers while 300 constituting 3% of the respondents were students. This goes to show that the majority of the respondents were students.

Research Question One

What are the different creative thinking methods used in the implementation of entrepreneurship education?

Table 1

Creative Thinking Methods

Creative Methods	Percentage
Brainstorming Method	72%
Mind Mapping	81%
Reversals Method	83%
Role Playing Method	76%
Storyboarding	16%
Gallery Method	12%
Total	100

Table 1 reports the different types of creative methods in curriculum implementation of entrepreneurship education. The corresponding percentages reveal the frequency of percentages from respondents who were asked to identify the creative methods known to them.



Research Question Two

To what extent is the brainstorming method of creative thinking applied in implementing entrepreneurship education curriculum?

Table 2: Brainstorming Method

S/N	Items	\bar{x}	SD	Dec
1	We write down ideas that relate to an entrepreneurial topic	2.41	2.144761	R
2	We critique, and discuss specific creative ideas during class	2.32	2.31724	R
3	We engage in figure storming. (How a well-known public figure would approach the problem or think about an idea	2.47	2.269361	R
4	We employ visualization method employed during the teaching of entrepreneurship	2.40	2.132274	R
5	We teach or learn how to generate inspirational ideas	2.33	2.249575	R
6	We participate, contribute and work on one idea during the brainstorming class	2.42	2.136289	R
7	We teach or learn how best to executive ideas	2.30	2.106243	R
8	We are taken to an environment outside the conventional classroom to be instructed on creative thinking and idea generation	2.25	2.201562	R
Grand Mean		2.3625	2.194663	R

Key: N = Number of Subjects, \bar{x} = Mean, SD = Standard Deviation, Dec = Decision, A = Rejected



The grand mean response of 2.3625 with its associated standard deviation of 2.194663 which is below the mean rating benchmark of 2.50 indicated that the respondents do not agree with the eight items under cluster B thereby concluding that, the extent of the brainstorming method of creative thinking applied in implementing entrepreneurship education curriculum is very low.

Research Question Three

To what extent is the mind mapping method of creative thinking applied in implementing entrepreneurship education curriculum?

Table 3: Mind Mapping Method

S/N	Items	\bar{x}	SD	Dec
1	Ideas are thrown at you and you are asked how they can be achieved	2.32	2.244731	R
2	We are taught concerning the concept of mind-mapping	2.22	2.11711	R
3	We are given materials on mind-mapping techniques	2.13	2.017265	R
4	We are engaged with the mind-mapping materials that is being presented	2.42	2.339873	R
5	We are taught how to make connections between different ideas/areas, and delving in-depth into that area	2.33	2.226634	R
6	We work together on group projects or assignments using online mind-mapping study tools	2.29	2.111896	R
7	We are given the opportunity to express your ideas about a topic in a Mind Map before and after a class	2.44	2.333112	R
8	We are instructed on how to connect two or more ideas simultaneously	2.23	2.108874	R
Grand Mean		2.2975	2.187437	R

Key: N = Number of Subjects, \bar{x} = Mean, SD = Standard Deviation, Dec = Decision, A = Rejected



From Table 2 cluster B, it can be clearly seen that the grand mean yielded 2.2975. Hence, the grand mean response of 2.2975 with its associated standard deviation of 2.187437 which is below the mean rating benchmark of 2.50 indicated that the respondents do not agree with the eight items under cluster C. This, therefore, led to the conclusion that the extent of the mind-mapping method of creative thinking applied in implementing entrepreneurship education curriculum is also very low.

Research Question Four

To what extent is the reversal method of creative thinking applied in implementing entrepreneurship education curriculum?

Table 3: Reversals Method

S/N	Items	\bar{x}	SD	Dec
1	We are taught how to change a positive creative idea into a negative destructive one	2.29	2.144761	R
2	We teach and learn how to expect a negative outcome from an idea	2.22	2.31724	R
3	We are instructed on how to dictate a missing perspective in a creative idea	2.47	2.269361	R
4	We are taught how to think long term idea	2.40	2.132274	R
5	We teach and learn the skills of magnifying an expected negative outcome of an idea	2.33	2.149575	R
6	We are you taught about the sustainability of a creative idea	2.42	2.336289	R
7	We teach and learn how to critically examine the potential failures when an idea is generated	2.30	2.206243	R
8	We are taught the skills of rival sensitivity in idea generation	2.35	2.101562	R
Grand Mean		2.3475	2.207163	R

Key: N = Number of Subjects, \bar{x} = Mean, SD = Standard Deviation, Dec = Decision, A = Rejected



From Table 3 cluster D, it can be clearly seen that the grand mean yielded 2.3475. Hence, the grand mean response of 2.3475 with its associated standard deviation of 2.207163 which is below the mean rating benchmark of 2.50 indicated that the respondents do not agree with the eight items under cluster C. This, therefore, led to the conclusion that the extent of the reversals method of creative thinking applied in the implementation of entrepreneurship education curriculum is very low.

Research Question Five

To what extent is the role-playing method of creative thinking applied in implementing entrepreneurship education curriculum?

Table 5: Role-Playing Method

S/N	Items	\bar{x}	SD	Dec
1	We are taught skills used in real-world situations in creative idea negotiation	2.41	2.144761	R
2	We have been taught to assume the position of a sales representative and sell a product	2.32	2.31724	R
3	We have been prepared as students for a guest speaker in merchandising	2.47	2.269361	R
4	We have been prepared to role-play a well-known business entrepreneur	2.40	2.132274	R
5	We are taught skills on how to debate your creative ideas	2.33	2.249575	R
6	We are prepared to face unpredictable situations in business	2.42	2.136289	R
7	We are prepared on ideas-testing skills	2.30	2.106243	R
8	We are instructed as a group to engage in role-playing activities during your entrepreneurial classes	2.25	2.201562	R
Grand Mean		2.3625	2.194663	R

Key: N = Number of Subjects, \bar{x} = Mean, SD = Standard Deviation, Dec = Decision, A = Rejected



From Table 5 cluster E, it can be clearly seen that the grand mean yielded 2.3625. Hence, the grand mean response of 2.3625 with its associated standard deviation of 2.194663 which is below the mean rating benchmark of 2.50 indicated that the respondents do not agree with the eight items under cluster E. This, therefore, led to the conclusion that the extent of the role-playing method of creative thinking applied in the implementation of entrepreneurship education curriculum is very low.

Hypotheses Testing

Hypothesis 1

H₀₁: There is no significant difference in the mean responses of lecturers and students in the utilization of creative thinking methods in implementing entrepreneurship education curriculum in tertiary institutions in Enugu State, Nigeria.

Table 6:
Independent Samples t-test

	Levene's Test for Equality of Variances	t-test for Equality of Means								
		F	Sig.	T	Df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Lecturers Equal variances assumed	11.5277	.003	-0.221	56	.114	-.24511	.11358	-.47336	.06173	
Students Equal variances not assumed			-2.833	47.00 0	.321	-.15783	.05148	-.34942	-.01229	

From Table 6, the independent sample t-test gave an f value of 11.277 and t value of -0.221 and this is insignificant given that the value is less absolute 2. This leads to the decision that the null hypothesis is not rejected. This implies that there is no significant difference in the mean responses of lecturers and students in the utilization of creative thinking methods in implementing entrepreneurship education curricula in tertiary institutions in Enugu State, Nigeria.

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Based on the findings of the study, it was discovered that none of the creative thinking methods (brainstorming, mind-mapping, reversal, and role-playing method) is impressively applied in the implementation of educational curriculum in tertiary institutions in Enugu State. Based on this, it can be concluded that the educational system in Nigeria today puts too much emphasis



on blind obedience to the teacher in the classroom, conformity to the age-old established norms and practices in the school, and reproduction of ideas in the examination. This is the legacy of the inherited colonial education whose aims were geared toward producing white-collar jobs that would sustain the colonial administration. In the current dispensation and situation, this system is not favorable to the generation of new ideas and full realization of human creative potential.

Recommendations for Action

Based on the findings of the study, the following recommendations were suggested:

1. Teachers should use a brainstorming strategy in teaching and conduct more studies discussing this strategy and its relation to other variables such as critical thinking.
2. Teachers should use visual representations while teaching entrepreneurship lessons. The visual representation is very helpful for generating ideas as well as graphically organizing and summarizing students' thoughts. These kinds of maps are very helpful to make students gradually build their creative thinking skills.
3. Educational practices should give attention to creative problem-solving skills. The teacher's role should be to stimulate and guide, providing a favorable climate and the necessary tools.
4. To make the role-playing teaching approach most productive, teachers should lead students towards greater levels of involvement during the process.
5. Teachers should be periodically trained and continually updated in the area of creative thinking skills and in the teaching and learning of entrepreneurial skills in tertiary institutions.

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