



Management Of Teachers’ Innovation For Secondary School Goal Attainment In Delta State

Erhurhore, Richard, Dr I.F Jack, Prof S.O Nwafor

**Department of Educational Management,
Faculty of Education,
University of Port Harcourt, Port Harcourt, Nigeria
07037587711**

ABSTRACT

This study investigated management of teachers’ innovation for secondary school goal attainment in Delta State. Two research questions and two hypotheses guided the study. The study adopted a descriptive survey design. The population comprised 254 principals in the 254 public senior secondary schools in Delta State. The sample size was all the 254 principals and census sampling technique used to determine the sample size. The instrument used for data collection was a well-structured questionnaire titled: “Management of Teachers’ Innovation for Secondary School Goal Attainment Questionnaire” (MTISSGAQ) developed by the researcher. The face and content validity of the instrument was validated by three experts in the Faculty of Education and the reliability coefficient was determined using Cronbach method to determine the internal consistency of the instrument, with coefficients that yielded; .81 and .72. The research questions were answered using mean and standard deviation, while the hypotheses was tested at 0.05 level of significance using z-test. The findings revealed that management of teachers’ innovation for secondary school goal attainment in Delta State include creative teaching, and brainstorming. Based on the findings of the study, the researcher recommended that principals ensure that teachers are creative in the classroom and bring ideas on how to make teaching interesting for students by making students part of the teaching process. Also, they should also encourage problem solving techniques in order to improve on brainstorming in the classroom for secondary school goal attainment in Delta State in Delta State.

Keywords: Management, Teacher Innovation, Secondary School Goal Attainment, Delta State

INTRODUCTION

Education is very essential and is the bedrock upon which societies make meaningful progress and development. It is seen as the transmission of what is worthwhile to those who become committed to it. The foundation of growth and development of any society is based on education and how its activities are carried out for purposeful actualization of societal goals. Education is seen as the oil that drives the wheel of any given society, and is a viable instrument that can change the state and condition of any nation. It is seen as the transmission of ideas, information, knowledge and culture from one generation to another. For any society to grow and develop, it must ensure that it embraces all the tenets of education and try to improve the educational system within its territory. Education is generally seen as the foundation of society which brings economic wealth, social prosperity and political stability.

Every nation desires to have good and quality education so as to progress and develop. The education practiced is aimed at attaining and achieving goals. School goal attainment refers to the actualization of goals of the schools. In secondary school, goals are set and steps are taken in order to achieve them. Goals in secondary schools are said to be attained if when indices such as improved students’ academic performance, improvement in teachers’ activities, teachers’ participation in decision making, presence at

meetings, improved teachers welfare, amongst others are present. The attainment of secondary education goals is very essential because objectives have been set which must be met. These goals help to channel all activities that go on in the schools and must procedures must be taken to achieve them.

Innovation can be simply defined as a new idea, creative thoughts, and new imaginations in form of device or method. However, innovation is often also viewed as the application of better solutions that meet new requirements, silent needs, or existing market needs. Such innovation takes place through the provision of more- effective products, processes, services, technologies, or business models that are made available to markets, governments and society.

The term "innovation" can be defined as something original and more effective that "breaks into" the market or society. Innovation is related to, but not the same as, invention, as innovation is more apt to involve the practical implementation of an invention (i.e. new/improved ability) to make a meaningful impact in the market or society. All organizations can innovate, including hospitals, universities, and local governments. Innovation processes usually involve: identifying customer needs, macro and micro trends, developing competences, and finding financial support for new inventions and at last practically applying those inventions for better solutions.

For efficient goal attainment in schools, there are certain innovations and innovative practices that must be included in order for that to be achieved. These innovations are critical to the development of education in every educational institution. The teacher who is the manager in the classroom must be able to be innovative in order to facilitate the teaching and learning process. It is very important for teachers in educational institutions to carry out innovative practices for change and progress within the schools.

Creative teaching is one innovation practice that teachers can initiate in the classroom. It is an exciting research area in education. Creative teaching has been linked to effective teaching that enhances learning (Sawyer, 2011). Creative teaching is an important component of nurturing creativity. It is defined as educational exchanges facilitated by the teacher that are unique, customized and meaningful and that are exciting, engaging and innovative (Craft, 2011). Creative teaching is complex, involving a broad range of skills, experience, and perspectives. Apparently, it suggests that this act of creative teaching emerges as a form of "disciplined improvisation," intimately tied to teacher experience.

Brainstorming is a creative idea generation technique. It is also a problem solving technique. This technique provides free environment to present individual ideas, without attracting criticism from any one. According to Wadge (2010), every generated idea is recorded and considered as solution to a problem. Brainstorming is problem-solving technique. It shows collective creative power of group of people. It is group productivity. This is used to find out large number of ideas in shorter time to solve the problem. This is accepted as one of the tool in quality management. It is useful to generate a large number of ideas about a problem. Brainstorming provides an environment free of criticism for creative and free exploration of options and ideas to solve problem.

For secondary school goals to be attained, there is need for educational managers to harness innovation and its practices as a way of increasing the standard of education in their respective domains. Teachers and principals should ensure that the modern and traditional methods of teaching and learning are reduced, in order to give room for more innovative methods. The importance of teachers' innovation cannot be over emphasized. They are closer to the students, and should try to do all they can to facilitate the teaching and learning process.

Aim and Objectives of the Study

The aim of this study was to examine management of teachers' innovation for secondary school goal attainment in Delta State. Specifically, the objectives sought to:

- i. investigate ways of managing creative teaching for secondary school goal attainment in Delta State.
- ii. find out ways of managing brainstorming for secondary school goal attainment in Delta State.

Research Questions

The following research questions guided this study

- i. What are the ways of managing creative teaching for secondary school goal attainment in Delta State?

- ii. What are the ways of managing brainstorming for secondary school goal attainment in Delta State?

Hypotheses

The following hypotheses were tested in the study at 0.05 level of significance

- i. There is no significant difference between the mean scores of male and female principals on ways of managing creative teaching for secondary school goal attainment in Delta State.
- ii. There is no significant difference between the mean scores of principals in urban and rural areas on ways of managing brainstorming for secondary school goal attainment in Delta State.

METHODOLOGY

The study adopted descriptive design since its emphasis was interested in examining management of teachers’ innovation for secondary school goal attainment. The population for this study consisted of the 254 principals in the 254 public senior secondary schools in Delta State. The sample size that was used for this study was 254 principals using census sampling technique. The instrument that was used for data collection in this study was a self-structured questionnaire titled “Management of Teachers’ Innovation for Secondary School Goal Attainment Questionnaire” (MTISSGAQ). The questionnaires were structured using four points modified Likert type rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The instrument was face and content validated by four experts in University of Port Harcourt. The reliability of the instrument was estimated using Cronbach Alpha Statistics with a coefficient of .81 and 0.72 for the independent and dependent variables respectively. The questionnaires were administered by the researcher and two research assistants and 254 copies of the instrument were administered. The research questions for this study were answered using mean and standard deviation, while the hypotheses were tested at 0.05 level of significance using z-test.

PRESENTATION OF RESULTS

Answers to Research Questions

Research question 1: *What are the ways of managing creative teaching for secondary school goal attainment in Delta State?*

Table 1: Mean and standard deviation scores of ways of managing creative teaching for secondary school goal attainment in Delta State

S/N	Items	Male Principals (154)			Female Principals(100)		
		Mean	Sd	Decision	Mean	Sd	Decision
1	Teaching students with the use of projectors	3.06	.47	Agreed	3.01	.56	Agreed
2	Making students think critically before answering questions	3.08	.45	Agreed	2.98	.68	Agreed
3	Changing the sitting arrangement in the classroom	2.43	.65	Disagreed	2.29	.47	Disagreed
4	Teaching with instructional aids	3.09	.46	Agreed	3.05	.51	Agreed
5	Engaging students in discussions while teaching	3.12	.38	Agreed	3.12	.38	Agreed
6	Decorating the classroom to serve a conducive purpose	3.14	.49	Agreed	3.06	.54	Agreed
7	Using technological equipment in class	3.14	.66	Agreed	3.02	.82	Agreed
8	Improving on acquired teaching skills	3.16	.71	Agreed	3.02	.88	Agreed
Aggregate mean and standard deviation		3.03	0.53	Agreed	2.94	0.61	Agreed

Table 1 revealed that items with serial numbers 1, 2, 4, 5, 6, 7 and 8 have their various mean values above the criterion mean value of 2.50 and were agreed by the respondents as ways of managing creative teaching for secondary school goal attainment in Delta State. The aggregate mean values of male and

female principals was 3.03 and 2.94 which is above the criterion mean value of 2.50, this suggest that the items are ways creative teaching can be managed for secondary school goal attainment in Delta State. The standard deviation scores of 0.53 and 0.61 showed that the respondents were not dispersed in their responses.

Research question 2: *What are the ways of managing brainstorming for secondary school goal attainment in Delta State?*

Table 2: Mean and standard deviation scores of ways of managing brainstorming for secondary school goal attainment in Delta State

S/N	Items	Urban Principals (154)			Rural Principals (100)		
		Mean	Sd	Decision	Mean	Sd	Decision
9	Encouraging students to think well before making a decision	3.32	.56	Agreed	3.17	.77	Agreed
10	Ensuring group work	3.10	.52	Agreed	2.94	.70	Agreed
11	Encouraging problem solving techniques	2.39	.53	Disagreed	2.31	.63	Disagreed
12	Encouraging criticism from students	2.46	.65	Disagreed	2.44	.65	Disagreed
13	Encouraging students to solve problems individually	2.43	.81	Disagreed	2.32	.83	Disagreed
14	Encouraging students to solve problems as a group	2.92	.27	Agreed	2.92	.27	Agreed
15	Giving tasks to students to solve while in class	3.25	.53	Agreed	3.24	.53	Agreed
16	Seeking for help from experienced teachers	3.16	.71	Agreed	3.02	.88	Agreed
Aggregate mean and standard deviation		2.84	.55	Agreed	2.76	.63	Agreed

Table 2 revealed that items with serial numbers 9, 10, 14, 15 and 16 have their various mean values above the criterion mean value of 2.50 and were agreed by the respondents as ways of managing brainstorming for secondary school goal attainment in Delta State while serial number 11, 12, and 13 were below mean criterion of 2.50. The aggregate mean values of 2.84 and 2.76 are above the criterion mean value of 2.50 also showing ways brainstorming can be managed for secondary school goal attainment in Delta State. The standard deviation scores of 0.55 and 0.63 showed that the respondents were not dispersed in their responses.

Test of Hypotheses

Hypothesis 1: There is no significant difference between the mean scores of male and female principals on ways of managing creative teaching for secondary school goal attainment in Delta State.

Table 3: z-test analysis of the mean differences between the mean scores of male and female principals on ways of managing creative teaching for secondary school goal attainment in Delta State.

Gender	N	Mean	SD	Df	z-cal.	z-crit.	Sig.	Decision
Male principals	154	3.03	.53	252	2.40	1.96	.01	Hypothesis is rejected
Female principals	100	2.94	.61					

Table 3 showed that male principals have mean and standard deviation scores of 3.03 and 0.53 while female principals have mean and standard deviation scores of 2.94 and 0.61 respectively. With degree of freedom of 252, the calculated z-value of 2.40 is greater than the critical value of 1.96 at 0.05 level of significance. Therefore, the null hypothesis is rejected. This implied that there is a significant difference between the mean scores of male and female principals on ways creative teaching can be managed for secondary school goal attainment in Delta State.

Hypothesis 2: There is no significant difference between the mean scores of principals in urban and rural areas on ways of managing brainstorming for secondary school goal attainment in Delta State.

Table 4: z-test analysis of the mean differences between the mean scores of principals in urban and rural areas on ways of managing brainstorming for secondary school goal attainment in Delta State.

Location	N	Mean	SD	df	z-cal.	z-crit.	Sig.	Decision
Urban principals	154	2.88	.55	252				
Rural principals	100	2.76	.63		2.26	1.96	.03	Hypothesis is rejected

Table 4 showed that principals in urban areas have mean and standard deviation scores of 2.88 and .55 while principals in rural areas have mean and standard deviation scores of 2.76 and .63 respectively. With degree of freedom of 252, the calculated z-value of 2.26 is greater than the critical value of 1.96 at 0.05 level of significance. Therefore, the null hypothesis is rejected. This implied that there is a significant difference between the mean scores of principals in urban and rural areas on ways brainstorming can be managed for secondary school goal attainment in Delta State.

DISCUSSION OF FINDINGS

Ways of managing creative teaching for secondary school goal attainment in Delta State.

The study had shown that the ways creative teaching can be managed for secondary school goal attainment in Delta State are teaching students with projectors, making students think critically before answering questions, teaching with instructional materials in the class, changing the sitting arrangement in the class, decorating the classroom, engaging students in discussion while teaching, using technological equipment in the class and improving on acquired teaching skills for secondary school goal attainment in Delta State. This was in agreement with Rinkevich (2011) who believed that creative teaching has been linked to effective teaching that enhances learning. Rubenstein, McCoach, and Siegle (2013) did not differ as they saw the teaching environment as a way of inhibiting teacher creativity. They emphasize the role of teacher perceptions and the sense a professional may have about the creative opportunities within their environment.

From the above assertion, it is apparent that teachers need to be creative in order to ensure that creative teaching is well managed in class. Decorating classrooms by teachers is very essential if the creativity of the teacher is to be enhanced. Instructional materials aid and assist in the facilitation of the teaching and learning process and also helps to make teaching concrete. The sitting arrangements in the classroom, teaching with projectors, making students think well and critically is a way of managing creative teaching for secondary school goal attainment in Delta State.

The study had shown that the ways brainstorming can be managed for secondary school goal attainment in Delta State are encouraging group work, encouraging students to think well before answering questions, encouraging criticisms from students, encouraging problem solving techniques, encouraging students to solve problems as a group, encouraging them to solve problems individually, giving tasks to students to solve in the classroom and seeking for help from experienced teachers for secondary school goal attainment in Delta State. This was in agreement with (Kumbhar, 2018) who believed that brainstorming as a group creativity technique generates large number of ideas for solution of problem in text/note form. What this means is that brainstorming helps to generate ideas that help profer solutions to problems.

Allowing students to think well before answering questions is very important if problems are to be solved and if the brainstorming capability of the teacher is to be managed. They need to think before responding to questions from the teacher. The teacher, encouraging students to solve problems individually is very essential and brainstorming helps them achieve that.

CONCLUSION

Based on the findings of this study, it was concluded that management of teachers' innovation in Delta State involves creative teaching, brainstorming, audio-visual materials, out of class learning, teamwork

and stimulation of classroom environment for secondary school goal attainment in public senior secondary schools in Delta State.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

1. Principals should ensure that teachers are creative in the classroom and bring ideas on how to make teaching interesting for students by making students part of the teaching process
2. They should make teachers should think well before coming to the classroom to teach and also encourage problem solving techniques in order to improve on brainstorming in the classroom.

REFERENCES

- Craft, A. (2011). *Approaches to creativity in education in the United Kingdom*. In J. Sefton-Green, P. Thomson, K. Jones, & L. Bresler (Eds.), *The Routledge international handbook of creative learning* (pp. 129-139). New York, NY: Routledge.
- Kumbhar, K. N. (2018). *Brainstorming technique: Innovative quality management tool for library awareness*. New Delhi Publishers
- Rinkevich, J. L. (2011). Creative teaching: Why it matters and where to begin. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 84(5), 219-223
- Rubenstein, L. D., McCoach, D. B. & Siegle, D. (2013). Teaching for creativity scales: An instrument to examine teachers' perceptions of factors that allow for the teaching of creativity. *Creativity Research Journal*, 25(3), 324-334.
- Sawyer, R. K. (2011). *Explaining creativity: The science of human innovation*. Oxford University Press.
- Wadge, K. N. (2010). *Brainstorming: an Innovative Technique*. Paper presented in National Conference on New Dimensions in Library Management. Augangabad. S.B.E.S.College of Science.