

**PRINCIPALS' MANAGEMENT OF DISRUPTIVE INNOVATIONS IN LESSON  
PLANNING AND DELIVERY FOR TEACHING IN PUBLIC SECONDARY SCHOOLS  
IN DELTA STATE**

By

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**Abstract**

*This study investigated principals' management of disruptive innovations in areas of lesson planning and delivery for teaching in public secondary schools in Delta State. Two research questions and two hypotheses were answered and tested respectively. The descriptive survey research design was adopted. The population was made up of 906 principals from senior and junior secondary schools in Delta State. The stratified random sampling technique was used to draw the sample size of 200 principals representing 22.1%. The questionnaire titled "Principals' Management of Disruptive Innovations Questionnaire" (PMDIQ) was used for data collection. A reliability coefficient of 0.79 was obtained using Cronbach Alpha Statistics Mean and Weighed mean were used to answer the research questions while z test was used to test the hypotheses at a 0.05 level of significance. The study reveals that early inspection of lesson, and veteran knowledge, adequate provision of instructional materials, choice of teachers with good skills, better classroom management are ways of managing disruptive innovations in areas of lesson planning and delivery in public secondary schools in Delta State. The study recommends that the government and principals should ensure the adequate allocation of resources for the conduct of training for the usage of disruptive innovations, improvement of school plant maintenance, and aligning disruptive innovation with the right level of students and the willingness to take the risk of implementing these disruptive innovations with the aim of departing from moribund practices, and embarrassing 21st century lesson delivery practices.*

**Keywords:** Principal, Management, Disruptive Innovation, Lesson Planning and Delivery, Teaching, Public Secondary Schools

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**Introduction**

Effective teaching is not only about the introduction of technology (that may be disruptive) but also good ability to manage these disruptive innovations in the right direction. In keeping with the innovations to effect lasting changes, the educational system is dependent on those who manage the delivery process, who at the secondary schools level are the principals. To guarantee their viability and the capacity to deliver, the principals as managers need to assume the role of strategic partners with a central objective to generate support towards the achievement of the educational goals. The present period is absolutely a new era for inventive thinking, risk taking, digital literacy, effective communication, and high productivity.

With the numerous innovations and the resultant enormous managerial task burdens on the managers, the secondary school sector of education designed to prepare individuals for useful living within the society and higher education according to the Federal Republic of Nigeria (FRN, 2013), has been described as a means of acquiring mere facts and information for passing examinations and not for life that exists in the society.

Good lesson planning is paramount to the process of teaching and learning. A teacher who is well prepared is headed for a successful teaching experience. The development of interesting lessons takes a lot of time and effort. An effective teacher must be committed to spending time on this. When we talk of lesson planning, it can be referred to as the process by which a teacher carefully itemizes and works out the style by which he/she can effectively carry out and deliver his/her lesson to the understanding and retention of the students in order to achieve the aim of education and learning in the wind of change (George, 2011). It is of a great benefit to understand that it is only a good lesson plan for effective teaching in a well-controlled classroom that can make the learning out-come possible. This can't only be done just by maintaining a laid down rule or status quo but also by variety. This is why innovations, especially disruptive ones are necessary which the researchers believe led to the movement from the usage of the conventional method of lesson plan to the present one, which is referred to as the Cambridge 'TKT' (Teaching Knowledge Test). Though both the conventional and Cambridge (TKT) model lesson plans are geared towards effective teaching but at a glance, one sees that the conventional is teacher-centered while the 'TKT' is student-centered, moving from the era where the teacher does all to the Cambridge (TKT), where the students' inputs are evident and encouraged.

Lesson delivery is defined as the process of executing a planned lesson in a chronological manner to achieve pre-stated objectives. The 45–60 minute lesson used in the educational systems all over the world for a long time prompts the teachers to deliver their lesson plans with military precision (Patton, n.d). That makes the lesson complicated and inaccessible to some students. Never minding if students haven't fully grasped the subject matter before the bell rings – time, after all, waits for no man. A good lesson plan must be properly guided and the resource must be adequate and the interest of the students must be sustained (Osaat, 2009). Increasingly, however, schools are shifting away from the status-quo of the lesson as a rigid, course-specific unit of time that holds within the four walls of a classroom, to embracing the idea that a lesson can be many things; organic or structured; long or short; based within or beyond school premises. And as the structure of lessons diversifies, so too does the role of the teacher (Patton, n.d), making the lesson accessible, affordable and simple to all.

Interactive Video (IV) is a modern tool used in sending digital information to distant learners also allows a two-way video and audio dialogue between multiple locations (Brady, 1998). The teachers should to a desired extent be empowered to plan and deliver their lessons to bring about desired goals, for it is the teachers that have the specialized knowledge needed to impact favourably to the students (Kwek, 2011). Aduwa-Ogiegbaen and Iyamu (2005) opined that teachers and students in secondary schools in Nigeria will have incredible reasons available if they have access to the internet. Supervision of instructional lesson plans is mostly needed in schools for teachers to be more effective and efficient in class (Onuma, 2016). All secondary school administrators should engage in staff development (Peretomode & Ikoya, 2010).

### **Statement of the Problem**

There has been a growing disenchantment with the quality of public secondary schools, with emphasis on paper qualification. The system is also burdened by the inability to standardize activities. There is an attendant low level of modern infrastructure base in the face of present demands for quality education. For effective teaching to be carried out appropriately, instructional materials are necessary and these materials need to be innovative and disruptive ones making learning effective and lasting, achieving its

aims. There is need of the principals' management of disruptive innovations in areas of poor lesson planning and delivery as well as the necessary managerial skills needed for teaching in Delta State public secondary schools.

### **Purpose of the Study**

The study set out to:

- Ascertain the ways of managing disruptive innovations for lesson planning,
- Examine the skills needed in managing disruptive innovations for lesson delivery.

### **Significance of the Study**

The study shall be of immense benefit to managers of education, particularly at the secondary school level by enabling them to assume the role of innovation managers through the application of required skills that will help teachers and students to adapt to the dynamic society and technology for academic achievement.

### **Research Questions**

These two research questions guided this study:

- i. What are the ways of managing disruptive innovations for lesson planning in the secondary schools in Delta State?
- ii. What are the skills needed for managing disruptive innovations for lesson delivery in secondary school in Delta State?

### **Hypotheses**

The following hypotheses were tested at 0.05 level of significance:

**Ho<sub>1</sub>.** There is no significant difference between the mean rating of male and female secondary school principals on the ways of managing disruptive innovations for lesson planning in public secondary schools in Delta State.

**Ho<sub>2</sub>.** There is no significant difference between the mean rating of the urban and rural secondary schools principals on the needed skills for managing disruptive innovations for lesson delivery in public secondary schools in Delta State.

### **Method**

A descriptive survey research design was used. The population of the study comprised all 906 secondary school principals serving in Delta state public government secondary schools. The sample size for the study was 22.1% of the total population which gave two hundred (200) principals gotten by the stratified random sampling technique. The instrument used to collect data for this study is a structured questionnaire titled 'Principals' Management of Disruptive Innovations Questionnaire (PMDIQ). The responses were assigned the following values: Strongly Agree (SA) 4; Agree (A) 3; Disagree (D) 2; Strongly Disagree (SD) 1. To ascertain the reliability of the instrument, Cronbach alpha reliability was used and it yielded a coefficient of 0.79 showing that the instrument is reliable. The criterion mean was 2.5. On computing the mean scores of the responses, any statement with a weighted mean value below 2.5 was rejected while those with a weighted mean value above 2.5 were accepted.

### **Results**

**Research Question One:** What are the ways of managing disruptive innovations for lesson planning in the secondary school level in Delta State?

**Table 1:** Means, and weighted means of opinions of principals on the ways of managing disruptive innovations for lesson planning.

<i>S/N</i>	<i>Items</i>	<i>Male principals N= 118 1</i>	<i>Female principals N=82 1</i>	<i>Weighted mean N=200 1</i>	<i>Remarks</i>
1	Early inspection of lesson plan by the principal before lesson delivery to check incorporation of disruptive innovations will enhance teaching and learning.	3.51	3.37	3.44	Agreed
2	Constant guidance and support of the designed materials like (charts, flip, animations and clip art) is necessary for teaching and learning.	3.53	3.52	3.52	Agreed
3	Encouraging Online Learning Environment as an innovation has made lesson plan more capturing aiding effective teaching.	3.22	3.20	3.21	Agreed
4	Ensuring the inclusion of the learning styles in the preparation of lesson plan aids in achieving teaching and learning objectives.	3.31	3.26	3.28	Agreed
5	Provision of good online instructional materials which are a kind of disruptive innovations aid in the preparation of good lesson plan.	3.27	3.32	3.29	Agreed
6	Implementation of the incorporation of instructional design guidelines in the preparation of lesson plan aid teaching and learning.	3.34	3.37	3.35	Agreed
7	Regulation of media elements in lesson plan enables easier transition from Conventional method to Teaching Knowledge Test (TKT) method of lesson plan.	3.15	3.15	3.15	Agreed
8	Adequate provision of instructional materials for the teachers aid teaching.	3.61	3.55	3.58	Agreed
9	Provision of equitable instructional material aids lesson teaching and learning.	3.46	3.60	3.53	Agreed
10	Veteran knowledge of instructional materials abets effective teaching and learning.	3.27	3.24	3.26	Agreed
	Aggregate mean	3.35	3.36	3.36	High

From the data in Table 1, the items 1-10 had their weighted mean scores above the criterion mean of 2.5. This shows that the male and female principals both agree that early inspection of lesson plan, constant guidance and support of the designed materials, encouraging online learning, ensuring the inclusion of the learning styles, provision of good online instructional materials, provision of equitable, and veteran knowledge of instructional materials were strategies of managing disruptive innovations for lesson planning in public secondary schools in Delta State.

**Research Question Two:** What are the skills needed for managing disruptive innovations for lesson delivery in secondary schools in Delta State?

**Table 2:** Means and weighted means of opinions of principals on the ways of managing disruptive innovations for lesson delivery.

<i>S/N</i>	<i>Items</i>	<i>Rural principals N=90</i>	<i>Urban principals N=110</i>	<i>Weighted mean N=200</i>	<i>Remarks</i>
11	Choice of teachers conversant with innovations (disruptive) that has good attention catching skills deliver lessons more effectively.	3.42	3.39	3.41	Agreed
12	Inculcating better organizational skills to ensure adaptability to disruptive innovations in the teachers enhance qualitative lesson delivery.	3.43	3.40	3.42	Agreed

13	Attention catching skills increase student retentiveness of lessons delivered.	3.53	3.49	3.51	Agreed
14	Affirming the use of interaction compel interesting lesson leading to teaching and learning.	3.41	3.40	3.41	Agreed
15	Ensuring precision in lesson organization aids smooth lesson delivery.	3.42	3.39	3.41	Agreed
16	Enforcing better class management curbs classroom distractions.	3.42	3.45	3.43	Agreed
17	Training seminars keep the teachers in vogue with technological trends aiding better use of innovations in lesson delivery.	3.53	3.54	3.53	Agreed
	Aggregate mean	3.45	3.44	3.44	High

Table 2 shows that items 11-17 have their weighted mean scores above the criterion mean of 2.5 so indicating that better organizational skills, attention catching skills, use of interaction, precision, better class management, training seminars with technological trends are some of the strategies for managing disruptive innovations for lesson delivery in public secondary schools in Delta State.

**Hypothesis 1:** There is no significant difference between the mean ratings of male and female principals in the management of disruptive innovations for lesson planning in public secondary schools in Delta state.

**Table 3: z-test of differences between the mean ratings of male and female principals in the management of disruptive innovations for lesson planning.**

Variables	N	SD	Df	z-calc	z-crit	Decision
Male principals	118	3.35	0.67	198	0.11	1.96
Female principals	82	3.36	0.59			

From the data in Table 3, it shows that the z-calculated value of 0.11 is less than the z critical value of 1.96 at a degree of freedom of 198 at 0.05 level of significance. Hence, the null hypothesis is accepted, indicating that there is no significant difference between the mean ratings of male and female principals on the principals in the management of disruptive innovations for lesson planning.

**Hypothesis 2:** There is no significant difference between the mean rating of the urban and rural secondary schools principals on the needed skills for managing disruptive innovations for lesson delivery public secondary schools in Delta State

**Table 4: z-test of differences between the mean rating of rural and urban principals in the management of disruptive innovations for lesson delivery.**

Variables	N	SD	Df	z-calc	z-crit	Decision
Rural principals	90	3.45	0.62	198	0.11	1.96
Urban principals	110	3.44	0.62			

Table 4 shows that the z-calculated value of 0.11 is less than the z-critical value of 1.96 at a degree of freedom of 198 at 0.05 level of significance. Hence, the null hypothesis is accepted, indicating that there is no significant difference between the mean rating of rural and urban principals on the principals in the management of disruptive innovations for lesson delivery.

### Summary of Findings

- Early inspection of lesson plan, constant guidance and support of the designed materials, encouraging online learning, ensuring the inclusion of the learning styles, provision of good online instructional materials, provision of equitable, and veteran knowledge of instructional materials were strategies of managing disruptive innovations for lesson planning in public secondary schools in Delta State.

- ii. Choice of teachers that are conversant with disruptive innovations, inculcation of better organizational skills, attention catching skills, use of interaction, precision better class management, training seminars with technological trends are some of the strategies for managing disruptive innovations for lesson delivery in public secondary school in Delta State.

## **Discussion of Findings**

### **Managing Disruptive Innovation for Lesson Planning**

The result indicates that early inspection of lesson plan, constant guidance and support of the designed materials, adequate provision of instructional materials, and veteran knowledge of instructional materials were the ways employed for managing disruptive innovations in public secondary school in Delta State. This finding corroborates the view expressed by Osaat (2009) who insisted that for a good lesson plan, it must be properly guided and the instructional resources must be adequate and the interest of the students must be sustained. It also agrees with Onuma (2016) who opined that supervision of instructional lesson plans are mostly needed in schools for teachers to be more efficient and effective in class notwithstanding the principal's other administrative functions. It also agrees with Kwek (2011) who opined that teachers should be empowered as designers who plan their lessons to bring about desired changes or innovations for their students thereby achieving desired goals, for it is the teachers that have the specialized knowledge for their students. It also agrees with Daggett(2010) who emphasized that technological innovations provides teachers the opportunity to find a better lesson plan which will lead to effective instructional teaching and learning.

### **Managing Disruptive Innovation for Lesson Delivery**

The study reveals that the choice of teachers with good attention catching skills, better organizational skills, precision, better classroom management and training seminars if employed are skills in managing disruptive innovations for better lesson delivery. This finding agrees with Brady (1997) who insists that the instructor must be vigilant in making sure that students remain involved in the lesson which can be achieved with good classroom management and also attention catching skill, organizational skill and activeness are necessary being that students are active learners which emphasizes the use of interactive video, power point etc. It also agrees with Hietajarvi, Moisala, Soini, and Vaara,(2015) who emphasized that it has become ever important to consider not only how digital technologies might contribute to learning but also why that is important to learning. It also agrees with Aduwa-Ogiegbaen and Iyamu (2005) who emphasized that the computer gadgets in the Information Communication Technology (ICT) are capable of activating the sense of sight, hearing, and touch of the user. It is also capable of providing higher interactive potential for users to develop their individual's intellectual and creative ability. It also agrees with Peretomode and Ikoya (2010) who recommended that all secondary school administrators should engage in staff development activities in transformational leadership so that they can acquire the necessary knowledge, skills, attitude and other activities.

## **Conclusion**

Changes and innovations are inevitable to any developing and dynamic sector. Their introduction is not all about them but ability to be able to manage them to achieve maximum result is of utmost importance. That is why the role of the principal in managing disruptive innovation in public secondary schools is very vital such as being a content initiator, process initiator, mediator and a squasher.

## **Recommendations**

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

- i. The Delta State Government should allocate provision for the conduct of trainings through seminars, conferences for the usage of these disruptive innovations.



- ii. Principals who are the managers of the secondary schools should align disruptive innovations with the right level of students due to difference in the Intelligent Quotient (I.Q) level of the students.
- iii. The principals should to a very large extent be flexible in response to the disruptive innovations that confront the management of the schooling system.

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