

# Impact of Total Quality Management (TQM) on Secondary School Education for National Transformation: the Case of Benue North-West Senatorial District of Benue State, Nigeria.

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## Abstract

This study investigated possible transformational effects of total quality management (TQM) application to secondary schools management in Benue North-West Senatorial District of Nigeria. Three research questions and three hypotheses guided the study. The study adopted the survey research design. Three hundred and ninety-eight (398) teachers from 20 grant aided secondary schools constituted the sample of the study. The respondents were selected using simple random sampling techniques. A four point structure 15-item rating scale questionnaire titled 'impact of TQM on secondary education on national transformation questionnaire' (ITQMSENTQ) was constructed by the researchers for data collection. The data collected were analyzed using simple descriptive statistics as frequency counts, percentages, mean and standard deviation to answer research questions and chi-square ( $\chi^2$ ) inferential statistics for test of goodness was used to test hypotheses at  $p < 0.05$  level of significance. The study revealed that there was significant impact of quality teachers, quality funding and quality educational facilities in Benue state secondary schools that could affect national transformation. Based on the findings, it was recommended that quality academic staff in terms of qualifications and experience should be recruited into secondary schools to provide quality services, adequate provision of funds and facilities be made available for schools to provide quality educational services in secondary schools in Benue state.

**Keywords:** Total Quality Management (TQM), Quality of teachers, Funding, School Facilities, National Transformation.

## Introduction

Today, more than ever before in human history, the transformation of nations depends on quality of education. Conscious of the fact that success in the realization of educational goals depend largely on the quality of factor inputs, processes and outputs which is guaranteed by teacher effectiveness. Those with needed skills and greater capacity for learning can look forward to a lifetime of unprecedented economic fulfillment and national transformation through quality education.

Although the concept of quality is very old, today it is perhaps the major preoccupation of organizations and nations world-wide. In fact, quality has become an integral feature of the education system all over the world. We are continually being faced with quality initiatives and controls not only from central governments but from awarding bodies. Often, quality initiatives are incorporated into appraisal schemes and in total quality management (TQM).

TQM means a system of running the affairs of an organization or institution such that all aspects of the institution and appropriate resources are provided and utilized towards actualizing the goals of the institution (Mohanty, & Lakhe, 2003). It is a management technique that adopts a holistic approach in the work process. TQM equally means a quest for quality at all times. In education, it emphasizes teacher competence, creativity and commitment and how educational managers organize and lead in order to realize the full potentials of all personnel in an educational organization (Okorie & Uche, 2004).

Kezner (2001) argues that TQM approaches for school performance were established to improve quality leadership, teachers, response to goals and maximize quality, continuous school performance and national transformation hence schools need to adapt to evolving changes as needs arise because change is inevitable in the new millennium.

National transformation is a process that can be enhanced through quality management of education. Nwude (2003) therefore explained quality education in relation to its value in a society thus: quality Education is very vital in every human existence and societal development. It facilitates the rate of development and increases the standard of living, paving way for national ability. The above assertion states the significant role of total quality management in education for national transformation. Quality secondary school education can lead to national transformation with the recognition of the teacher and the roles they play in teaching-learning process.

The quality of any educational system depends greatly on the educational attainment of teachers as no system of education can be qualitatively higher than the quality and commitment of its teachers. This is why Ukeje (1996) supported this idea when he stated that education unlocks the door to modernization and it is the teacher who holds the key to that door.

Secondary School performance in Benue North-West Senatorial District in Benue State over the years has not been encouraging because of inadequate funds. Educational quality is declining as a result of reduced funding. Since under-funding breeds' inadequacy and instability, and it is far more difficult to run a poorly funded institution, sourcing for funds should be a prime concern of school administration. In an environment of under-funding, the administration should mitigate its adverse effects in quality assurance by establishing the right priorities and ensuring efficient deployment of scarce resources (Aworh, 2005). Most of the secondary schools are suffering because of lack of financial prudence but TQM preaches that quality education can be achieved only in an atmosphere of financial prudence which will help in the provision of infrastructure, laboratories, chemicals, classrooms etc to improve quality of education during national transformation.

It is important to explain here that nations cannot achieve desired educational quality for national transformation in the absence of functional school plants. Quality school plant or facilities are needed for teaching and learning in educational institutions. However, the level of infrastructural decay has tended to affect the quality of education that would have facilitated national transformation. It is against this background that the researchers are determined to find out the impact of Total Quality Management (TQM) of secondary school education in Benue North-West Senatorial district on national transformation.

### **The Problem**

Concerns have been expressed by relevant stakeholders in the education industry about falling standard of educational achievements in Nigeria. Stakeholders are worried over the problems of over enrollment, lack of qualified and enough teachers, inadequate and deteriorating physical facilities, as well as inadequate funding amongst others. In line with these concerns, emanates the issue of total quality management in secondary education for national transformation which is the base line of the educational system. When these concerns are weighed against the so called huge budgetary allocations by governments to education, concerns are expressed by stakeholders on the near absence of total quality management in secondary schools for national transformation in the State and particularly in the North-West Senatorial District of Benue State. Against this background, the major problem of this study is to investigate the impact of Total Quality Management in secondary school education for national transformation.

### **Purpose of the Study**

The main purpose of this study was to find out the impact of Total Quality Management (TQM) on Secondary school education for national transformation in Benue North-West Senatorial District. Specifically, the study sought to find out the extent to which the quality of teachers, adequate funding and quality school facilities impact on national transformation.

### **Research Questions**

The following research questions were formulated to guide the study;

- 1 How does the quality of teachers impact on secondary education for national transformation in Benue State of Nigeria?
- 2 In what ways does adequate funding impact on secondary education for national transformation?
- 3 How do quality School facilities impact on secondary education for national transformation?

### **Research Hypotheses**

The following null hypotheses were formulated and test at  $P < 0.05$  level of significance;

- H<sub>01</sub>:** Quality of secondary school teachers has no significant impact on education transformation in Benue state, Nigeria.
- H<sub>02</sub>:** Adequate funding does not significantly impact on secondary education for national transformation.
- H<sub>03</sub>:** Quality school facilities do not significantly impact on secondary education for National transformation.

### **Concept of Total Quality Management**

There are several definitions of the concept of Total Quality Management (TQM) as there are writers on the subject. TQM has therefore been defined in various ways such as a search for excellence, creating the right attitudes and controls to make the prevention of defectives possible and optimize school customer satisfaction by increased efficiency and school effectiveness. According to Oakland (1997), TQM is an approach for improving the competitiveness, effectiveness and flexibility of a whole organization in this study the educational industry. It is essentially a way of organizing and involving the whole organization, every department, every activity, every single person at every level. This definition brings to the forefront, the universality of the nature of TQM and explains the current imperatives for national transformation.

According to Okorie and Uche (2004), TQM means a system of running the affairs of a school or institution such that all aspects of the school and appropriate qualitative human, material, financial and information resources are effectively provided and utilized towards actualizing the goals of the school. They further posited that in education, it emphasizes teacher competence, creativity and commitment, material and financial resources availability, effective information flow and how educational managers organize and lead in order to realize the full potentials of all personnel in an educational organization. With TQM approach, everyone is involved, committed and each one takes responsibility for the quality of education. However, management and leadership must initiate it and show total support.

#### **Characteristics of Total Quality Management (TQM) for National Transformation**

According to Mohanty and Lakhe (2003:23) the concept of TQM has the following characteristics or features that can enhance national transformation;

1. It is a pragmatic long-term system approach which can be adopted and practiced through proper planning, systematic evaluation and allocating responsibilities and resources.
2. It is initiated and driven by top management example National Education Council, Ministry of Education, school Boards, Board of trustees etc.
3. It is aimed at bringing about a total cultural change in every facet of the organization and society.
4. It interlinks and integrates the various subsystems of the school.
5. TQM requires involvement, participation and cross functional management.
6. TQM aims at meeting the dynamic needs of the school customer and creates a loyal and diversified school customer base.

#### **Methodology**

The study adopted the survey research design. The population of the study consisted of all 1,713 teachers in the 119 grant-aided secondary schools in the North senatorial district of Benue state, Nigeria. A sample of 20 grant-aided secondary schools representing 16% of schools and 398 teachers representing 23% of total number of teachers were randomly selected for the study. Simple random sampling technique was deployed to select the population because the target population is homogeneous. The main instrument adopted for data collection was a 15-item structured questionnaire called TQM for National Transformation Questionnaire (TQMNTQ). The questionnaire was validated by experts in Educational Management and Tests and measurement from the faculty of Education, Benue State University, Makurdi. The questionnaire was trial tested using 30 teachers with Cronbach Alpha statistic to establish its reliability that yielded 'r' - 0.79. This coefficient indicated high internal consistency. The data collected were analyzed using simple descriptive statistics as mean, standard deviation to answer research questions and inferential statistics as chi-square to test the formulated hypotheses at  $p < 0.05$  level of significance.

#### **Results and Findings**

##### **Research Question 1**

*How do quality teachers impact on secondary school education for national transformation?*

**Table 1: Mean ratings and standard deviations of responses of teachers on the impact of quality teachers on national transformation**

S/N	Questionnaire items	SA	A	D	SD	Mean	ST.D	Decision
1	Enough and quality teachers improve school performance.	259	137	1	1	2.51	0.94	Accepted
2	My school has qualified teachers in various subjects.	148	224	22	4	2.29	0.89	Rejected
3	Quality recruitment and selection of teachers improve school performance.	228	162	8	0	3.03	0.88	Accepted
4	Adequate and well qualified teachers enhance maximum performance and job security	207	186	2	3	2.84	0.98	Accepted
5	Constant training and retraining of teachers through workshops, conferences, and seminars improve on school performance.	209	183	5	1	3.02	0.87	Accepted
<b>Cluster mean</b>						<b>2.74</b>	<b>0.91</b>	Accepted

Data presented on table one showed the mean ratings of teachers in secondary schools on how quality teachers impact on secondary schools. The data indicates that the mean ratings of teachers for items 1, 2, 3, 4 and 5 are 2.51, 2.29, 3.03, 2.84, and 3.02 with corresponding standard deviations of 0.94, 0.89, 0.88, 0.98 and 0.87. Based on the cut-off point of 2.50, teachers rated items 1,3,4 and 5 acceptable indicating that enough quality teachers, the quality of recruitment and selection of teachers, adequate and qualified teachers enhances maximum performance and job security, and that constant training and retraining of teachers through workshops, conferences and seminars improve secondary school performance. However, item 2 was rejected by teachers which clearly indicate that some schools lack qualified teachers in various subjects. The cluster mean of 2.74 and standard deviation of 0.91 indicates that quality teachers impact on secondary school education for national transformation.

### **Research Question 2**

*In what ways does adequate funding impact on secondary school education for national transformation?*

**Table 2: Mean ratings and standard deviations of responses of teachers on the impact of adequate funding on national transformation**

S/N	Questionnaire items	SA	A	D	SD	Mean	ST.D	Decision
6	Adequate funds, enhances quality performance in schools.	185	201	11	1	2.99	0.98	Accepted
7	Prompt payment of salaries and allowances to teachers motivate them towards quality performance.	191	196	10	1	2.59	0.95	Accepted
8	The state of funds of an institution is a prime determinant of its ability to attract quality teachers, facilities, materials, school needs and wants.	212	171	12	3	3.05	0.82	Accepted
9	Judicious use of funds enhances school performance	144	232	22	0	3.24	0.83	Accepted
10	Without funds quality educational programmes will not be successful.	189	198	8	3	3.43	2.24	Accepted
<b>Cluster mean</b>						<b>3.06</b>	<b>1.20</b>	Accepted

The data on table two showed that, items 6, 7, 8, 9 and 10 have mean rating scores of 2.99, 2.59, 3.05 and 3.43 with corresponding standard deviations of 0.98, 0.95, 0.82, 0.83 and 2.24 respectively well above the cut off point. Based on the data, the respondents' view is that quality funding of secondary education impact on national transformation. According to them, adequate funds, prompt payment of salaries and allowances to teachers motivates them towards quality performance, that judicious use of funds enhances educational programmes and that it is a prime determinant for the attraction of quality teachers, facilities, materials and other school needs and wants. The cluster mean of 3.06 and standard deviation 1.20 indicates that they share the view that quality funding of secondary education impact on national transformation.

### **Research Question 3**

*How do quality School facilities impact on secondary school education for national transformation?*

**Table 3: Mean ratings and standard deviations of responses of teachers on the impact of quality school facilities on national transformation**

S/N	Questionnaire items	SA	A	D	SD	Mean (X)	ST.D	Decision
11	Effective teaching and learning can only take place in a school with quality facilities.	240	136	12	10	3.37	0.87	Accepted
12	There are enough facilities and equipment for effective teaching and learning in my school.	18	20	160	200	2.33	0.98	Rejected
13	School facilities are properly utilized and maintained.	10	28	180	180	1.82	0.81	Rejected
14	Clean surroundings, good lockers, roofs, ceiling, toilets, library and tables enhance quality school performance.	270	116	22	0	2.85	1.07	Accepted
15	Quality health and sport facilities impact on school performance.	207	179	0	12	2.75	1.06	Accepted
<b>Cluster mean</b>						<b>2.62</b>	<b>0.96</b>	Accepted

The data presented on table three showed that mean rating scores of items 11, 12, 13, 14 and 15 are 3.37, 2.33, 1.82, 2.85 and 2.75 with corresponding standard deviations of 0.87, 0.98, 0.81, 1.07 and 1.06 respectively. Based on the cut-off point of 2.50, teachers rated items 16, 19 and 20 as acceptable while items 12 and 13 are rejected. This implies that effective teaching and learning can only take place in a school with adequate facilities and that clean surroundings, availability of toilets, library, health and sport facilities impact on school performance. However, some teachers share the view that, there are no enough facilities and equipment and even the few that are available are not properly utilized and maintained. The cluster mean of 2.62 and standard deviation 0.96 shows that quality school facilities impact on secondary school education for national transformation.

#### **Hypotheses Testing.**

**Hypothesis 1:** *Quality teachers do not significantly impact on secondary education for national transformation.*

**Table 1: Chi-square Test of the Impact of Quality Teachers on Secondary Schools for National Transformation**

Opinions	Observed frequency	Expected Frequency	df	X <sup>2-cal</sup>	X <sup>2-tab</sup>	Sig	Decision
No impact	47 (11.8%)	199 (50%)	1	98.56	3.84	0.0000	Significant
Impact	351 (88.2%)	199 (50%)					

$$(X^2 = 98.56, df = 1, p = 0.05 > 0.0000)$$

Table 1, showed the impact of quality secondary school teachers on national transformation. The result obtained from the analysis showed that the value of X<sup>2</sup> calculated (98.56) was greater than X<sup>2</sup> table (3.84) at 0.05 level of significance. Therefore, the null hypothesis was rejected. That is, there is a significant impact of quality secondary education teachers on national transformation.

**Research Hypothesis Two:** *Adequate funding does not significantly impact on secondary education for national transformation.*

**Table 2: Chi-square Test of the Impact of Adequate Funding of Secondary Schools for National Transformation.**

Opinions	Observed frequency	Expected Frequency	df	X <sup>2-cal</sup>	X <sup>2-tab</sup>	Sig	Decision
No impact	71 (17.8%)	199 (50%)	1	36.75	3.84	0.0000	Significant
Impact	327 (82.2%)	199 (50%)					

$$(X^2 = 36.75, df = 1, p = 0.05 > 0.0000)$$

Table 2, shows the impact of adequate funding of secondary school education on national transformation. The result obtained from the analysis showed that the value of X<sup>2</sup> calculated (36.75) was greater than X<sup>2</sup> table (3.84) at 0.05 level of significance. Therefore, the null hypothesis was rejected. That is, there is a significant impact of adequate funding secondary education teachers on national transformation.

**Research Hypothesis Three:** *Quality school facilities do not significantly impact on secondary education for national transformation.*

**Table 3: Chi-square Test of the Impact of Quality School Facilities on National Transformation.**

Opinions	Observed frequency	Expected Frequency	df	X <sup>2</sup>	X <sup>2-tab</sup>	Sig	Decision
No impact	134 (33.7%)	199 (50%)	1	11.504	3.84	0.0000	Significant
Impact	264 (66.3%)	199 (50%)					

$$(X^2 = 11.504, df = 1, p = 0.05 > 0.0000)$$

Table 3, showed the impact of quality secondary school facilities on national transformation. The result obtained from the analysis showed that the value of X<sup>2</sup> calculated (11.50) was greater than X<sup>2</sup> table (3.84) at 0.05 level of significance. Therefore, the null hypothesis was rejected. That is, there is a significant impact of quality secondary school facilities on national transformation.

#### Discussion of Findings.

The first finding of this study revealed that the quality of secondary school teachers has significant impact on national transformation. This finding is in line with Ali (2000) who reported that, in the school system or education, the most important instrument for quality assurance are the human resources or teachers for the effective management and control of quality in all spheres of the school system. Contributing to the above view, Peretomode and Peretomode (2001) are of the view that the provision of adequate or enough quality teachers can lead to the achievement of quality education and by implication, national transformation.

The second finding of this study revealed that adequate funding of secondary education significantly impact on national transformation. The result agrees with Akpakwu (2008) who posited that quality funding of educational institutions and programmes is one of the major aspects of school management and that funding can affect the overall performance of the school. He further stressed that adequate funding impact positively on the school learning and teaching process and the provision of all basic resources that the school requires.

The third finding of this study indicates that quality secondary school facilities significantly impact on national transformation. The finding is in agreement with the views of Ukeje (1996) who asserted that educational equipments or facilities are indispensable in the school, for they are the teachers' tools for quality education. Similarly, Okwechime and Ode (1991) reported that the right type of atmosphere required for effective learning is that consisting of better school buildings and better teaching

#### Conclusion

Based on the results of this study, it has been established that, quality teachers, adequate funding, and quality secondary education facilities significantly impact on national transformation.

## Recommendations

Based on the findings of the study, it was recommended as follows;

- a. That quality academic staff in terms of qualifications and experience should be recruited into secondary schools to provide quality services towards improving academic achievement.
- b. That adequate provision of funds be made for schools to provide quality educational services for quality management and national transformation, and
- c. That government should provide adequate facilities in secondary schools for effective management of secondary education for national transformation.

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