

**PERCEIVED INFLUENCE OF TOTAL QUALITY MANAGEMENT ON STUDENTS' ACADEMIC ACHIEVEMENT IN PUBLIC SENIOR SECONDARY SCHOOLS IN RIVERS STATE.**

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**ABSTRACT**

*The study investigated the perceived influence of total quality management on students' academic achievement in public senior secondary schools in Rivers State. The study shows that principals and teachers of public secondary schools in Rivers State are in consensus that ethical codes, staff training, teamwork, leadership, recognition and communication to a very high extent influences students' academic achievements in public schools. It was recommended that amongst others, there should be a high level of training and continuous improvement of personnel, team work and cooperation amongst management staff and students and teachers' communication and recognition should be accorded high training, and there should be also focus on ethics as the primary reason for the existence of school by teachers. Teachers'/staff motivation should be made to play vital role on students' educational needs. Therefore, educational institutions should establish a reliable and fast customer feedback mechanism, finally, there should be supportive leadership by the management and the government.*

***Keywords: Total Quality, Students Academic, Achievement, Public Schools***

**INTRODUCTION**

Quality management ensures that managers are responsible for the quality of the organization. Traditionally, employees were accused of organizational problems. However, TQM believes that most quality issues are caused by management rather than by employees. According to Reid and Sanders (2007, p.56), "85% of quality problems are due to system problems, whereas only 15% of the problems can be attributed to the low performance of employees." "Leaders are responsible for transforming the organization through knowledge, personality and persuasive power" (Deming, 1996,p.211.). They should provide clear standards for work, methods of achieving them, and a stress-free work environment for employees (Deming, 1996), and lead the team effectively through a clear vision, goals, measurable goals and assessment methods (Burkhalter, 1996).

Lunenburg and Ornstein (2004) gave teachers the status of student leaders. In this way, teachers have to play the role of leaders. Teachers are the leaders of all mankind who are faced with the most important processes in human life: socialization, learning, personal development, and how to deal with the challenges of a changing world. As leaders, teachers need to offer their students fair and respectful treatment, providing a comfortable and pleasant environment where their skills and competences can be realized. They should encourage students to cooperate with each other (Stensaasen, 1995). On the other hand, teachers must lead the students. It is important for the school forces to have strong guidance from the principal. Almost every effective school's basic and causal feature is the vision, the head of energy and dedication, who directs employees and students towards better attitudes and higher performance (Horwitz, 2002).

The discovery and recognition of co-workers is an important job for the manager (Truksane, 2003). Both teams and individuals must be offered both proposals and achievements (Jamaa, 2010). This, in turn, increases self-esteem, and the other way round can lead to enormous changes in quality, productivity and efforts to encourage these tasks (Mariola, 2007). In fact, "an employee or team will do a better job if they feel their work is valued. In other words, pay and recognition systems that emphasize the achievement of quality objectives really motivate the workforce to participate

fully in quality improvement activities" (Marolia 2007; Padhi, 2010, p. 56). When teachers and students who meet management targets are recognised and rewarded, they are challenged to do even better, and others would join the team of better performers to be recognised and rewarded too.

In addition to these concerns is the lack of or poor implementation of total quality management in public secondary schools in our educational system (Ajayi & Oyeniyi, 2017). It has been noted that secondary schools in Rivers State has been suffering due to inadequate facilities for effective teaching and learning, lack of maintenance of existing ones, lack of commitment by principals, lack of teamwork, poor communication, inadequate funding, poor performance of students especially in external examination and this has resulted to many parents registering their wards in others states for good results. (Ejionueme.2015)

In spite of the importance of the good quality secondary education, much attention has not been paid to the administrators, heads, principals and the teachers in the service delivery of teaching-learning to the students and this has negatively affected the school outputs. (Amadi, 2013) According to Ibadin (2010), it is the problem of quality of the teachers in the school organisation and how to get enough of qualified and experienced teachers for the fast growing system that have become very imperative in this work. Furthermore, It has also been observed that one of that greatest concerns of Nigerians has been the issue of the standard and quality of the education system because the development of any nation depends on the quality of its education hence conscious efforts are usually made to ensure educational quality at all levels. Therefore, the research seeks to investigate the perceived influence of total quality management (TQM) on students' academic achievement in public senior secondary schools in Rivers State with a view to enabling our school system look up for the better. The import of the study is that the result and recommendations if properly implemented will lead to total quality educational achievement in the school system.

### **Purpose of the Study**

The purpose of this study is to determine the perceived (by principals and teachers) influence of total quality management on students' academic achievement in public secondary schools in Rivers State.

### **The Meaning of Quality**

Igwe (1990) defined quality as a degree of excellence, a degree of conformity to standards and inherent or enduring good traits that make someone or something superior. Oakland (1995) defined it as fitness for a use or purpose. Arora (2008) defined it as conformance to specification or requirements. With special reference to education, Maduabum (2006) viewed quality in terms of "scale of inputs in the forms of funds, facilities, teachers, pupils and the like and to the fact that transactions and output of the institutions in form of their products, are acceptable, desirable, beneficial, efficient or effective from the point of view of the school proprietors – government, society private agencies, the clients, parents and other stakeholders."

Therefore, it could be deduced from the definitions that when a product or service has fitness for the purpose of which it was made such product or service will be said to have quality or that such a person, item or product is of good quality. Sallis (2002) saw quality as equalling customer satisfaction. If a school system works to produce students of high performance and achievement, who meet the demand and specifications of education and society, such students are said to be of high quality and their school is also to be a quality school. For any product, or service to be pronounced quality product, it must meet or exceed the needs of the customers or clients, present and future including the general public.

Thus, the quality of education in the training process is an assessment, which improves the need for the process of acquiring and developing the necessary skills for the students (students) of the process and at the same time fulfilling the responsibility and standards established by the clients (public). Who pays for the process or outcomes of educational products (Hoy, 2000). According to this definition, the key to the quality of education is to develop students' talents with value, to be responsible for the standards of responsibility and to give value for the money they pay.

Grisay and Mahlck (1991) also agreed with the view that assessment of the quality of the education system requires an analysis in particular. (a) the extent to which the product, service or educational outcomes provided students with the knowledge, skills and values they have acquired and meet the standards set out in the objectives of education and the system. (b) The extent where skills, knowledge values achieved are relevant to environmental and human needs and conditions.

In the last two definitions, the focus is on standards, but it does not make them exhaustive because there is no guarantee that they are worth first. Standards strive to relate to the needs of rapidly changing clients (students). In this way, the definition of the quality of education is difficult to understand and change. Goddard and Leask (1992) stated that "the place of customers (customers) in the definition of quality is that quality simply meets the customer's requirement. There are different clients for education, including parents, governments, students, employers and higher education institutions looking for different quality indicators."

### **DEMING'S Total Quality Management Principles as Applied to Secondary Schools**

Deming's fourteen (14) principles and TQM are "based on the assumption that people want to do their best and that it is management's job to enable them to do so by constantly improving the system in which they work Fred" (2010). The framework for transforming secondary school system using Deming's (14) fourteen Principles are as follows:-

1. "Create evidence of the purpose of improving products and services. The purpose of the school system should be clear and shared with all stakeholders (school board members), administrators, managers, teachers, support staff and the system, to improve the quality of education for all students. .
2. Adopting a New Philosophy: Applying Deming's second principle requires rethinking the mission and vision of the school with each one. Existing material methods can be replaced by new teaching and learning methods where each student's success is the primary goal or concern."
3. Stop supporting quality control. To solve a problem, it always costs more than avoiding it. Addiction to healing should be avoided.
4. Complete a price-only business practice. Schools need to move towards and rely on a single provider over a period of time based on the quality and reliability of their products, not just the price (cost of goods and services).
5. Continuously and forever improve all activities of the organization to improve quality and productivity. Deming focuses on the teaching and learning process at the heart of efforts to improve education. The best strategies should be tried, evaluated and refined as needed. This means that all students need universal performance standards before they can move on to the next level.
6. Vocational training institution. Training of organizers, managers and teachers. Firstly, training in the new teaching and learning process. Secondly, new evaluation strategies should be trained, and thirdly, the principles of the new governance system. Vocational training should continue in secondary schools for all school leaders, teachers and other support staff.
7. Leading the Institute: In high schools, this means getting closer to everyone's learning goal. It also means closing the achievement gap for all sections of the population, moving towards excellence and equity.

8. Eliminate Fear: The basic premise of "TQM is that people want to do their best. Fear creates an insurmountable barrier to the improvement of any system. In schools, staff are often afraid to point out problems because they fear being blamed." School leaders at all levels should communicate better and staff recommendation should always be valued and rewarded.
9. Swap barriers between staff: In the classroom, this principle applies to interdisciplinary coaching, team building, and learning transfer. There must be full cooperation between the members of the school system to maximize overall quality.
10. Eliminate slogans, call-outs and goals that require zero impact and a new level of productivity. It hurts instead of inspiring the team. This creates an unfavorable relationship because many of the reasons for low quality and low productivity at school are due to the system, not the staff.
11. Eliminate the numerical quotas for personnel and management objectives. There are many practices in secondary education that limit our ability to take advantage of intrinsic motivation and mistakenly gain the benefits of external benefits.
12. Remove barriers that make people proud of their work, remove barriers that rob people of their right to drive.
13. The institute's rigorous education and retraining program for everyone. The Director General and staff must receive new training in new methods of school management. All school team stakeholders should understand that improving student achievement creates greater responsibility.
14. Make everyone in the organization work as a team to achieve transformation. The school board and principal must have a clear agenda for the quality, vision and mission of the school system. Quality and mission must be inscribed by every member of the school system or organization (ie board members, administrators and managers, teachers and other support staff). Transformation is everyone's task or responsibility. In the secondary school setting, the principal is the leader that directs the teachers who in turn guides the students in their academic pursuit. By this there is a transformation or continuous process of the whole system geared towards students academic achievement in their external examinations and better outputs.

Generally, speaking, these ideas of Total Quality Management by the Quality Theorist (Deemings) can be grouped into five (5) components which are (i) Student Services, (ii) Physical Environment and Resources, (iii) Human Resources, (iv) Processes and (v) Product (output). According to Deeming, 1986.p.78), Total quality management has been identified as one of the best tools for effective achievement of educational goals and objectives. However, it has widely been used in school organization. Even those schools that adopted a complete quality management framework, insufficient and trained human resources, lack of leadership, a consistent understanding of quality as a program as a culture of continuous improvement. So, how to implement effective overall quality management provision is a solution to these problems by ensuring a quality culture where every member of the school system or organization is an important factor. Juran's "rule of thumb" (Sallis, 1993) said that "85% of an organisation's quality problems lies with management as they have control over the system of the organization".

Total quality management is a system-based approach that ensures that all operations required to design, develop, and implement a product or service are efficient and effective with respect to the system and its operation (Deeming, 1986). "Total quality management (TQM) evolved from many different management practices and improvement processes. TQM is not specific to managing people, rather is related to improving the quality for goods and services that are produced in order to satisfy customer/client demands." "TQM permeates the entire organisation as it is being implemented. TQM has its roots in the quality movement that made Japan such a strong economic

force in the world. The Japanese philosophy of quality initially emphasized product and performance and only later shifted concern to customer satisfaction" (Sergesketter, 1993).

### **TQM Installation and Implementation**

Earlier on, the TQM concept, principles, tenets and its paradigm shift have been discussed. We shall now look at how TQM is installed. As Ahiauzu (1999) reported, many firms have experienced less than positive results in the operation of TQM, and decided to abandon it. This is due largely to poor implementation. To prevent this ugly trend, a performance of two complementary functions has to be made. First of all, the TQM culture has to be adequately communicated to the extent that all organizational members have an opportunity to appreciate and hear the concept. All information dissemination mechanisms such as meetings, posters, newsletters etc. are to be channelled to convey the importance that management attaches to TQM. Secondly, the TQM programme should be meticulously installed and implemented. Macdonald (1995) stated that this is usually not a simple process because it involves more than a simple, precisely defined methodology or series of neatly tabled sequential steps or actions. Changing people's behaviour according to him can never be that simple. So, it is important that for TQM to be successfully installed and implemented, managers should not ignore the capacity of the workforce to frustrate any change initiative that is outside their frame and therefore work towards gradually aligning new practices to the existing ones. This explains why Regar et al (1994) suggested that TQM implementation requires metamorphosis.

**TQM Installation:** Ahiauzu (1999) identified some programmes for TQM installation. These include (1) drawing up the corporate quality policy, (2) setting-up quality improvement teams or quality circles, sites TQM steering committee and quality council, (3) behaviour modification function which requires the reframing thinking pattern of employees.

- i. **TQM Sustenance:** "To sustain the TQM system in the organization, there is the need to develop staff through continuous quality training and self-development and motivate workers through intrinsic measures including the improvement of reward systems." Also management should develop commitment in organizational members through the activities of TQM co-ordinators, quality bulletins and newsletters to update workers on development and progress made.

It is important to finally state that TOM installation and implementation requires defining the mission and identifying specific objectives. To do this it will be also important to identify the customer and determine the activities required to fulfil those objectives.

### **Purpose of Secondary Education in Nigeria**

"Secondary education is provided for children after primary education, that is before tertiary education, It is aimed at developing a child better than the primary schools level because it is obvious that primary education is insufficient for the children to acquire literary, numeracy and communication skills" (Ige, 2011). This kind of education is provided in secondary schools, which may be private or governmental (state or federal) or divided into two stages:-

#### **(i) Junior Secondary school (JSS)**

These are the first three years of secondary education. At this stage, the curriculum is both professional and academic. The main topics are English, mathematics and the important Nigerian language except environment, basic sciences, social sciences, citizenship education and basic technology. The minimum number of children with a syllabus in subjects including English and Mathematics passes through secondary education, where they receive an additional three years of training. This is in line with the 6.3.3.4 system of education in Nigeria (National Policy on Education (2004) revised).

ii. **Senior Secondary School (SSS)**

This is the next three years after junior secondary phase. It has a wider scope than the junior secondary schools (JSS) phase and aims at broadening the knowledge and skills of a student beyond the JSS level and thus prepared him/her for further education. Finally, a student has to offer a minimum of eight (8) and a maximum of nine (9) subjects comprising the six core subjects a major Nigerian language, one science, arts, and a conventional subject. One or two other electives are to be selected from the Arts, Science, Technical, Social Sciences and Vocational subjects. Certification at the end of this phase depends on the performance of Senior School Certificate examination (SSCE) co-ordinated by the West African Examination Council (WAEC) and National Examination Council (NECO). A child must obtain a minimum of five credits at not more than two sittings including English language and mathematics to be able to proceed to the tertiary level of the educational system (Ngwu, 2008). Not many definitions abound on the meaning of Academic Achievement. A notable definition among the few existing ones is that given by Kinanee (2001). Drawing from the work of Aiken (1929), he defined academic achievement as the display of knowledge, skill, or accomplishment in an area of endeavour. It is the degree of success or accomplishment in a given area of training or study. Our operational definition given earlier indicates that academic achievement refers to inherent potentials within the individual which is displayed as knowledge attained or skills developed. According to Adediwura et al (2007), "Academic Achievement could be defined as the display of knowledge attained or skills developed in subjects designated by test and examination scores or marks assigned by the subjects' teachers." It is an expression of the student's scholastic standing the inherent potentials which in most cases combine with other sociological factors. Academic achievement in schools is usually measured by behaviour, which measures the extent of learning that has taken place within a given period of training.

Academic achievement can best be appreciated when discussed in relation to such phenomena as academic failure, under achievement and poor academic performance. Academic failure according to Uwakwe et al (2000) referred to the performance that falls below a specified standard. In a similar vein, Kinanee (2001) described under-achievement as that which occurs when a student's grade or test scores are markedly below measured or demonstrated aptitude for academic achievement. An under-achiever is therefore one that falls short of his measured Intelligence Quotient. This is similar to a poor academic performer as this also describes one who falls below a desired academic standard (Uwakwe, 2000).

**Review of Empirical Studies**

Efue (2005) in her research titled Total Quality Management and students Academic Performance in Federal Post Primary Institutions in Rivers and Bayelsa State found out that principals in Federal Secondary Schools were moderate in their application of TQM; Federal post-primary institutions are moderately affected by factors inhibiting effective application of TQM in the school administration. Kaegon (2008) in her study, she adopted a descriptive survey design using stratified random sampling technique. Her subjects consisted of a sample population of one hundred principals and six hundred and eighty-three teachers from both public and approved private secondary schools in Rivers State, representing 25% of the population. Data from this research was analysed using mean rank order and z-test and below are some of the findings:

- (1) School principals in both public and private secondary schools are aware of the principles of TQM, however the principals in the private schools are more aware than their those in the public schools.
- (2) More principals in private secondary schools than in the public ones are already applying TQM principles.
- (3) Some principals' hindrances in the application of TQM include lack of awareness and information of the concept, employees' resistance to change, poor funding, lack of

resources, poor communication across boards, inadequate training programmes, supervision, inefficient and ineffective leadership and employees' lack of commitment.

Tribus (1990) study titled "the Application of Quality Management Principles in Education at Mt. Edge High School, Alaska", applied Edwards Demings Total Quality Management concepts, using 210 students and 13 teachers. Findings showed that the application made the students more effective with their studies and also lowered discipline problems significantly.

Okoro (2005) in his study titled; "Application of Total Quality Management in Secondary School Administration in Delta State", used descriptive survey design on a sample size of 115 principals and 845 teachers from public secondary schools and 75 principal and 245 teachers from private secondary schools. The data was analyzed using Pearson Correlative Coefficient.

His findings included:

- (1) There is moderate application of TQM in the secondary schools administration. This was confirmed by the aggregate mean of 3.11 for teachers and 3.09 for principals.
- (2) School administrations moderately apply TQM in all the system, tasks. Principals and teachers have inhibitions on the application of total quality management in secondary schools. Such
- (3) Social values as; societal value system, poor attitude and preparedness of students, inadequate teachers and their preparation.
- (4) There is moderate performance of school administrators in meeting the objectives of setting schools up.
- (5) There is no significant difference between public and private secondary schools in the assessment of the extent of physical facilities provision to the secondary schools. The result, according to Okoro (2005:159), shows that such physical facilities as laboratories, furniture, classrooms, staffrooms, libraries etc are grossly inadequate.
- (6) Such subjects as; vocational and technical subjects are grossly neglected due to lack of manpower resources while others like Social Studies, Science, Mathematics, English Language Arts are moderately inadequately provided for.

Following the above findings, the researcher recommended that; suitably qualified and sufficient number of teachers be made available by government.

Nwogu (2005) carried out a research on "Application of Quality circle Management Techniques in Administration of Secondary Schools in Rivers State" using descriptive survey to identify the features, methods, approaches, techniques and the way managements accept recommendation in secondary schools in Rivers State using representative sample of the population.

### **Educational Implications of the Findings**

The philosophy of Total Quality management involves certain fundamental changes which will impact the entire school system, and thus requires time and perseverance. The introduction of TQM tenets in public educational institutions also requires changes in person — job relationships. The conclusions reached above are a pointer to the fact that high academic performance by students of secondary educational institutions in Rivers State is very possible, but to a very long extent depends on a number of variables which include: the focus of teachers' on ethical conduct students, continuous training and improvement, teamwork, teachers' recognition, effective communication and supportive leadership.

As observed in the findings of this study, students' can perform poorly academically unless they are given full attention by the teachers' who interact with them daily. Except the students who are very active participants in the teaching/learning process are considered as the major reason for the existence of the school in the first place, and their views seen as important in the administration of the school, some processes may not be well understood to be improved upon. The needs of the students must be the focal point of all activities and as much as possible, teachers should work to determine the needs of the students as defined by the students themselves and consciously work towards meeting these needs. The implication here is that the extent to which the academic needs

of the students are understood and appreciated depends on the level to which they will perform. Therefore, policies within the schools should be directed primarily at the academic improvement of the students, importance attached to their views, and their contributions in class used to help them improve. When students' needs such as an enabling learning environment become a primary focus of school's administration, they are given the treatment of importance as an integral part of the school's existence. Satisfied students will work towards achieving the objectives of educational institutions.

To a large extent also, the incremental and innovative improvements of processes, products and services has a bearing on the level of students' performance. School authorities that do not take into consideration the fact that there is always a better way of undertaking work procedures will not be conscious of eliminating waste, rework and unnecessary complexity. This lack will therefore stand as a barrier for competitiveness and innovation. Since change is constant, school authority must emphasize continuous improvement in the academic programmes of the school, constantly enhance the facilities of the school for quality academic outcomes, consciously and significantly improve the training offered in the schools and introduce increased measures to accommodate change in training methods and teachers performances are improved by constant retraining, there will be a positive impact on students' performance because it is all about growth, and in this instance, positive academic growth.

## **CONCLUSION**

Total Quality Management recognizes that education system has little value if contents are not student centred. Therefore, quality education system must be able to develop and attend to the needs of students and the teachers. Colleges and universities have begun implementing total quality management beyond the administrative, service, and non-academic units of their institutions. And some higher education institutions who have ventured with total quality management into their academic units are primarily still in the planning stages. However, the study's content scope or variables were discussed extensively; these are outlined as follows; teachers' ethical code, staff training: teamwork: motivation, leadership communication.

## **RECOMMENDATIONS**

Based on the findings, the following were recommended were drawing from the research findings reported in chapter four of this work, the following recommendations are made as follows;

- 1) Teachers' ethical codes and co-operation within the school community among management, staff and students are highly recommended. It gives students opportunities to work on their academic efficiencies in an environment void of strife. The harmony in the work environment produces the desire to perform maximally.
- 2) Staff training enhanced school productivity. Hence, in-service training, forums, seminars, workshops, conferences should be given top priority by the schools' board and ministry of education via the government.
- 3) Teachers/staff motivation should be made plays vital role to focus on students' educational need. Motivated teachers can perform better than non-motivated ones; by these incentives are effective implementation of minimum wage, prompt payment of salary, promotion, provision of imprest and other fringe benefits associated with the teaching profession

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