

Application of Total Quality Management (TQM) in Secondary School Administration in Umuahia Education Zone

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ABSTRACT

The study was conducted to investigate the application of Total Quality Management (TQM) in secondary school administration in Umuahia Education Zone. Three research questions and one null hypothesis guided the study. Descriptive survey design was employed for the study. The population of the study comprised 1365 administrators. Multi stage sampling techniques was used to select 358 respondents, comprising of 53 principals 53 vice principals and 252 teachers from the four Local Government Areas in the Education zone. A self-developed instrument by the researchers titled Questionnaire on Application of Total Quality Management in Secondary School Administration (QATQMSSA) was used for data collection. To ensure the validity of the instrument, the instrument was face validated by three experts, from the University of Nigeria, Nsukka. The data generated from the trial testing were analyzed using Cronbach Alpha statistics and the overall reliability index of 0.76 was obtained. Mean and Standard Deviation were used to answer the research questions while the null hypothesis was tested using ANOVA at 0.05 level of significance. Findings of the study revealed that total commitment and teamwork is applied to a high extent in secondary school administration. The findings further showed that to a little extent, effective communication is applied in secondary school administration in Umuahia Education zone. This is to say that TQM is applied to a little extent in secondary school administration. Based on the findings, some recommendations were made which include: that the Ministry of Education should organize seminars, workshops and conferences for teachers where TQM attributes will be discussed for effective communication and that Principals should be fully committed to every activity of Total Quality Management for effective school administration, especially in Umuahia Education zone.

1. INTRODUCTION

Background of the Study

One of the greatest concerns of Nigerians has been the issue of the standard and quality of the educational system. 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. This explains why uniform educational standard in the Federal Republic of Nigeria (2004) was established and the various measures being taken by the federal government to ensure quality in the educational system. The establishment of specific bodies to control quality in the various levels of education is a clear indication of the commitment of the federal government to assure quality. Some of these bodies include: The National Primary Education Commission (NPEC), the National Board for Technical Education (NBTE), the National Commission for Colleges of Education (NCCE) and the National Universities Commission (NUC). Effective achievement of the quality standard being envisaged is possible if Total Quality Management (TQM) is applied, especially in the administration of secondary schools.

TQM is a management philosophy and practice that aims at harnessing the human and material resources of any organization in the most effective way to achieve the organizational objectives. Many institutions are conducting organizational development programmes like seminars, workshops and conferences to enhance quality awareness and change the attitude of their employees towards TQM. More recently, educational administrators have recognized the potentials of Total Quality Management (TQM) in educational management. Total Quality Management is the cultivation and practice of quality in every person's tasks and activities through which the school system focuses on continuous improvement of all operations in the task areas.

Total quality management could be seen as an administrative technique. According to Ojo (2006), it is a management style that is quality centered; customer- focused, facts-based, team-driven and seminar-led which aim at providing satisfaction to the realization of organizational objectives. Total quality Management is a systematic approach to education reform (Deming, 2004). This philosophy also provides a framework that can integrate many positive developments in education, such as teamwork, site-based management, cooperative learning and outcomes-based education. TQM emphasizes teacher competence, creativity, commitment,

teamwork, effective communication, and how educational administrators are expected to lead in order to realize the full potentials of all personnel in the educational organization (Okorie and Uche, 2004). Its application to the education sector was propelled by the fact that educating people was viewed the same as the business of producing goods and services in an economy (Nicklin, 2001). If educational administrators could realize that failure in education is a problem and a waste to the nation, quality management may be regarded as an ideal process for making a change in the education system (Gertsen, 2001).

Improving quality is probably one of the most important tasks any organization may be facing, whether private or public. Educational institutions are not foreign to this reality; on the contrary, they have also recognized the need to pursue this quest for quality and to deliver it to pupils and students alike. When talking about sources of quality education the following can be listed: teachers' commitment, effective leadership, adequate resources and application of the latest technology and appropriate curriculum, excellent examination results and the support of parents (Sallis, 2002). For the last 20 years, different economic circumstances have pushed education systems in many countries towards a system of privatization, transforming education into a new market and adapting education to the current demands of labour markets (Hirtt, 2004), including application of TQM in schools administration. TQM is a quest for quality at all times. Total Quality Management (TQM) is applicable both in the industry and in education because both deal with the quality of people. It is therefore, not strange to talk of application of TQM in secondary school administration. TQM approaches in school administration were established to improve quality leadership and teachers' response to goals and to maximize quality (Kezner, 2006). And for effective TQM application, schools need to adapt to ongoing change as needs arise because change is inevitable. Onuka (2003) stated that TQM has the following five major components: Total commitment to quality (effective leadership); total commitment to students' satisfaction; total commitment to continuous quality improvement (always striving for programme improvement), total commitment to effective communication, and teamwork. This study will however concentrate on three of these components namely; total commitment, teamwork and effective communication.

Total commitment (effective leadership) is considered very important as both the leader and the subordinates are made to show total commitment to the organizational vision and mission. In the application of TQM, school principals are expected to maintain their role as facilitators and embrace all staff, professional and ancillary as partners in achieving a common goal. Maxwell (1998) indicated that effective leaders have to maintain an attitude of sacrifice in order to turn around an organization. In order to build an effective school administration, principals (leaders) are expected to become agents of change in order to improve quality. In applying TQM, principals become committed in creating the goals, values and systems that guide the pursuit of continuous performance and improvement as leaders. The foundation of an effective TQM application is commitment. Lack of administrators' commitment is one of the reasons for the failure of TQM efforts (Brown, Hitchcock, and Willard, 1994). Mann and Kehoe (1994) stated that principal's support for quality is a key factor in quality improvement. In the application of TQM all educational administrators are committed to quality, they are not only actively involved in quality management and improvement process, but also strongly encourage teachers' involvement in quality management and improvement process. In addition, they learn quality-related concepts and skills, and arrange adequate resources for teachers' training and education. The application of total commitment in secondary school administration improves teaching and learning as well as the school administration, and satisfies the stakeholders (students, teachers and parents) and also motivates and encourages effective staff participation and good organizational results. This is to say that total commitment is necessary in secondary school administration for effectiveness. The study investigated the extent school principals apply total commitment in school administration.

Teamwork can be defined as activities of small groups of interdependent individuals that take responsibility for their organizational outcomes (Wineman and Serrato, 1998). The advantages of successful teams and teamwork are considerable. Teamwork practices place overall accountability for quality on the team, thus alleviating the potential for individual blame, and allowing greater sharing of information and cooperation within the work group to improve its functions continuously (Coyle-Shapiro, 1995). Teams and teamwork can be used to minimize the duplication of efforts. Working in teams can be instrumental in teachers developing comprehensive and in-depth views of educational issues and situations through the pooling of knowledge. Positive synergy resulting from good teamwork can be an important ingredient in maximizing the contributions of individual staff members (Murphy and Herberling, 2005). It is believed that well-implemented teamwork contributes to success. Principals that apply teamwork involve their staff in a well-designed team context, lead individuals to be more involved in their work, enable them to generate more constructive ideas and suggestions, and be more supportive of their teammates. They involve the teachers in doing the things that are required for an educational program to be successful. In many educational institutions, teams have been developed as the basic

unit for curriculum delivery. Teamwork provides educational institutions with a strong platform on which to build a TQM culture.

Application of teamwork can include designed training program that prepares individual to work effectively in a team environment, efficiently employ team productivity techniques such as team goal setting and team problem solving, and develop interpersonal skills and conflict management techniques necessary for teams to function well (Cohen and Bailey, 1997). Dimitriadis, (2000) observed that the concept of teams and teamwork is of central importance to quality management in schools. Principals are expected to encourage the teachers to work in team to promote continuous improvement and effective communication. This study ascertained the extent to which teamwork is applied in secondary school administration in Umuahia Education zone.

Communication is defined as transmitting of information from one person to another. It is also a process of sharing and exchanging of ideas, feelings, information, and thoughts (Oboegbulem, and Onwurah, 2011). Apart from the need for effective communication and co-ordination in the management structure and process, the basic functions of education, rely almost on communication among teachers and students and co-ordination among various institutional structures and levels. In any institution where there is effective communication, there will be understanding among staff, harmony in work operation, good inter-personal relationship and easy realization of common objectives and goals. In the application of effective communication, principals are expected to establish and encourage good interpersonal relationship among the staff, that is, principals and teachers, students and principals, teachers and students so as to maintain a continuous improvement in the quest for quality education. The principals are expected to apply effective communication to a very great extent in order to achieve the secondary educational objectives. This study looked at the extent to which effective communication is being applied in secondary school administration.

The principal is the person on whose shoulders rest the entire administration, success or failure of the school. The principal identifies and set goals and objectives of the school, which of course, must be in line with the national objectives. The principal analyses tasks and shares responsibilities to the staff according to specialization and expertise (Uyanga, 2007). Principals are the chief executives in secondary schools; they are in charge of school administration. They are also referred to as educational administrators. Administration is a process of getting things done through the effort of others by coordinating, planning, stimulating, directing and supervising their activities. Principals as administrators, get things done through the help of vice principals and teachers. Vice principals' act as principals in the absence of the principals by supervising teachers and also carry out other administrative functions. The teachers are used to achieve the educational goals. One cannot apply TQM principles in secondary school administration in isolation of vice principal and teachers. It is based on this that the researchers used principals, vice principals and teachers for the study.

Educational institution is one of the organizations which functions depend on effective communication among stakeholders. Apart from the need for effective communication in the co-ordination of activities in the management process, the basic functions of education rely almost on communication among teachers and students and in the co-ordination of various school organizational structures and levels. In any school where there is effective communication, there will be understanding among staff, harmony in work operations, good inter-personal relations and easy realization of common objectives and goals. Where there is lack of effective communication there will be chaos, anarchy, and overlap of function which may cause confusion and wastage of human and material resources (Oboegbulem and Onwurah (2011). Poor communication and understanding have been largely responsible for the state of students' unrest and poor administration in many educational institutions in the recent past (Aiyepoku, 2000). Studies conducted by Bue (2011) and Akhtar (2007) stressed on the need for proper implementation of TQM ideals in schools for continuous quality improvement. According to literature many work has been carried out on TQM but no work known to the researcher addressed application of Total Quality management in Secondary school Administration. It is based on this that the researchers decide to fill this lacuna.

1.1 Statement of the Problem

It is observed that secondary schools in Umuahia Education zone over the years have 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 method, lack of adequate funding, poor performance of students especially in external examinations and this has resulted to many parents registering their wards in other states for good results. However, one possible way of improving this quality of education lies in the application of the ideals of Total Quality Management (TQM) in secondary school administration. The question is: to what extent are principals applying TQM in secondary school administration in Umuahia Education zone?

1.2 Purpose of the Study

The purpose of the study was to investigate the application of Total Quality Management in secondary schools administration in Umuahia Education zone. Specifically the study was guided by the following objectives:

1. To find out the extent to which total commitment is being applied in secondary school administration in Umuahia Education zone.
2. To determine the extent to which teamwork is being applied in secondary school administration in Umuahia Education zone.
3. To ascertain the extent to which effective communication is being applied in secondary school administration in Umuahia Education zone.

2. Theoretical and Conceptual Framework

This study has both theoretical and practical significance. The theoretical significance of this study hinges on Statistical Quality Control (SQC) theory. The Statistical Quality Control theory is propounded by Walter Shewhart in the 1990s. The theory emphasizes on organizational effectiveness, and it states that for continuous improvement of quality and productivity that statistics will be used to identify areas of improvement. The findings of the study will either lend credence to the SQC theory or cast doubt on the applicability of the theory in school administration for the achievement of educational goals. Practically, the findings of the study will be of benefit to the government, educational administrators and planners, researchers and the society at large.

2. Research Questions

1. To what extent is total commitment being applied in secondary school administration in Umuahia Education zone?
2. To what extent is teamwork being applied in secondary school administration in Umuahia Education zone?
3. To what extent is effective communication being applied in secondary school administration in Umuahia Education zone?

Hypothesis

H₀₁: There is no significant difference between the mean ratings of principals, vice principals and teachers on the extent of application of total quality management in secondary school administration in Umuahia Education Zone.

3. Research Method

Design of the Study:

The study adopted descriptive survey design to investigate the application of TQM in secondary school administration in Umuahia Education zone. The study was carried out in Umuahia Education Zone of Abia State. The total population of the study was 1365 subjects from the four Local Government areas in the zone which made up of 53 principals, 53 vice principals and 1259 teachers in all the 53 secondary schools in Umuahia Education Zone of Abia state. (Source: Planning, Research and Statistics (PRS) Unit Secondary Education Management Board, (SEMB) Umuahia, 2014).

The sample for the study was 358 respondents drawn from the 53 secondary schools in Umuahia Education zone. This is made up of 53 principals, 53 vice principals and 252 teachers drawn from the 1259 teachers from the 53 secondary schools in the zone which represent 20% of the teachers from all the schools in the zone. The sample was drawn using multi-stage sampling techniques.

Questionnaire was used for data collection. The questionnaire was titled "Questionnaire on Application of Total Quality Management in secondary School Administration (QATQMSSA). The instrument was developed by the researchers from the literature related to the study. The questionnaire consist of two sections, A and B. Section A elicited information on the personal data of the respondents while section B elicited information on the extent to which TQM is being applied in secondary school administration. The instrument was built on a four point rating scale: Very High Extent (VHE), High Extent (HE), Little Extent (LE) and Very little Extent (VLE) which were weighted 4,3,2, and 1 respectively. The instrument was designed in three clusters. Cluster A has 9 items which were used to elicit information on the extent to which total commitment is being applied in secondary school administration, cluster B has 6 items which elicited information on the extent to which teamwork is being applied in schools administration; while cluster C has 9 items which were used to elicit information on the extent to which effective communication is being applied in secondary school administration.

The instrument was face validated by three experts, one from Measurement and Evaluation unit and two from Educational Administration and Planning unit all in Faculty of Education, University of Nigeria, Nsukka. Based on the comments and suggestions of these experts some modifications were made which helped the researchers to produce the final instrument which was subjected to trial testing to ascertain the reliability of the instrument using Cronbach Alpha statistics. The result yielded as follows: Clusters A- 0.78, Cluster B- 0.62 and Cluster C- 0.77 which shows that the instrument was reliable enough for the study.

The Questionnaire was administered to the respondents in their schools with the help of two research assistants. These assistants were given instructions and orientation on the purpose of the study and how to distribute, collect and handle the retrieved copies of the questionnaire. The instrument was collected on the spot after completion.

The data collected were analyzed using descriptive and parametric statistics. Mean and standard deviation were used to answer the research Questions, the hypothesis was tested using ANOVA at 0.05 level of significance; In making decision, real limit of numbers were applied as follows 3.50 - 4.00 Very high extent, 2.50 - 3.49 High extent, 1.50 - 2.49 Little extent, 0.05 - 1.49 Very little extent respectively.

4. Results

The results of the study are presented on the tables below.

Research Question 1:

To what extent is total commitment being applied in secondary school administration in Umuahia Education Zone?

Table 1: Mean ratings and Standard Deviation of Principals, Vice principals and teachers on the extent total commitment is being applied in secondary schools administration

S/N	Items	Position	N	\bar{X}	SD	Dec	Total			
							N	\bar{X}	SD	Dec
1	Extent educational administrators actively participate in quality management	Principals	53	3.49	0.58	HE	358	2.95	0.56	HE
		Vice Principals	53	3.18	4.44	HE				
		Teachers	2	2.79	0.49	HE				
2	Extent principals encourage teachers to be involved in quality improvement activities	Principals	53	3.49	0.58	HE	358	3.03	0.57	HE
		Vice Principals	53	2.89	0.51	HE				
		Teachers	252	2.96	0.54	HE				
3	Extent principals visit the teachers in their homes.	Principals	53	1.56	0.97	LE	358	1.49	0.75	VLE
		Vice Principals	53	1.38	0.74	VLE				
		Teachers	252	1.50	0.71	LE				
4	To what extent principals provide the necessary leadership that motivates both teaching and non-teaching staff in the quality improvement process	Principals	53	2.74	1.13	HE	358	2.19	.87	LE
		Vice Principals	53	2.34	0.68	LE				
		Teachers	252	2.05	0.79	LE				
5	To what extent are principals involving the teachers in decision making towards continuous improvement approaches.	Principals	53	2.79	0.72	HE	358	2.35	0.75	LE
		Vice Principals	53	2.56	0.57	HE				
		Teachers	252	2.21	0.74	LE				
6	To what extent are principals empowering teachers to make them effective and efficient.	Principals	53	2.26	0.94	LE	358	2.17	0.70	LE
		Vice Principals	53	2.17	0.47	LE				
		Teachers	252	2.15	0.68	LE				
7	To what extent do empowering of teachers help in achieving school objectives	Principals	53	3.36	0.56	HE	358	2.97	0.68	HE
		Vice Principals	53	2.88	0.61	HE				
		Teachers	252	2.90	0.70	HE				
8	To what extent are teachers committed to their work so as to promote quality management	Principals	53	3.19	0.52	HE	358	2.92	0.56	HE
		Vice Principals	53	3.03	0.39	HE				
		Teachers	252	2.85	0.58	HE				
9	To what extent are teacherempowered towards acquisition of skillsand competence	Principals	53	2.45	1.03	LE	358	2.39	0.79	LE
		Vice Principals	53	2.13	0.76	LE				
		Teachers	252	2.43	0.74	LE				
Cluster Mean		Principals	53	2.82	0.54	HE	358	2.50	0.41	HE
		Vice Principals	53	2.51	0.27	HE				
		Teachers	252	2.43	0.37	LE				

Key: N = Number of respondents, \bar{x} = mean, SD = Standard Deviation, Dec. = Decision, VLE = Very Little Extent, HE = High Extent, LE = Little Extent

Table 1 presents the mean and standard deviations of responses of principals, vice principals and teachers on the extent total commitment is applied in secondary school administration in Umuahia Education zone of Abia state. Based on the result on Table 1, items 1, 2, 7 and 8 had total mean scores of 2.95, 3.03, 2.97 and 2.92 with standard deviations of 0.56, 0.57, 0.68 and 0.56 respectively. These mean scores are above the criterion level of 2.50. This implies that to a high extent; educational administrators actively engaged in quality management; encourage teachers to be involved in quality improvement activities; empower teachers to help in achieving school objectives, and that teachers are committed to their work to promote quality management. Items 4, 5, 6 and 9 had total mean scores of 2.19, 2.35, 2.17 and 2.39 with standard deviations of 0.89, 0.75, 0.70 and 0.79 respectively. These show that, to a little extent, principals provide the necessary leadership that motivates both teaching and non-teaching staff in the quality process; to a little extent, principals do involve teachers in decision making towards continuous improvement approaches; to a little extent principals do empower teachers to make them effective and efficient, and that to a little extent teachers are empowered towards acquisition of skills and competence. Item 3 showed that principals to a very little extent do visit the teachers in their homes. The cluster mean of 2.50 with a standard deviation of 0.41 showed that to a high extent, total commitment is applied in secondary school administration in Umuahia Education zone since the mean value is up to the 2.50 set as benchmark.

Research Question Two:

To what extent is team work being applied in secondary school administration in Umuahia Education zone?

Table 2: Mean ratings and Standard Deviation of Principals, Vice principals and teachers on the extent team work is being applied in secondary schools administration

S/N	Item statement	Position	N	\bar{x}	SD	Dec	Total			
							N	\bar{x}	SD	Dec
10	To what extent do principals encourage teamwork by defining the school mission and vision.	Principals	53	2.67	1.01	HE	358	2.61	0.77	HE
		Vice Principals	53	2.88	0.77	HE				
		Teachers	252	2.54	0.69	HE				
11	To what extent are principals allowing teachers to share their ideas and knowledge.	Principals	53	2.55	0.77	HE	358	2.80	0.61	HE
		Vice Principals	53	2.91	0.40	HE				
		Teachers	252	2.83	0.59	HE				
12	To what extent are principals encouraging staff relationship	Principals	53	2.77	0.99	HE	358	2.88	0.66	HE
		Vice Principals	53	3.09	0.49	HE				
		Teachers	252	2.86	0.59	HE				
13	To what extent are principals encouraging teachers to work as a team	Principals	53	2.62	0.92	HE	358	2.56	0.68	HE
		Vice Principals	53	2.42	0.49	LE				
		Teachers	252	2.58	0.65	HE				
14	To what extent are principals using effective communication to promote teamwork	Principals	53	2.72	0.69	HE	358	2.58	0.62	HE
		Vice Principals	53	2.58	0.53	HE				
		Teachers	252	2.55	0.63	HE				
15	To what extent do principals motivate teachers to engender their total commitment to duties as a team.	Principals	53	2.37	0.81	LE	358	2.49	0.76	LE
		Vice Principals	53	2.62	0.77	HE				
		Teachers	252	2.48	0.75	LE				
Cluster Mean		Principals	53	2.62	0.79	HE	358	2.65	0.49	HE
		Vice Principals	53	2.75	0.39	HE				
		Teachers	252	2.64	0.41	HE				

Key: N = Number of respondents, \bar{x} = mean, SD = Standard Deviation, Dec. = Decision, HE = High Extent, LE = Little Extent

Table 2 presents the mean responses and standard deviations of principals, vice principals and teachers on the extent teamwork is applied in secondary school administration in Umuahia Education zone of Abiastate. Results on Table 2 show that, items 10, 11, 12, 13, and 14 have total mean scores of 2.61, 2.80, 2.88, 2.56 and 2.58 with standard deviations of 0.77, 0.61, 0.66, 0.68 and 0.62 respectively. These mean scores are above the 2.50 benchmark. This implies that, to a high extent, principals encourage team work by defining the school mission and vision; to a high extent teamwork allows teachers to share their ideas and knowledge; to a high extent teamwork encourages staff relationship; to a high extent, principals encourage teachers to work as a team;

and to a high extent principals encourage effective communication to promote teamwork. Item 15 with a total mean score of 2.49 and a standard deviation of 0.79 shows that principals to a little extent, motivate teachers to engender total commitment. The cluster mean of 2.65 with a standard deviation of 0.49 show that teamwork is applied to a high extent in secondary school administration in Umuahia Education zone of Abia state.

Research Question Three:

To what extent is effective communication applied in secondary school administration in Umuahia Education zone?

Table 3: Mean ratings and Standard Deviation of Principals, Vice principals and teachers on the extent effective communication is being applied in secondary schools administration

S/N	Item statement	Position	N	\bar{X}	SD	Dec	Total			
							N	\bar{X}	SD	Dec
16	To what extent do principals communicate various policies and plans to teaching and non-teaching staff.	Principals	53	3.13	0.71	HE	358	2.75	0.65	HE
		VicePrincipals	53	2.60	0.63	HE				
		Teachers	252	2.69	0.62	HE				
17	To what extent do principals exchange their ideas and knowledge with the teachers	Principals	53	2.55	0.69	HE	358	2.44	0.63	LE
		Vice	53	2.47	0.58	LE				
		Principals Teachers	252	2.41	0.62	LE				
18	To what extent do principals communicate a detailed quality goal to teachers	Principals	53	2.71	0.53	HE	358	2.53	0.58	HE
		Vice	53	2.42	0.63	LE				
		Principals Teachers	252	2.52	0.57	HE				
19	To what extent do principals encourage inter-personal communication between them and teachers for the improvement of quality in school administration	Principals	53	2.40	0.95	LE	358	2.37	0.74	LE
		Vice	53	2.34	0.65	LE				
		Principals Teachers	252	2.37	0.72	LE				
20	To what extent do principal accept information from every staff member	Principals	53	2.42	0.49	LE	358	2.22	0.61	LE
		Vice	53	2.03	0.71	LE				
		Principals Teachers	252	2.22	0.61	LE				
21	To what extent do principals encourage participation by everyone by calling for suggestions	Principals	53	2.55	0.91	HE	358	2.27	0.76	LE
		Vice	53	2.08	0.76	LE				
		Principals Teachers	252	2.23	0.70	LE				
22	To what extent are teachers' ideas being sought for better school administration	Principals	53	2.08	0.55	LE	358	2.17	0.58	LE
		Vice	53	2.15	0.53	LE				
		Principals Teachers	252	2.19	0.59	LE				
23	To what extent is information shared in the school among teachers and principal	Principals	53	2.64	0.56	HE	358	2.34	0.69	LE
		Vice	53	2.32	0.67	LE				
		Principals Teachers	252	2.29	0.71	LE				
24	To what extent is information from teachers is used for continuous improvement.	Principals	53	2.03	0.27	LE	358	2.31	0.58	LE
		Vice	53	2.62	0.63	HE				
		Principals Teachers	252	2.29	0.58	LE				
Cluster Mean		Principals	53	2.50	0.38	HE	358	2.38	0.43	LE
		Vice	53	2.34	0.42	LE				
		Principals Teachers	252	2.36	0.44	LE				

Key: N = Number of respondents, \bar{X} = mean, SD = Standard Deviation, Dec. = Decision, HE = High Extent, LE = Little Extent

Table 3 presents the mean and standard deviations of respondents on the extent effective communication is applied in secondary school administration in Umuahia Education zone of Abia state. Result showed that items 16 and 18 have mean scores of 2.75 and 2.53 with standard deviation of 0.65 and 0.58 respectively. These mean

scores are above the 2.50 benchmark. This implies that to a high extent, principals communicate various policies and plans to teaching and non-teaching staff and that principals communicate a detailed quality goal to teachers. However, items 17, 19, 20, 21, 22, 23 and 24 have means scores of 2.44, 2.37, 2.22, 2.27, 2.17, 2.34 and 2.31 with standard deviations of 0.63, 0.74, 0.61, 0.76, 0.58, 0.69 and 0.59 respectively. Since these mean scores are less than the 2.50 benchmark, it means that principals to a little extent, exchange ideas and knowledge with the teachers, to a little extent there is inter-personal communication between principals and teachers to improve quality in school administration; to a little extent, principals accept information from every staff member; to a little extent, principals encourage participation by calling for suggestions; to a little extent, teachers information is recognized; to a little extent, information is shared among teachers and principals; and that to a little extent, information from teachers is used for continuous improvement. The cluster mean of 2.38 with a standard deviation of 0.43 shows that to a little extent, effective communication is applied in secondary school administration in Umuahia Education zone since the mean value is less than the 2.50 benchmark.

Table 4

There is no significant difference between the mean ratings of principals vice principals and teachers on the extent of application of TQM in secondary school administration in Umuahia Education zone.

Table 4: ANOVA of the mean ratings of principals, vice principals and teachers on the extent of application of TQM in secondary school administration in Umuahia Education zone.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.940	2	3.470	15.883	.000
Within Groups	77.558	355	.218		
Total	84.498	357			

Result in table 4 is the ANOVA result of the difference between the mean ratings of principals, vice principals, and teachers on the extent of application of TQM in secondary school administration in Umuahia Education zone. Result show that an f-ratio of 15.88 was obtained with a probability value of 0.00. Since the probability value of 0.00 is less than 0.05 set as level of significance, it means that the null hypothesis which stated that there is no significant difference between the mean ratings of principals, vice principals and teachers on the extent of application of TQM in secondary school administration in Umuahia Education zone is rejected. This means that there is a significant difference between the mean ratings of principals, vice principals, and teachers on the extent of application of TQM in secondary school administration in Umuahia Education zone.

5. Discussion of Findings

Research question one sought to find out the extent total commitment is being applied in secondary school administration in Umuahia Education zone. The result showed that to a high extent; educational administrators actively engage in quality management; encourage teachers to be involved in quality improvement activities; empower teachers to help in achieving school objectives, and that to a high extent teachers are committed to their work to promote quality management. This implies that total commitment is being applied to a high extent in secondary school administration in Umuahia. The findings are in line with Akhtar (2007), who stated that secondary school principals and teachers are expected to be dedicated to duty for total commitment. The findings agree with Brown, Hitchcock and Willard (1994) that lack of administrators' commitment is one of the reasons for the failures of TQM efforts.

Research question two dwelt on the extent of application of teamwork in secondary school administration in Umuahia Education zone. The study revealed that principals encourage teamwork by defining the school mission and vision, that principals allow teachers to share their ideas and knowledge, and that teamwork encourages staff relationship and more also that principals encourage teachers to work as a team. These findings indicate that teamwork is being applied in secondary school administration to a high extent. This is in line with Dimitriadis (2000), who asserted that teamwork is of central importance to quality management in schools, teams can be established for effective communication in school administration. The findings agree with

Coyle Shapiro (1995) that teamwork allows for greater sharing of information and cooperation within the work group to improve its functioning continually.

Research question three dwelt on the extent effective communication is applied in secondary school administration in Umuahia Education zone. The study revealed that principals communicate various polices and plans to teaching and non- teaching staff to a high extent. To a little extent principals exchange ideas and knowledge with teachers; to a high extent, principals communicate quality goal to teachers; and that interpersonal communication is encouraged to a little extent to improve the quality of school administration; to a little extent principals accept information from every staff member; to a little extent principals call for suggestions; to a little extent, teachers ideas are sought; to a little extent, information is shared among principals and teachers and that to a little extent, information from teachers is used. The findings imply that effective communication is applied to a little extent in secondary school administration. Going by this result, the findings supports Bernard, (2004) who reported that communication has positive impact on student performance if the communication is effective, but if poor communication exists in the school, the performance of the students' declines. The findings revealed that effective communication is applied to a little extent in school administration which could be the reason for poor school administration in the zone, this supports Bua(2011), whose findings showed that poor communication significantly affect secondary school administration. The implication is that effective communication should be properly applied in school administration to improve school performance

With reference to the hypothesis which stated that there is no significant difference among the mean rating of Principals, vice principals and teachers on the application of TQM in secondary school in Umuahia Education Zone, the ANOVA result showed that there is a significant difference between the mean ratings of principals, vice principals and teachers on the extent of application of TQM in secondary school administration in Umuahia Education zone.

Conclusion

This study investigated the application of TQM in secondary school administration in Umuahia Education zone, Abia state.

1. An overview of the results of the study shows that total commitment is applied in secondary school administration to a high extent.
2. It was observed that teamwork is applied to a high extent in secondary school administration in Umuahia Education zone.
3. The findings revealed that effective communication is applied to a little extent in secondary school administration in the zone.
4. There is a significant difference between the mean ratings of principals, vice principals and teachers on the extent of application of TQM in secondary school administration in Umuahia Education zone.

Recommendations

From the finding of the study, the followings recommendations were made:

1. The Ministry of Education through the principals should organize seminars, workshops, conferences for teachers where TQM attributes will be discussed for continuous quality improvement.
2. Principals should be fully committed to every activity of Total Quality Management for continuous quality improvement in secondary school administration.
3. Principals should be communicating various plans and policies of the school to the teachers for effective school administration.
4. Principals should be fully committed in TQM application for effective school administration.

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