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Original Article

Influence of Total Quality Management on Students' Academic Achievement in Public Secondary schools in Ifakara Town Council.

Joy Kakingo^{*1} & Chrispina Lekule, PhD¹

^{1*} St. Augustine University of Tanzania, P. O. Box 307, Mwanza, Tanzania.

^{*} ORCID: <https://orcid.org/0000-0002-7645-3415>; Correspondence Email: kakingojoy@gmail.com.

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Date Published: ABSTRACT

28 June 2021 The issue of quality education has become one of the major concerns among government leaders, policymakers and various educational stakeholders.

Keywords: Yet, the application and usefulness of Total Quality Management (TQM) in public secondary schools in Tanzania has remained vague and at times problematic. This study examined the benefits of implementing TQM for the improvement of students' academic achievement in public secondary schools. For the purpose of this study, Total Quality Management refers to a management approach in which the school's departments, resources and activities are deliberately organized to improve quality and achieve pre-determined educational goals. In conducting this study, a mixed research approach with the convergent parallel design was adopted. Data was collected through interviews and open-ended questionnaires involving 112 respondents from four public secondary schools in Ifakara Town Council, Morogoro, Tanzania. The findings indicate that TQM improves classroom instruction, contributes to employees' continuous improvement and promotes teamwork among organization departments. Likewise, the findings indicate that TQM enhances good leadership and encourages goal setting in the organization which leads to students' academic achievement. The paper concludes with recommendations on the interventions to be adopted as a means of promoting the effectual implementation of TQM in public secondary schools. Heads of schools as key implementers of TQM are encouraged by this study to utilize the available resources to promote quality services as well as establishing a model for TQM implementation for students' academic achievement

Total Quality Management,

Students' Academic

Achievement,

Quality Education,

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INTRODUCTION

The achievement of sustainable development which is a current worldwide agenda requires quality education. In this study, the term quality education is used to refer to the kind of education that facilitates learners to acquire necessary skills that will enable them to realize their potentials and in turn play an active role in the economic life of the society to which they belong and beyond. Such education is often determined by various indicators including students' academic achievement. The achievement of quality education has triggered the need for modern approaches to improve quality in the teaching and learning process. Among the modern management approaches adopted by education institutions in various nations such as the USA, UK, Japan, Nigeria, and Kenya to improve students' performance is Total Quality Management. The term 'Total Quality Management' consists of the words, 'total' which simply means a whole, 'quality' which symbolizes the degree of excellence in the outcome' and 'management' which means the process of handling resources and all procedures in the organization' (Karimi, 2016). However, as argued by Oduwaiye, Sofoluwe and Kayode (2012), Total Quality Management is often conceptualized differently by different scholars depending on the contexts. For instance, Hasan, Islam, Shams, and Gupta (2018) conceptualizes Total Quality Management as a managerial process in which institutional departments and activities are effectively

coordinated to ensure that customers' needs are constantly fulfilled. Unlike the previous scholars, Mehraj and Wani (2014) define Total Quality Management as a management theory dedicated to satisfy and fulfil the needs of both internal and external customers. Thus, Total Quality Management in education can be conceptualized as a process of ensuring that departments, resources and activities in schools are effectively organized, utilized and executed to achieve outstanding students' academic achievement.

According to Karimi (2016), Total Quality Management was established by W. Edwards Deming, after World War II for improving the production quality of goods and services. Karimi further adds that the concept was not taken seriously by Americans until the Japanese, who adopted it in 1950 to revive their post-war business and industry, used it to dominate world markets by 1980. The educationists began to conceptualize it as Total Quality Control between the 1950s -1960s (Farooq, Akhtar & Memon, 2007; Panday, 2014). Farooq et al. further claim that Total Quality Management as a philosophy for enhancing performance in organizations spread into other fields including the field of education for the same purpose of improving education standards. Based on this historical point of view, the application of Total Quality Management in educational institutions enhances innovations, flexibility and stability, among others, which in turn improves students' achievement (Terzic, 2017). Furthermore, Farooq et al. (2007) insist that the main issue pertaining to

Total Quality Management is a participatory approach to address the question(s) of quality in business as well as in the field of education. Farooq et al. further call on the need of every member of the organization to participate in the continuous improvement plan to make total quality service possible.

Mukolwe, Okwara and Ajowi (2017) contend that Total Quality Management has paved its way into educational institutions in many countries in the world. For example, developed countries like the USA, UK and Japan have already recognized the importance of Total Quality Management and have adopted it successfully. Syed (2013) proves that in the USA, many institutions have adopted Total Quality Management in education. He further says that this adaptation has resulted in success stories about improved students' academic achievement, employee-work satisfaction and improved process efficiency. Moreover, Olgun and Hakar (2014) also report success stories of implementation of Total Quality Management principles of top management support, training and teamwork in secondary schools in Virginia Beach. The implementation of Total Quality Management in Virginia Beach resulted in improved test scores in mathematics by the students. In Bangladesh, Total Quality Management focuses on ensuring that schools have adequate qualified teachers and improved social relationships and communication among teachers, students and parents (Hasan et al., 2018).

Literature also shows that Total Quality Management has found its way into educational institutions in Africa. For example, the study by Oduwaiye et al. (2012) that was conducted in Nigeria found that there was a positive relationship between the implementation of Total Quality Management and students' academic achievement. Some African countries have developed similar systems of overseeing quality in schools. In South Africa, for example, schools have adopted an Integrated Quality Management System (IQMS) with similar aspects and focus on ensuring that schools satisfy customers' needs (Pillay & Bozas, 2016). Kenyan educational institutions also embrace Total Quality Management principles and they have shown a positive effect on academic performance among learners (Karimi, 2016). However, Karimi denotes that the overall

application of Total Quality Management in Kenyan schools is still low due to some challenges like lack of teamwork, inadequate resources, and poor school leadership.

Zaman and Anjalin (2016) assert that TQM is an effective modern approach for continuous improvement in academic achievements, school competitiveness, students' and employees' satisfaction, and school sustainability. Similarly, Ruinge and Kimani (2015) argue that school leaders that employ Total Quality Management provide a clear institutional mission and vision, reinforce quality performance, set quality goals and deploy school resources for quality performance which in turn promote teachers' job satisfaction and consequently good academic achievement among students. Therefore, adopting and implementing Total Quality Management may not only improve learners' academic achievement but also teachers' job satisfaction. This philosophy may as well lead to improved school leadership of which external education stakeholders like parents and non-governmental organizations can appreciate and support the growing demand for quality academic achievement among students.

STATEMENT OF THE PROBLEM

Quality learning that results in quality academic achievement and prosperity of school leavers in society is currently a major concern of schools and society at large. Despite the efforts made by the Tanzania government in ensuring quality education, the application and usefulness of Total Quality Management in education are still unclear. This is supported by Kabendera (2018) who argues that secondary schools in Tanzania hardly practice Total Quality Management principles. This may be the reason for the outcry that there is a decline in students' academic achievement in public secondary schools resulting from a shortage of qualified teachers and poor teaching and learning conditions. Yet, literature on the implementation and influence of Total Quality Management on students' academic achievement in Tanzania is limited. Hence, if school management and educators continue to give less or no emphasis on the implementation and usefulness of Total Quality Management, achieving quality education will remain a challenge. Thus, schools will fail to create independent and useful graduates

who are equipped with relevant knowledge, skills and innovative minds who can contribute to the sustainable development of the nation. As a result, socio-economic crimes like theft, sexual harassment, substance abuse, and political instability may increase in society. It is against this background that this study sought to examine the influence of Total Quality Management for improving students' academic achievement.

SIGNIFICANCE OF THE STUDY

The results of this study have the potential to inform policymakers on the need to develop new policies that can help schools to embrace and apply Total Quality Management principles for better students' academic achievement. It is also expected that this study will enlighten teachers and students with an understanding that their participation in quality improvement and monitoring are important ingredients for better academic achievement. Additionally, the findings of this study may instil an understanding among educational leaders like heads of school and educational officers that total member involvement in strategic school planning is crucial for the attainment of education excellency. Apart from that, the results of this study add valuable information to the existing body of knowledge on Total Quality Management and its contribution to students' academic performance. The study, therefore, offers viable measures to enhance the realization and implementation of TQM. Moreover, the findings of this study could inform the need for friendly educational policies and legal frameworks that can empower school management and teachers to embark on Total Quality Management which is the cornerstone for satisfactory students' achievement.

LITERATURE REVIEW

This study was guided by Deming's theory of Total Quality Management. The theory was initiated by Edwards Deming in the late 1950s. This theory aimed to improve organizational performance through teamwork and collaboration among workers. The theory emphasizes the focus of customer satisfaction in the organization. Deming's theory of Quality Management rests upon fourteen points of management he identified and the system of profound knowledge. This study focused on a

few principles such as number one which is to form goals for improvement of service, number six that is to institute training on the job, number seven- to institute leadership and nine-to break down barriers among staff areas that influence students' academic achievement if applied. Heads of schools and their management team, as well as teachers, should ensure quality management of all processes and activities in the schools for Total Quality Management to be implemented effectively. Also, there has to be teamwork among teachers and management, adoption of the new philosophy, as well as providing constant career development activities for all school administrators, teachers, and support staff. It can, therefore, be said that TQM is an approach that seeks to improve quality and performance which will meet customer expectations and leads to their academic achievement

Various scholars have shown that using Deming's theory has some benefits or strength in ensuring continuous improvement in the organization. For example, Joiner (2007) contends that there is a strong positive relationship between TQM practices and organizational performance. Also, Sichinsambwe, Mwanza, and Nawelwa (2015) comments that. "TQM is an approach that seeks to improve quality and performance which will meet or exceed customer expectations" (p. 4). That can be achieved by integrating all quality-related processes throughout the organization. Moreover, Summers (2006) as cited in Karimi (2016) declares that TQM theory supports the involvement of the whole organization, getting organized in every activity by every single person at each level so that excellence is achieved in all areas that are important to the customer. However, according to Akinlolu (2018), the weakness or limitation of using TQM is that it involves a lot of planning, decision-making and training, thus making it a time-consuming process. This is because the implementation of TQM requires much time and effort since employees must be trained as well as organization management. Also, financial costs for the implementation of TQM acts as a weakness to the theory. In other words, the use of this theory demands much finance in its practices that it leads to failure to its implementation by most organizations.

Relating to this study, the theory emphasizes satisfying the education customers and improving

the quality of services by determining their quality requirements so as to provide accurate output. The theory explains various practices such as involvement of employees, employee training, leadership commitment and creating a vision that facilitates continuous improvement of the organization. Deming's theory emphasizes that everyone in the system should contribute to providing quality products and services. This means that, if applied, it will contribute to improving students' academic achievement. Generally, Deming's theory of management acts as the lens of this study since it requires a shared vision by all organizational members, customer focus, a unified effort from all the members and effective management practices in ensuring quality improvements that in the end enhance students' academic achievement.

Benefits of Total Quality Management

Literature shows that Total Quality Management influences students' academic achievement. This approach benefits students' academic achievement in different ways such as promoting training for teachers and education administrators, emphasizing customers' satisfaction, improving teamwork among staff and students, and enhancing the availability of adequate resources.

Promotes Teachers' Training

Teacher training can be conceptualized as the process of education and developing skills to teachers so as to improve their human capital and ensure effective teaching and learning process. Literature shows TQM emphasizes teachers' training in achieving the academic achievement of students. Farooq et al. (2007) declare that TQM establishes a mechanism of constant on-job training for members of the organization as well as administration. This implies that students' academic achievement depends greatly on teachers' quality teaching. Teachers have to possess a great deal of knowledge and skills to meet the demands and standards of quality education. TQM promotes training for teachers and administrators for students' academic achievement in education institutions. Training helps teachers and administrators to develop and follow schools' vision and mission through their commitment and improvement in the

organizations. In other words, training helps teachers and supervisors to perform better in affecting quality teaching and learning process.

Through training, teachers improve their knowledge on matters such as teaching methods and particular subject matter. Fink (2008) contends that quality of learning is directly reactive to how the teacher effectively performs the tasks in teaching such as content knowledge, skills for material delivery, skills for instructional assessment and skills for course management that all come from proper training of teachers. Bua and Ada (2013) conducted their study in Nigeria found out that, constant training and retraining of teachers through workshops and seminars improve secondary school performance. They emphasize that adequate or enough quality teachers can lead to the achievement of quality education and by implication, national transformation. It is clear that the quality of education to be provided in schools depends much on the quality teachers who are skilled enough and up to date in effective ways of teaching. Similar results are reported by Sadikoglu and Olcay (2014) who found out that effective training of staff improves employee and customer performance. This is due to the gaining of more skills, values and knowledge by those members of the organization thus improved performance. Moreover, a study by Olgun and Hakar (2014) reported the positive impacts of training on secondary schools in Virginia Beach. They affirm that the implementation of TQM in Virginia Beach led to better test scores in Mathematics by the students. This means that training was positively associated with student academic achievement.

Improves Teamwork in the Organization

Teamwork means collaborative efforts of a group towards the achievement of a common goal or accomplishment of a task in the most efficient and effective way. TQM supports teamwork among all members of the organization for quality improvement. Farooq et al. (2007) insist that in the education field, TQM is considered as a democratic approach that addresses the issue of quality in the organization. They further explicate that TQM insists that every member of an organization should participate in the continuous improvement plan to make total quality possible. This notion implies that

if teachers demonstrate cooperative behaviour and positive attitudes towards students working in teams then this is likely to enhance the academic achievement of students in schools.

Studies (Mukolwe et al., 2017; Oduwaiye et al., 2012; Olgun and Hakar, 2014; Sichinsambwe et al., 2015) have reported on how the TQM through teamwork has led to students' academic achievement. For instance, Mukolwe et al. (2017) who conducted a study about the implementation of Total Quality Management in primary schools as a panacea for low academic achievement reported that there was a very high correlation between teamwork and academic achievement of pupils. Mukolwe et al. further explain that teamwork was associated with the academic achievement of pupils in the Teso North sub-county in Kenya as it was the most significant predictor of students' academic achievement. The study further revealed that leaders in that school recognized teamwork by open communication in an environment where fear is driven out. This is because when there is teamwork, teachers work together and help each other to improve students' performance as well as achieving the expected goals. This is why the study recommended that the school principals should strive to foster the working system of teachers and students such that it fosters teamwork since this will create a culture where all members of the team share a strong sense of collective responsibility for students' academic success or failure.

Similarly, Olgun and Hakar (2014) report teamwork as one of the elements that are positively associated with students' academic achievement in Virginia Beach. It was observed that teamwork was the most significant predictor of students' academic achievement. Moreover, Sichinsambwe et al. (2015) affirm that TQM in secondary schools creates an atmosphere of teamwork and empowers workers to take the initiative to improve processes and quality. So, TQM through teamwork allows teachers to share knowledge, skills and various techniques and improve their teaching. It also allows students to collaborate well with their teachers in groups so as to overcome some problems related to their learning, hence improved academic achievement.

Enhances the Availability of Adequate Resources

Literature shows that TQM promotes the availability of adequate resources which in turn leads to students' academic achievement. For instance, a study by Ajayi and Oyeniyi (2017) revealed that when TQM is implemented in schools in terms of recruitment of quality teachers, resources, setting achievable goals and objectives, it contributes significantly to students' academic performance. Thus, the study recommended the adoption of TQM and its principles at schools in order to improve and better students' academic performance in the studied area. In other words, TQM supports the deployment of quality resources in schools for quality improvement. The resources can be physical and material, human or financial resources. Harold and Heinz (2010) also reported that top managers who implement TQM practices provide a vision, support values emphasizing quality, set quality goals, and deploy resources for the quality services which result in greater customer satisfaction, less wastage, increased total productivity, improved profitability and an environment in which quality has high priority.

Based on the arguments made by Harold and Heinz (2010), it can be added that Total Quality Management entails the obtainability of quality teachers, quality physical resources and proper funding to be implemented effectively. However, it does not end only in availability but also in the proper management of such resources. As argued by Ater (2013), proper implementation of TQM can be attained through resource allocation and control as well as their monitoring. When learning materials, physical resources, financial resources and teachers (as human resources) are managed and monitored well, there will be smooth delivery of materials to students then effective learning which will result in students' academic achievement.

Improves Teaching and Learning Practices

Various scholars have shown that TQM has a way to improve the teaching and learning process in educational institutions. For instance, findings from a study by Jaradat (2013), showed that the findings showed that TQM contributed to the improved teaching-learning process by activating modern teaching and learning strategies, as well as

overcoming the low students' achievement problem. The researcher unveiled how Total Quality Management contributes to the performance of the organization and quality learning of students in schools as it enhances the use of modern techniques in teaching and learning such as computers. Likewise, Jamaa (2010) conducted a study on the effectiveness of applying Total Quality Management in public senior high schools in Indonesia and reported that TQM had contributed to the improvement of learners' attitudes and performance as well as an improved physical learning environment. Both studies indicate that, students' academic achievement can be realized by ensuring improved teaching and learning processes and that TQM has been one of the approaches used to improve the teaching and learning process. Ater (2013) declares that effective and successful implementation of TQM can be a powerful accelerator for achieving academic excellence in the organization.

Likewise, Pourrajab, Basri, Daud, and Asimiran, (2011) conducted a literature review and showed that educators in Malaysia believed that applying Total Quality Management in education could enhance the performance of schools especially in improving the quality of teaching and learning in schools, and suggesting that education sector should first and foremost fulfil its principles such as teacher's training programmes. This can be argued that the quality of teaching and learning practices in schools can be realized if all members of the organization understand well approaches, strategies, and methods which leads to quality improvements. Leaders should well realize various techniques to use for their workers. For instance, leaders should have clear planning, also employ collaborative decision making and ensure students' satisfaction. Similarly, teachers should understand quality methods to use in teaching so as to ensure effective teaching and learning process. When the processes are of quality, the results will also surely be of quality.

Table 1: Benefits of TQM Elements on Students' Academic Achievement

TQM ELEMENTS	RESPONSES			
	GE	M	LE	TOTAL
Leaders' commitment	75(73.5%)	26(25.4%)	1(1%)	102
Teachers involvement in decision making	84(82.4%)	4(3.9%)	14(13.7)	102

RESEARCH METHODOLOGY

This study examined the benefits originating from the implementation of TQM principles on students' academic achievement. The study was conducted in Ifakara Town Council, Tanzania. A mixed research approach and a convergent parallel design were adopted. Respondents for this study were selected through simple random and purposive sampling procedures. Data were collected through face-to-face interviews and open-ended questionnaires. The target population was 279 which included; District Education Officer, District Quality Assurance Officers, and Heads of Schools, Academic teachers and teachers. From this population, a total of 112 respondents were sampled from four public secondary schools. To ensure trustworthiness of qualitative data, the study employed a credibility method that included methodological triangulation which emphasizes the usage of more than one method of data collection such as questionnaire and interviews as used in this study. Furthermore, the reliability for qualitative data in this study was ($r \geq 0.78$). The thematic data analysis procedure was used to analyse qualitative data while descriptive statistics with the help of SPSS was used to analyse quantitative data.

FINDINGS AND DISCUSSION

The major aim study was to investigate how TQM elements benefit students' academic achievement in public secondary schools in Ifakara Town Council. The questionnaires contained questions where teachers were asked to rate to what extent the selected TQM elements benefit students' academic performance in their schools. The findings revealed that TQM elements like good leadership, teachers' involvement in decision making, quality planning, staff training, and collaboration among departments influence students' academic achievement to a great extent. The findings from teachers are indicated in *Table 1*.

TQM ELEMENTS	RESPONSES			TOTAL
	GE	M	LE	
Customer (students) focus	43(42.2%)	56(54.9%)	3(2.9%)	102
Quality Planning (development of specific strategies to achieve quality)	87(85.3%)	14(13.7%)	1(1%)	102
Staff training	36(35.3%)	25(24.5%)	41(40.2%)	102
Collaboration among departments	86(84.3%)	14(13.7%)	2(1.9%)	102
Continuous improvement for teaching and learning	78(76.5%)	23(22.5%)	1(1%)	102

Note: GE = Great Extent, M = Moderate and LE = Low Extent

Table 1 indicates that respondents revealed that most of the TQM elements benefit students' academic achievement to a great extent. The elements that were noted mostly by the respondents to have a great impact on academic achievement are teachers' involvement in decision making (82.4%), quality planning (85.3%), collaboration among departments (84.3%), continuous improvement for teaching and learning (76.5%) and leadership commitment (73.5%). Also, very few participants indicated that some of the TQM elements contribute to students' academic achievement to a low extent. Still, based on the findings, it can be argued that TQM practices when implemented effectively can contribute to outstanding students' academic achievement. This argument is supported by Aktharsha and Karthick (2016) who assert that the TQM approach in education leads to excellence in quality because it includes planning and management of the process, constant improvement, total member involvement and customer focus.

More importantly, it requires the full involvement of all staff on all organizational levels, hence representing the organizational culture. If an organization is constantly willing to direct its efforts towards continuous improvement, the TQM principles presented above can lead to its success of total quality. The principles outlined by those scholars relate to the ones that were presented in Table 1 by the researcher. So, this means, if all school members plan and act in the sense of improving quality education services, students' academic achievement can be realized in public secondary schools. Practices such as teamwork, commitment, training and quality planning which are emphasized by TQM influence effective teaching and learning processes hence improved academic achievement. Based on the qualitative data which was collected through interviews and questionnaires, a number of themes to how TQM

benefits students' academic achievement came up. Major themes that emerged in this research question included improved classroom instruction, promotion of goal setting and strategic planning, instigating employees' continuous improvement and enhances good leadership. The themes are presented and discussed in the subsequent section.

Improved Classroom Instruction

All participants noted that selected TQM principles play a crucial role in equipping teachers with skills and knowledge for the improvement in classroom instruction. For instance, respondents explained that the principle of teamwork or collaboration among departments in the school leads to improved teaching in the class by teachers. It was revealed by the respondents that in schools when there is collaboration among departments, teaching becomes easier because teachers gain access to a variety of methods to meet teaching challenges. For instance, in one school the respondents reported having something called 'team teaching', where teachers meet departmental wise then discuss a range of factors about teaching a particular subject and then help each other to teach. For example, a biology teacher helps to teach chemistry, when a colleague is observing. Most of the time, that helps to improve instruction as teachers tend to share various teaching methods hence improved academic performance. Similarly, teachers commented that "TQM enables teachers to be part of the organization and helps them to identify their areas of weaknesses and work upon for improvement". This implies that through TQM principles such as teamwork and quality planning, teachers can share skills, knowledge and techniques on how to improve classroom instruction for better academic performance.

This is supported by Bunglowala and Asthana (2016) who commented that practicing new approaches for teaching and learning, using varying techniques of teaching and subject content is all in the concept of quality that has to develop the education system. They further remark that it is expected that implementing TQM elements on teaching and learning system, would impact not only quality improvements but also enhanced teaching and learning satisfaction for teachers and students. It can therefore be argued that TQM practices make teachers and students be fully committed to their responsibilities and duties which contribute to better performance in classroom teaching as well as in individual student performance.

Promotion of Goals Setting and Strategic Planning

Respondents reported that the creation of vision, mission and goals enables them to plan strategically how to improve students' performance. All schools had a mission, vision and goals displayed where everyone in the organization could see. Also, all school leaders claimed to have communicated the school's mission statement, vision and goals to their employees so that they can understand them and plan well how to achieve them. Heads of schools when asked in an interview how TQM through quality planning benefits students' academic achievement, they said that it enables the school members to have focus and direction by knowing what and how to do to achieve the expected goals. They further explained that setting plans help them to know where they go and what they ought to increase the success of their students and also to achieve the goals of the country's education. So, heads of schools tend to supervise teachers to see if they perform according to the school goals by looking at their teaching, their discipline, interaction with students, and so on.

Findings also revealed that strategic planning benefits student academic achievement because teachers are being organized and they understand what they should do to help the student understand but also help them achieve school goals without difficulty. This implies education institutions that engage in planning strategically are likely to have positive academic performance since they outline

strategies to achieve the intended goals and objectives of the organization. The first of Deming's 14 points is to create constancy of purpose, which implies that without focused and informed organizational direction, the organization cannot plan for quality improvement (Sallis, 2005). The author further explains that quality does not just occur, it must be planned for and having a strong strategic vision is one of the most important factors for any institution. This means that the implementation of the first point in Deming's theory in most public schools enables them to somehow improve students' academic achievement. The real significance is that planning for quality guides leaders' attention away from daily issues and forces a re-check of the main goals of the institution and its significant relationship with its customers (students). Teachers are also able to organize strategies and techniques for teaching that are compatible with the school's goals that can empower students to learn effectively thus improve their academic improvement. So, this means implementing TQM in schools, benefits student's academic achievement because it promotes planning for quality which should be the main task for the education sector.

Encouraging Employees' Continuous Improvement

The findings showed positive impacts come in secondary schools when teachers are continuously training as TQM instigates. The respondents informed the researcher that when they are taken to several training programmes, they become motivated in their job which in the end makes students' performance improved. In other words, this means that when staff is trained, their personal and organizational growth is guaranteed hence better output results. This is because training is one of the motivation factors for teachers as they learn a variety of things that are new to them so when they come back, their effectiveness increases hence improved academic achievement. It was further revealed that training in public secondary schools allows teachers to develop the skills and knowledge they require to address students' learning challenges and that improves the teaching and learning process. Also, it adds exposure for teachers which normally motivates them. So, the government and other education leaders should promote teachers' training

especially in our government schools where we face so many challenges.

The findings are in line with Deming's 6th principle which states '*institute training on the job*' for continuous improvement in the organization to be achieved. According to Deming (1986), the greatest waste in an organization is a failure to use the talents of its people properly and training is a powerful tool for quality improvement (Sallis, 2005). What Deming depicts here relates to the findings because it is through training where teachers gain new knowledge and skills that enable them to perform well in their teaching and impart relevant knowledge to student's hence improved academic achievement. Oduwaiye et al. (2012) argue that for effective TQM implementation, first, there must be training in the new processes for teaching and learning that are developed. Next, training should be provided in the use of new assessment methods and then, there must be training in the new management system principles. This infers that providing continuous professional development for all teachers, school administrators and even support staff is very crucial for quality organizational performance.

Moreover, training to school leaders should also be given priority to ensure school effectiveness. As TQM emphasizes management/leadership commitment, they need to be well versed with all quality processes in running the school so that they can be committed. Shantal, Halttunen and Pekka (2014) stress that training enhances positively principals' leadership practices as it makes them confident with their practices and overcomes organizational challenges including teacher educators' job performance hence students' academic achievement. They argue that "because career development is a continuous process, principals will benefit from additional training that focuses on working comfort with new technologies and implementing them in teaching and learning in their schools" (pp. 45-46). This means that several forms of training such as seminars and workshops can be adopted to make sure all educators are versed with relevant knowledge, skills, attitudes and standards that can be helpful in the process of achieving quality improvement in secondary schools. This is because training is one of the important intervention techniques used in

implementing TQM. So, for its effective implementation, professional development should be included in organizational plans followed by effective implementation with feedback so as to ensure it responds to educators' learning needs. Educators who participate in training then must put their new knowledge and skills into practice. Training is not effective unless it makes teachers improve their instruction or causes administrators to become better school leaders.

Enhancing Good Leadership

Leadership as one of the TQM elements was reported to have resulted in students' academic performance. During interviews, respondents were asked to explain how leadership contributes to the academic achievement of students. Most of the respondents reported that leadership plays a big role in ensuring students' academic achievement. It is effectively achieved in public secondary schools since leaders are the directors, facilitators and motivators who make sure all resources in the school are effectively utilized for improved performance and output. Most school leaders commented that good leadership makes them collaborate well with the staff in achieving the school mission and goals as they mostly make decisions together regarding the wellbeing of students, something which makes even their performance improve. This means that leadership that promotes collaboration and teamwork influences the academic achievement of students. This is aligned with Deming's comment on his 7th principle '*institute leadership*' where it explains that the chief task of leadership is to narrow the number of differences within the system, and bringing everybody towards the goal of excellence. Therefore, in schools, this means bringing everyone including teachers, support staff and students towards the goal of learning for all (Oduwaiye et al., 2012).

Furthermore, it was found out that leadership plays a great role in achieving good prosperity of schools as well as increasing students' performance. This is because leaders are the monitors of all processes going on in the school. For example, DEO has a responsibility to monitor heads of schools and teachers if they perform their assigned duties effectively and if the school environment is

conducive for learning. All these facilitate the provision of quality education to students which will help them in their lives in the future. This means that good leadership to TQM implementation is very necessary since there should be planning for quality, monitoring the process, activities and all resources towards quality improvement. It was also commented by one of the teachers that "Leadership contributes to students' academic achievement by planning and implementing different plans and strategies that aim to raise up their performance. Also, through good leadership, teachers are organized, coordinated and well-motivated towards achieving the school vision". So, it can be argued that in public secondary schools, when there is good leadership, all employees will be motivated and inspired to perform in quality and focus on achieving total quality in students' academic achievement.

TQM requires leaders to be committed in achieving quality in everything in the organization so as to improve organizational performance. Merih (2016) supports this by explaining that in order to increase organizational efficiency and product quality through TQM, the entire organization should be committed from top to the toe because as the leaders of an organization, the senior managers should show leadership and initiative and pass on the spirit down to the middle managers who then communicate the whole thing to their teams. Likewise, Ater (2013) contends that in TQM implementation, the functions of leaders encompass a full commitment to creative and innovative practices as well as effective controlling of human resources. It can be argued that education leaders have a task to plan for quality, monitor the implementation of such plans, and evaluating the whole process of teaching and learning to ensure academic performance is improved. The school leaders such as DEO, heads of school and academic masters/mistresses are expected to employ innovative school reform initiatives to address learners' problems and teachers as well. This means school leaders need to be very knowledgeable and skilled in administrative issues so that they can overcome challenges. That is why the government along with ADEM, which is the government agency for school leaders need to make sure all school heads appointed have relevant qualifications and continue to conduct a training program for them.

Conclusion and Recommendations

Quality improvement should be an unremitting objective for education institutions particularly public secondary schools in Tanzania. Having committed leaders, quality educators, adequate funding, teamwork and adequate education facilities significantly promote the implementation of TQM and lead to improved student academic achievement. Such principles of TQM are effective determinants of quality academic attainment. In other words, TQM enables organizational members to collaborate with each other in making sure the intended results are achieved. Also, TQM requires qualified human resources. Moreover, TQM can only be adopted through organizations that embrace innovation and flexibility. Ismail (2014) contends that quality improvement through TQM demands an extensive and informed adjustment in policy framework, structures and procedures. Thus, school management as the chief engineer should make sure such changes occur. Hence, the Ministry of education and schools should focus on planning and adjusting themselves so as to enhance the provision of quality education. This also implies that top management has a vital role in ensuring schools continuously improve their services for better academic performance. Although it was discovered that, implementing TQM is a major challenge which is expected to take a long journey for the education institutions to subdue, regardless of such obstacles, more efforts should be made to enhance the adoption of TQM which its implementation results in fruitful advantages in improving the performance of educational institutions. Besides, for fruitful application of TQM principles in education, all stakeholders need to be involved in the process because providing satisfactory services to customers (students), joint efforts are needed starting with top management making the conducive environment for learning and teachers to implement the approach directly in the school.

Therefore, it is recommended that TQM should be included in the quality framework of public secondary schools. This study calls upon the Ministry of Education, Science and Technology (MOEST) to form a policy that provides a framework showing how various stakeholders can participate in the provision of quality education services to students. It should organize and evaluate

all quality improvement practices such as training teachers, adequacy of teaching and learning materials and quality delivery of knowledge in the classrooms if they are effectively practiced. Furthermore, a serious inspection of schools, especially of rural areas, forming a curriculum that promotes quality, organizing training to educators, and maintaining a conducive school environment for quality learning is highly recommended. In doing so, significant benefits of TQM in education would be seen and quality education in secondary schools would be achieved. Moreover, the study recommends that heads of schools as one of the direct implementers of TQM in secondary schools should participate fully in the implementation of TQM for students' academic achievement. As school heads, they are expected to utilize the available resources to promote quality services in the school. For instance, to overcome financial challenges, heads of schools may try to establish income-generating projects to cover training for teachers and some necessary facilities costs needed for teaching and learning. All these can be achieved through the provision of a clear understanding of TQM and the commitment of all education stakeholders in providing quality education services to students in public secondary schools.

REFERENCES

- Ajayi, K. O., & Oyeniya, O. L. (2017). Impact of Total Quality Management on students' academic performance in public secondary schools in Ogun State. *IFE Psychologia: An International Journal*, 25(1), 463-480
- Akinlolu, M. T. (2018). *Framework for the effective implementation of total quality management in the maintenance of tertiary institution buildings in South Africa*. Doctoral dissertation. Cape Peninsula University of Technology. Retrieved from <http://hdl.handle.net/20.500.11838/2630>
- Aktharsha, U. S. & Karthick, S. (2016). Total Quality Management in education sector. *International Journal of Management (IJM)*, 7(2), 529-535
- Ater, J. A. (2013). *Challenges facing the implementation of Total Quality Management practices in public secondary schools in Kenya*. (Masters Dissertation, Kenyatta University). Retrieved from <https://pdfs.semanticscholar.org/eeaf>
- Bua, F. T. & Ada, J. N. (2013). Impact of Total Quality Management on secondary school education for national transformation: The case of Benue North-West Senatorial District of Benue State, Nigeria. *Journal of Education and Practice*, 4(20), 68-76.
- Bunglowala, A., & Asthana, N. (2016). A Total Quality Management Approach in Teaching and Learning Process. *International Journal of Management*, 7(5), 223-227.
- Farooq, M. S., Akhtar, M. S., Ullah, S. Z & Memon, R. A (2007). Application of Total Quality Management in education. *Journal of Quality and Technological Management*, 3(2), 87- 97.
- Fink, D. (2008). Evaluating teaching: a new approach to an old problem. *To Improve the Academy: Resources for Faculty, Instructional, and Organizational Development*, 26(1),3-21 doi: 10.1002/j.2334-4822.2008.tb00497.x
- Harold, K. and Heinz, W. (2010). *Essentials of management: An international perspective*. New Delhi: Tata McGraw Hill.
- Hasan, K., Islam, M. S., Shams, A. T., & Gupta, H. (2018). Total quality management (TQM): Implementation in primary education system of Bangladesh. *Int. J. Res. Ind. Eng.*, 7(3), 370-380.
- Ismail, N. S. (2014). Total Quality Management (TQM) practices and school climate amongst high, average and low performance secondary school. *Malaysia Journal of Learning and Instruction* 1(11), 41-45.
- Jamaa, S. A. (2010). The effectiveness of applying Total Quality Management in public senior high school Kasihan 1 Bantul, Yogyakarta Indonesia. *Journal of Education*, 3(1), 25-35
- Jaradat, H. M. (2013). Impact degree of the Total Quality Management on the public schools' effectiveness in the governorate of Jarash as viewed by educational supervisors. *European Scientific Journal*, 9(4) 180-193

- Joiner, T. A. (2007). Total Quality Management and performance: The role of organization support and co-worker support. *International Journal of Quality and Reliability Management*, 24(6), 617-627
- Kabendera, D. (2018). Total Quality Management (TQM) theory practices in government secondary schools in Ngara district, Tanzania: The extent the principles of TQM are being practiced. *International Journal of Information Research & Review*, 5(1), 4982-4992
- Karimi, M. R. (2016). *Influence of Total Quality Management principles on performance of public secondary schools in Kajiado North Sub County*. Master's Dissertation. University of Nairobi, Kenya.
- Mehraj, K., H. & Wani, A. I. (2014). Total quality management in education: An analysis. *International Journal of Humanities and Social Science Invention*, 3(6), 71-78.
- Merih, A. (2016). Total Quality Management: The way to achieve quality excellence. DOI: 10.13140/RG.2.2.15304.72969
- Mukolwe, J. O., Okwara M. and Ajowi, O. J. (2017). Implementation of Total Quality Management in primary schools as a panacea for low academic achievement. *European Journal of Research in Social Sciences*, 5(5), 54-63
- Oduwaiye, R. O. Sofoluwe, A. O., Kayode, D. J. (2012). Total Quality Management and students' academic performance in Ilorin Metropolis secondary schools in Nigeria. *Asian Journal of Management Sciences and Education*, 1(1), 141-152.
- Olgun, C., & Hakar, M. (2014, April). Assessing the level of TQM practices applied at Girne American University (GAU). Paper presented at the 9th International Conference, Istanbul. Retrieved from <https://d.researchbib.com/f/bnZmZ3ZQRhpTEz.pdf>
- Panday, V. (2014). Total Quality Management (TQM): A special reference to library. *International Journal of Digital Library Services*, 4(3), 37- 43.
- Pillay, S., & Bozas, A. (2016). An investigation into quality management principles at a ND primary school in Durban. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, 6(5), 89-108.
- Pourrajab, M., Basri, R. Daud, S. M. and Asimiran, S. (2011). Applying Total Quality Management in the classroom and solving students' failure. *KASBIT Business Journal*, 4(1), 69-76
- Ruinge, M. W. & Kimani, G. N. (2015). Relationship between selected total quality management practices employed by public secondary schools' principles and students' performance in Kenya certificate of secondary education in Kiambu Country, Kenya. *International Journal of Education and Practice*, 3(2), 66- 79.
- Sadikoglu, E., & Olcay, H. (2014). The effects of Total Quality Management practices on performance and the reasons of and the barriers to Total Quality Management in Turkey. *Advances in Decision Sciences*, 1-17.
- Sallis, E. (2005). Does TQM have a role in education? *Journal of Engineering Education Transformations*, 19(2), 9-17.
- Shantal, K. M. A., Halttunen, L., & Pekka, K. (2014). Sources of principals' leadership practices and areas training should emphasize: Case Finland. *Journal of Leadership Education*, 13(2) 51-60.
- Sichinsambwe, C., Mwanza, G. B. & Nawelwa, J. (2015). An analysis of Total Quality Management practices in Zambian secondary schools: A survey of Lusaka District. *Business & Education excellence*, 6(3), 1-10.
- Suleiman, Q. & Gul, R. (2015). Challenges to successful Total Quality Management implementation in public secondary schools: A case study of Kohat District, Pakistan. *Journal of Education and Practice*, 6(15), 123-134
- Syed, R. (2013). Survey of Total Quality Management in Iran: Barriers to successful implementation service organizations.

International Journal of Quality Assurance,
18(4), 12-35

Terzić, E. (2017). The implementation of total quality management (TQM) as a function of improving education. *Fascicle of Management and Technological Engineering*.

Zaman, A. S. & Anjalin, U. (2016). Implementing total quality management in education: Compatibility and challenges. *Open Journal of Social Sciences*, 4, 207-217.