

Total Quality Management and Teacher's Productivity in Public Secondary Schools in Jalingo Education Zone

By

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Abstract

This study examined the relationship between Total Quality Management (TQM) and teacher productivity among public secondary schools in Jalingo Education Zone. The purpose was to determine whether TQM practices influence the effectiveness and output of teachers. The study adopted a descriptive survey research design. The population is 1,200 and comprised public secondary school teachers in the zone from which 300 participants were randomly selected. Data were collected using a structured questionnaire and analyzed using Chi-Square test and Pearson Product Moment Correlation. The results revealed a moderate positive correlation ($r = 0.394$) between TQM and teacher productivity, which was statistically significant at the 0.05 level. This implies that the implementation of TQM strategies—such as leadership involvement, staff development, and continuous improvement—has a meaningful impact on teacher performance. Based on these findings, two key recommendations were made. First, school administrators should integrate TQM principles into their management practices to enhance teacher productivity. Second, the Ministry of Education should organize regular capacity-building workshops for principals and teachers to promote effective application of TQM in schools. The study concludes that adopting quality management strategies can significantly improve educational outcomes through increased teacher effectiveness and performance. These findings contribute to ongoing efforts to improve public secondary education in Nigeria.

Keywords: Educational Management, Jalingo Education Zone, Public Secondary Schools, Teacher Productivity, and Total Quality Management.

Introduction

Teacher productivity remains a crucial determinant of educational quality and student performance in public secondary schools. It reflects the capacity of teachers to effectively deliver curriculum content, manage classrooms, assess learning outcomes, and contribute meaningfully to overall school goals (Abdullahi and Garba, 2022). Productive teachers are better able to engage learners, adopt innovative instructional methods, and adapt to changing educational needs. However, teacher productivity does not occur in isolation. It is influenced by a range of organizational factors, particularly the quality of school management systems and practices. Among these, Total Quality Management (TQM) has emerged as a strategic model for institutional improvement and teacher performance enhancement in educational settings (Ibrahim and Okeke, 2023).

Total Quality Management encompasses a structured and integrated approach to institutional management that emphasizes continuous improvement, teamwork, stakeholder participation, and evidence-based decision-making (Mohammed and Yusuf, 2022). In the education sector, TQM seeks to establish quality at every level of the school system by focusing on processes,

outcomes, and performance indicators. Key elements of TQM in schools include leadership commitment, staff development, clear communication channels, resource availability, and periodic performance evaluation. These components work together to foster a supportive and motivating environment that enables teachers to perform at their best (Olawale and Danjuma, 2024).

When TQM principles are effectively implemented, teachers are more likely to experience enhanced job satisfaction, greater professional development opportunities, and stronger institutional support systems. Such conditions are known to boost commitment, reduce burnout, and increase instructional effectiveness, all of which contribute significantly to teacher productivity (Bello and Audu, 2023). In regions where schools face administrative or infrastructural challenges, the role of TQM becomes even more critical.

In the context of public secondary schools in Jalingo Education Zone, where limited resources and systemic constraints often hinder educational progress, investigating the impact of TQM on teacher productivity is both timely and necessary. Understanding how TQM practices influence teacher output will provide evidence-based insights for policymakers, school administrators, and education stakeholders seeking to improve teaching quality and student learning outcomes (Eze and Lawal, 2022). This study, therefore, seeks to examine the relationship between Total Quality Management and teacher productivity in public secondary schools within Jalingo Education Zone.

Statement of the Problem

Teacher productivity in public secondary schools within Jalingo Education Zone has remained significantly low, leading to concerns about the declining quality of education (Bello and Audu, 2023). Despite efforts, many schools still struggle to enhance teaching performance. These challenges may be linked to inadequate implementation of Total Quality Management practices such as leadership commitment, staff development, and continuous improvement. The lack of structured quality management systems calls for an investigation into how TQM influences teacher productivity in the zone.

Purpose of the Study

The main purpose of this study is to examine the relationship between Total Quality Management (TQM) and teachers productivity in public secondary schools in Jalingo Education Zone. The specific objectives are to;

Examine the relationship between the extent of Total Quality Management (TQM) application and teacher productivity in public secondary schools in Jalingo Education Zone.

Assess the relationship between Total Quality Management (TQM) practices and teacher productivity in public secondary schools in Jalingo Education Zone.

Research Questions

What is the relationship between the extent of Total Quality Management application and teacher productivity in public secondary schools in Jalingo Education Zone?

How does Total Quality Management practice relate to teacher productivity in public secondary schools in Jalingo Education Zone?

Hypotheses

- Ho₁: There is no significant relationship between the extent of Total Quality Management (TQM) application and public secondary schools in Jalingo Education Zone.
- Ho₂: Total Quality Management (TQM) has no significant impact on teacher productivity in public secondary schools in Jalingo Education Zone.

Methodology

The study adopted a descriptive survey research design to examine the relationship between Total Quality Management (TQM) and its impact on teacher productivity in public secondary schools within Jalingo Education Zone. The main instrument for data collection was a structured questionnaire designed to capture information on the relationship between TQM practices and another instrument measuring teacher productivity. The questionnaire was validated by three experts in educational management and measurement and evaluation to ensure content validity.

A pilot test was conducted using 30 teachers from schools outside the sampled schools. The reliability of the instrument was determined using Cronbach's Alpha, and a reliability coefficient of 0.84 for TQM while teacher productivity yielded a reliability of 0.87., indicating high internal consistency.

Data collected were analyzed using both descriptive and inferential statistics. Mean and standard deviation were used to answer the research questions, while Chi-Square test was used to test the first hypothesis and Pearson Product Moment Correlation was used to test the second hypothesis at a 0.05 level of significance was used to test the hypotheses.

Results and Discussion

Research Questions 1: To what extent is Total Quality Management (TQM) applied in public secondary schools in Jalingo Education Zone?

Table 1: Mean and Standard Deviation on the Extent of Application of TQM in Public Secondary Schools

| S/N | Questionnaire Items | N | Mean | SD | Remark |
|-----|--|-----|------|------|-----------|
| 1 | Teachers participate in decision-making processes. | 300 | 3.60 | 0.65 | Agreed |
| 2 | The school maintains regular staff development programmes. | 300 | 3.45 | 0.72 | Agreed |
| 3 | There is effective monitoring of instructional quality. | 300 | 3.70 | 0.60 | Agreed |
| 4 | Student feedback is used to improve teaching quality. | 300 | 2.40 | 0.84 | Agreed |
| 5 | The school promotes teamwork among staff. | 300 | 3.30 | 0.68 | Agreed |
| 6 | Continuous improvement is emphasized in all school activities. | 300 | 3.55 | 0.70 | Agreed |
| 7 | There is an established system for quality assurance. | 300 | 3.25 | 0.75 | Agreed |
| 8 | Stakeholders' inputs are rarely considered in school planning. | 300 | 2.30 | 0.90 | Disagreed |
| 9 | The school head ensures effective communication of goals. | 300 | 3.40 | 0.66 | Agreed |
| 10 | Evaluation reports are used to adjust administrative strategies. | 300 | 3.65 | 0.62 | Agreed |
| | Grand Mean | | 3.26 | | |

Source: Field Survey, 2025

Table 1 provides an overview of the extent to which Total Quality Management (TQM) is applied in public secondary schools, based on the responses of 300 participants. Most items reflect aagreed of TQM application, with means ranging from 3.25 to 3.70. Key areas of high application include teacher involvement in decision-making, staff development programs, instructional quality monitoring, teamwork promotion, continuous improvement, and effective communication of school goals. These findings suggest that schools are generally committed to fostering a quality-driven environment. However, items 4 and 8 concerning the use of student feedback to improve teaching quality and stakeholder involvement in school planning—indicate a low extent of application, with means of 2.40 and 2.30, respectively. This points to potential areas for improvement, particularly in incorporating feedback and involving stakeholders in decision-making processes. The grand mean of 3.26 signals an overall moderate-to-high application of TQM in these schools.

Research Questions 2: What is the impact of Total Quality Management (TQM) on teacher productivity in public secondary schools in Jalingo Education Zone?

Table 2: Mean and Standard Deviation on the Impact of Total Quality Management (TQM) on Teacher Productivity in Public Secondary Schools

| S/N | Questionnaire Items | N | Mean | SD | Remark |
|-----|---|-----|------|------|-----------|
| 1 | TQM practices improve my teaching effectiveness. | 300 | 3.80 | 0.65 | Agreed |
| 2 | Regular TQM evaluations help improve my lesson delivery. | 300 | 3.45 | 0.72 | Agreed |
| 3 | TQM encourages a positive working environment, leading to increased productivity. | 300 | 3.20 | 0.68 | Agreed |
| 4 | TQM initiatives have had no noticeable effect on my productivity. | 300 | 3.10 | 0.80 | Agreed |
| 5 | My productivity improves as a result of regular training and development through TQM. | 300 | 3.50 | 0.72 | Agreed |
| 6 | The feedback system in TQM has increased my professional growth. | 300 | 2.40 | 0.85 | Disagreed |
| 7 | TQM practices help identify areas for improvement in my teaching strategies. | 300 | 3.40 | 0.60 | Agreed |
| 8 | TQM has not contributed significantly to improving my work-life balance. | 300 | 3.15 | 0.83 | Agreed |
| 9 | TQM leads to better collaboration and sharing of ideas among teachers. | 300 | 3.85 | 0.58 | Agreed |
| 10 | The implementation of TQM has increased my overall job satisfaction and commitment. | 300 | 3.30 | 0.72 | Agreed |
| | Grand Mean | | 3.30 | | |

Source: Field Survey, 2025

Table 2 presents the mean and standard deviation values for the impact of Total Quality Management (TQM) on teacher productivity in public secondary schools. The responses indicate that TQM has a generally high impact on various aspects of teacher productivity, with most items scoring means above 3.1, suggesting a positive influence on teaching effectiveness, lesson delivery, and professional growth. However, item 6, regarding the feedback system in TQM, shows a lower mean of 2.40, indicating a low impact on teachers' professional growth. The grand mean of 3.30 further supports the conclusion that TQM practices are perceived to have a moderate-to-high impact on teacher productivity overall. Items related to collaboration, job satisfaction, and identifying areas for improvement were rated highly, while work-life balance showed less significant improvement. This suggests that TQM is generally effective in enhancing productivity but may have limited influence on certain personal and professional aspects of teachers' lives.

Testing of Hypotheses

Hypotheses 1:

Ho₁: There is no significant relationship between the extent of Total Quality Management (TQM) application and public secondary schools in Jalingo Education Zone.

Table 3: Pearson Product Moment Correlation analysis showing the relationship between the extent of Total Quality Management (TQM) application and public secondary schools in Jalingo Education Zone

| Variables | N | df | r | r ² | t-value | Sig. Decision |
|---------------------------------------|-----|-----|-------|----------------|---------|------------------|
| TQM Application School Performance | 300 | 298 | 0.624 | 0.389 | 13.78 | 0.05 Significant |

The result in Table 3 reveals a moderate to strong positive correlation ($r = 0.624$) between Total Quality Management (TQM) application and public secondary school performance in Jalingo Education Zone. With an r^2 of 0.389, about 38.9% of the variation in school performance is explained by TQM practices. The t -value of 13.78 and a significance level of 0.05 confirm the relationship is statistically significant. Thus, TQM implementation positively influences school effectiveness, warranting rejection of the null hypothesis.

Hypothesis 2:

Ho₂: Total Quality Management (TQM) has no significant impact on teacher productivity in public secondary schools in Jalingo Education Zone.

Table 4: The extent to which Total Quality Management predicts teacher productivity in public secondary schools in Jalingo Education Zone.

| Model | Unstandardized | Standardized | t | Sig. |
|--------------------------|----------------|--------------|-------|-------|
| | Coefficients | Coefficients | | |
| | B | Std. Error | Beta | |
| (Constant) | 1.420 | 0.124 | — | 12.43 |
| Total Quality Management | 0.710 | 0.078 | 0.502 | 12.80 |

a. Dependent Variable: Teacher productivity

Table 4 shows that Total Quality Management (TQM) significantly predicts teacher productivity in public secondary schools in Jalingo Education Zone. The unstandardized coefficient ($B = 0.710$) indicates that for every unit increase in TQM, teacher productivity increases by 0.710 units. The standardized Beta value (0.502) suggests a moderate positive relationship. The t -value (12.80) is high, and the significance level ($p < 0.05$) implies the result is statistically significant. Thus, TQM positively influences teacher productivity.

Discussion of Findings

According to *Eze and Buba (2022)*, Total Quality Management (TQM) significantly enhances school effectiveness through structured leadership, staff motivation, and goal-oriented processes. This finding is strongly supported by the present study, which revealed a significant and positive relationship between TQM application and the performance of public secondary schools in Jalingo Education Zone. The correlation coefficient ($r = 0.624$) and a significance value of 0.05 confirm that improved application of TQM is associated with higher levels of teacher productivity and school efficiency. In agreement, *Abubakar and John (2023)* emphasized that when teachers operate in well-managed environments with clearly defined quality standards,

their performance increases significantly. These findings underscore the importance of implementing TQM strategies in public school administration.

Conclusion

The study concludes that Total Quality Management (TQM) application significantly enhances the performance of public secondary schools in Jalingo Education Zone. A strong positive correlation was observed, indicating that effective implementation of TQM practices contributes meaningfully to improved teacher productivity and overall institutional effectiveness in the education sector.

Recommendations

1. School administrators should adopt and consistently apply Total Quality Management (TQM) principles to enhance teacher productivity and institutional performance.
2. Government and education stakeholders should provide regular training for teachers and administrators on TQM strategies to improve the quality of teaching and learning in public secondary schools.

References

- Abdullahi, R. A., & Garba, A. D. (2022). Teacher effectiveness and classroom productivity in Nigerian public schools. *Nigerian Journal of Educational Research*, 18(1), 45–56.
- Abubakar, M., and John, T. (2023). Teachers' mental health and working conditions in Northern Nigeria. *Journal of Educational Leadership*, 5(2), 55–68.
- Bello, Y. M., & Audu, T. K. (2023). Enhancing teacher performance through quality assurance practices in secondary schools. *Journal of Educational Management and Planning*, 9(2), 33–49.
- Eze, C. I., and Buba, L. M. (2022). Welfare and teacher productivity in public schools in Nigeria. *Nigerian Journal of Education Studies*, 14(1), 77–89.
- Eze, I. O., & Lawal, M. K. (2022). Total quality management strategies and staff performance in education. *West African Journal of Educational Studies*, 15(1), 88–97.
- Ibrahim, H. L., & Okeke, N. P. (2023). Application of TQM in public education: A review of practices and outcomes. *African Journal of Educational Administration*, 10(3), 101–115.
- Mohammed, B. S., & Yusuf, A. A. (2022). Quality management principles in education: Challenges and prospects. *Journal of School Leadership and Policy*, 7(1), 66–80.
- Olawale, S. R., & Danjuma, H. A. (2024). Leadership and continuous improvement in Nigerian secondary schools. *International Journal of Quality Education*, 11(1), 59–70.