



ORIGINAL RESEARCH PAPER

English

EXPLORING THE EDUCATIONAL ASPECTS
CONSIDER TO ENSURE QUALITY EDUCATION
BY CATHOLIC SCHOOLS OF NAGALAND: AN
INVESTIGATION

KEY WORDS: crumb rubber, utilization, compressive strength, low cost, sustainable

Fr. Johnson	Research Scholar, Department of History, St. Joseph University, Chumukedima:Nagaland.
Dr. Avinuo Chupuo*	HOD & Assistant Professor, Department of History, St. Joseph University, Chumukedima:Nagaland. *Corresponding Author

ABSTRACT	A high-quality education is essential for developing skilled, employable individuals who contribute to their families, communities, and the nation. Without employability, education becomes a societal burden. According to the American Society, quality in education is the sum of features that meet learners' needs, relying heavily on quality teaching and adaptable, reflective teachers. Catholic schools are known for employing highly capable teachers who connect well with diverse learners. Educational quality involves various components, all contributing to academic and career success. Studies show Catholic schools outperform other private institutions in quality assurance, leading to better outcomes. Quality education prepares students for life beyond exams, fostering personal growth. This study explores how 'Quality of Teaching,' 'Quality of Teachers,' and 'Quality of Schools' influence 'Quality of Education' in Catholic schools in Nagaland. Data from 500 stakeholders across 50 schools, analyzed using Pearson correlation and Structural Equation Modeling, revealed that while schools and teachers impact educational quality, teaching quality and teacher standards need improvement.
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INTRODUCTION

High-quality education is vital for producing skilled, employable individuals who contribute to society. Without employability, education becomes a burden, creating dependence on state support. Thus, quality must be central to education, ensuring meaningful outcomes. The term "quality," from Latin *qualitas*, denotes excellence and meeting or exceeding expectations (Chapman, 2002).

Quality education depends on quality teaching. Teachers must be adaptable, reflective, and responsive to diverse learning styles while fostering autonomy. Abbott et al. (1998) describe quality teaching as effective knowledge transfer those values both process and results. Effective teaching motivates, connects to real-life, and builds supportive environments. Assessments and feedback identify gaps and assist slower learners. Alton-Lee (2003) emphasizes curriculum, infrastructure, research, policy, and governance—areas where Catholic schools perform well.

Teacher quality greatly influences student success. Catholic schools hire skilled teachers who use diverse strategies, effective assessments, and pursue ongoing professional development. König & Pflanzl (2016) link pedagogical knowledge to student outcomes, while Gitomer (2019) stresses evaluation for improvement. Traits like empathy, communication, and collaboration enhance teaching quality (Buttner et al., 2016; McNally & Slutsky, 2018).

Assessing education quality includes academic performance, values, and skills. Catholic schools offer strong infrastructure, leadership, scholarships, and values-based learning. Mentors instill discipline and shape character (Dolton & Vignoles, 1999). These institutions align knowledge, skills, and values with national goals.

Catholic schools consistently excel in NBSE Class X and XII results, preparing students for life through holistic development—emotional, cognitive, social, and physical—ensuring readiness beyond academics.

Figure 1: crumb rubber in cracker mill

Sources: [www.googleimages.com/ crumb rubber](https://www.googleimages.com/crumb%20rubber)

APPLICATIONS OF WASTE TYRES IN CIVIL CONSTRUCTION

Methodology

In this study, purposive sampling was used to collect primary data from 500 stakeholders—principals, teachers, students, and parents—across 50 Catholic schools in Nagaland. Data were gathered through questionnaires using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Pearson correlation was applied to examine relationships among the Quality of Teaching, Teachers, Schools, and Education. A Structural Equation Model (SEM) was used to analyze interconnections and identify the best model for assessing education quality. Model fit was evaluated using indices: CMIN/DF < 3, $p > 0.05$, TLI, CFI, GFI, NFI > 0.9, RMSEA < 0.05, and PCLOSE > 0.50.

RESULT AND DISCUSSION

Structural Equation Modeling (SEM) is widely used in Human Resource Management (HRM) to examine complex phenomena by modeling variable relationships. HRM researchers use SEM to assess abstract concepts that are difficult to measure directly (Table 1). This study's results and discussion present validated structural modeling data, including reliability and correlation. Reliability, measured using Cronbach's alpha, ranged from 0.704 to 0.829, meeting the 0.70 threshold, confirming data suitability. The Kaiser-Meyer-Olkin (KMO) measure of 0.749 confirmed sample adequacy. Pearson's correlation analysis found significant relationships ($p < 0.05$) between educational quality and influencing factors, rejecting the null hypothesis (Table 2). However, the quality of teachers showed low correlation with overall school quality ($p > 0.05$), supporting the null hypothesis. This indicates that while Quality of School and Quality of Teachers positively affect Education Quality in Catholic Schools, Quality Teaching does not (Table 3).

Table 1. Reliability Statistics

Variables	Cronbach α	Cronbach's α Based on Standardized Items	Items
Quality of Education	.704	.707	10
Quality of Teaching	.778	.780	12
Quality of Teachers	.734	.737	10
Quality of Schools	.829	.829	10

Source: Compiled from survey data

Table 2. KMO and Bartlett's Test

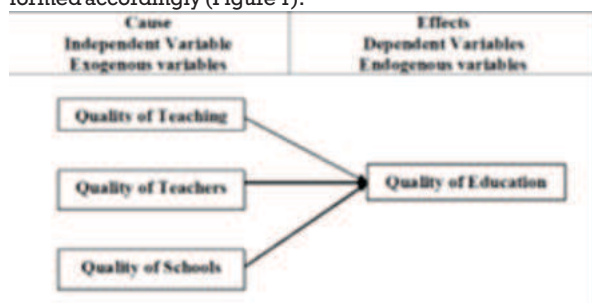
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.749
Bartlett's Test of Sphericity	Approx. Chi-Square	11007.632
	df	861
	Sig.	.000

Structural Equation Modeling Steps

This study used SEM, involving five main steps: model specification, identification, estimation, goodness of fit, and respecification.

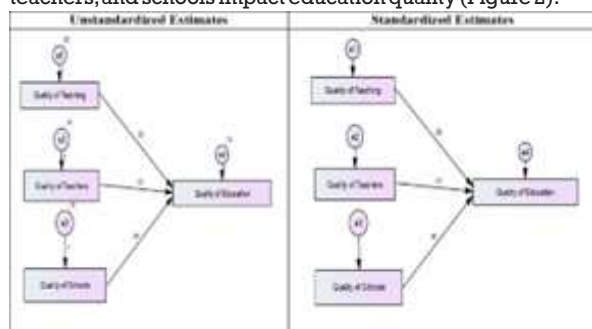
Model Specification

According to Violato and Hecker (2007), SEM allows the analysis of complex variable relationships. Based on a study of 50 Catholic schools, Quality of Education was the dependent variable, with Quality of Teaching, Teachers, and Schools as independent variables. A conceptual model was formed accordingly (Figure 1).


Figure 1. Theoretical Framework

Estimate The Model

SEM estimates parameters using sample statistics through techniques such as Maximum Likelihood (ML), Generalized Least Squares, and others. Software tools display the model and results via path analysis, indicating how teaching, teachers, and schools impact education quality (Figure 2).


Figure 2. Path Analysis

Degrees of Freedom and Model Result

- Distinct sample moments: 10
- Parameters estimated: 7
- Degrees of freedom: 3
- Chi-square = 140.396, $p = .000$

This indicates a statistically significant, though not optimal, model fit.

Fit Indices

CMIN/DF

A CMIN/DF ≤ 3 with $p > 0.05$ is acceptable (Kline, 1998). This study's CMIN/DF is 46.799 ($p < 0.05$), suggesting a marginal fit.

RMSEA

RMSEA was 0.303 with PCLOSE = .000, above the preferred ≤ 0.05 threshold (Browne & Cudeck, 1993), indicating poor fit.

Nonetheless, it confirms that Quality of Teachers and Schools positively influence Education Quality.

Goodness of Fit Index (GFI)

GFI was .890—close to the acceptable ≥ 0.9 mark—indicating a reasonable but suboptimal fit (Joreskog & Sorbom).

Comparative Fit Index (CFI)

CFI was 1.000, reflecting an excellent model fit.

Tucker-Lewis Index (TLI)

TLI was 0.080—well below the 0.95 threshold—indicating poor fit and model complexity.

Regression Weights

Regression weights and critical ratios ($CR > 1.96$) confirmed that Quality of School and Teachers significantly impact Quality of Education ($p < 0.05$), while Quality of Teaching does not. Standardized weights validated this.

Findings and Recommendations

- Quality of School and Teachers significantly influence Education Quality.
- Teachers' performance improves student achievement.
- Regular training and motivation for teachers are essential to enhance service quality.

Limitations

The study examined only three variables—Teaching, Teachers, and School quality—as determinants of educational quality, excluding other factors. Additionally, it used a sample of 50 Catholic schools out of 207 in Nagaland.

CONCLUSIONS

This study highlights the role of effective teaching, teacher competency, and school environment in enhancing educational quality. It emphasizes the need for ongoing teacher development and supportive environments to boost engagement and achievement. Though focused on Catholic schools in Nagaland, the findings have broader implications. Future studies should examine additional variables and contexts.

Acknowledgment

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Conflict Of Interest:

The authors conducted the research review independently, without any commercial or economic affiliations that could be perceived as creating a conflict of interest.

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