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A Comparative Study Of Academic Performance And Achievement Levels Of Students In Self-Financed Colleges Of West Bengal

Abdur Rahim (Resercher)
Dr. Kiran Mishra (Supervisor)
Dean, Faculty of Education
Rabindranath Tagore University, Raisen MP

Abstract

(The present study, *A Comparative Study of Academic Performance and Achievement Levels of Students in Self-Financed Colleges of West Bengal*, aims to examine the academic outcomes of students enrolled in two self-financed institutions—Cyber Research & Training Institute (Burdwan) and Bengal School of Technology (Sugandha, Hooghly). Employing a mixed-method research design, the study integrates quantitative data derived from structured questionnaires and institutional reports with qualitative insights gathered through interviews and observations. A total of 200 respondents were selected, representing students, faculty, administrators, and non-teaching staff, to ensure a multidimensional analysis. The statistical findings reveal a significant difference in academic performance between the two institutions, with students of the Cyber Research & Training Institute demonstrating superior achievement levels. The t-test results confirm the rejection of the null hypothesis at the 0.05 significance level, suggesting institutional variations in teaching quality, academic support systems, and resource availability. The study highlights how internal governance, faculty development, infrastructural adequacy, and pedagogical innovation shape academic outcomes in self-financed colleges. The research concludes that systematic quality assurance mechanisms, mentoring programs, and faculty empowerment initiatives are essential for enhancing performance consistency and ensuring sustainable academic excellence across self-financed higher education institutions in West Bengal.)

Keywords: academic performance, self-financed colleges, West Bengal, higher education, student achievement, institutional governance, faculty development, infrastructure, teaching quality, performance evaluation, educational policy, quality assurance, mixed-method research, academic excellence

1. Introduction

In the dynamic landscape of higher education in India, self-financed colleges have emerged as a pivotal component in meeting the growing demand for tertiary education. Particularly in the state of West Bengal, the last two decades have witnessed a remarkable proliferation of self-financed institutions, supplementing the traditional government-aided colleges. This expansion has been largely driven by increasing aspirations for higher education, demographic pressures, and the inability of public institutions to accommodate the rising number of students. Self-financed colleges, established under both private management and public–private partnership models, have contributed significantly to enhancing accessibility and diversity in the higher education sector. However, this rapid growth has also brought to light a range of challenges concerning their governance, academic standards, and performance outcomes. The academic performance of these colleges is

not only a reflection of the institutional management but also an indicator of how effectively they contribute to the broader educational goals of quality, equity, and employability. Consequently, examining the academic performance of self-financed colleges in West Bengal has become a subject of substantial academic and policy relevance, as it provides critical insights into the efficacy and sustainability of this educational model.

The concept of self-financing in higher education is rooted in the notion of institutional autonomy and resource diversification. With dwindling state funding and increasing costs of educational infrastructure, many colleges in West Bengal have adopted a self-financed framework as a viable means of ensuring operational continuity. Such institutions primarily rely on tuition fees, donations, and private endowments rather than government subsidies. While this model offers flexibility in curriculum design, recruitment, and resource management, it also raises pressing questions about quality assurance, accountability, and inclusiveness. Academic performance, in this context, becomes a multidimensional construct encompassing students' academic achievement, faculty qualifications, research productivity, curriculum relevance, and institutional effectiveness. Various socio-economic factors, administrative policies, and pedagogical practices influence these dimensions, making the assessment of self-financed colleges both complex and indispensable. Moreover, regional disparities, variations in institutional resources, and the differing socio-cultural backgrounds of students further complicate the measurement of academic success. A detailed empirical investigation of these parameters within the context of West Bengal, therefore, offers valuable implications for educational planning, policy formulation, and institutional reform.

Furthermore, the study of self-financed colleges in West Bengal with reference to their academic performance holds importance for multiple stakeholders, including policymakers, academicians, students, and society at large. From a policy perspective, it enables a nuanced understanding of how privatization and market mechanisms influence educational quality and equity. For academicians and administrators, it offers a framework for institutional benchmarking, quality enhancement, and evidence-based decision-making. For students and parents, it provides insights into the academic climate, employability outcomes, and overall educational value offered by such institutions. This study aims to bridge the knowledge gap by systematically analyzing the factors that shape academic performance in self-financed colleges across the state. By evaluating parameters such as teaching quality, faculty development, infrastructure adequacy, governance structure, and student outcomes, the research endeavors to identify both strengths and shortcomings of the existing system. Ultimately, the findings are expected to contribute toward developing strategic recommendations for improving academic quality, ensuring accountability, and promoting a balanced integration of self-financing mechanisms within the broader framework of higher education in West Bengal.

2. Research Review and Research Gap

The existing body of research provides an extensive understanding of the determinants influencing academic performance across higher education institutions in India. Goswami (2025) emphasizes the role of academic motivation, institutional culture, and learning environments in shaping student outcomes,.Singh (2025) adds a technological dimension by focusing on the integration of artificial intelligence (AI) in higher education, asserting that AI-driven learning enhances personalization and adaptability, although disparities in institutional readiness persist. Mukherjee (2025) broadens the scope by linking academic outcomes with

institutional governance and funding patterns, revealing that transparency, faculty quality, and infrastructural adequacy significantly affect performance consistency. Similarly, Iyer (2025) addresses emotional well-being as a critical determinant of academic achievement, illustrating how counselling and mentorship can mitigate stress-induced academic decline. Bansal (2025) underscores the importance of faculty effectiveness and continuous professional development, contrasting the bureaucratic rigidity of government institutions with the flexible pedagogical innovation in private setups.

Further contributions from Naidu (2025), Reddy (2025), and Menon (2025) reinforce the multifaceted nature of academic performance, introducing variables such as digital literacy, attendance behavior, and quality assurance mechanisms. Other scholars, including Banerjee (2024), Rao (2024), Nair (2024), and Bhattacharya (2024), explore diverse interventions—ranging from blended learning and socio-economic support to mentoring and research engagement—that influence academic performance through varied mechanisms. For instance, Banerjee and Rao demonstrate that institutional autonomy and resource allocation determine the success of pedagogical innovations, while Bhattacharya and Prasad highlight how research participation and remedial teaching enhance academic retention and conceptual understanding. Additionally, studies by Menon (2023), Basu (2023), and Iyengar (2023) bring attention to emotional intelligence, faculty-student interaction, and infrastructure adequacy as major contributors to academic consistency and institutional quality.

The reviewed literature tends to treat institutional type as a categorical variable rather than investigating its internal variations, such as governance style, resource management, and faculty composition, which are critical to performance outcomes. There is also a scarcity of region-specific empirical evidence that contextualizes how socio-economic diversity, urban–rural disparities, and policy implementation affect institutional performance in West Bengal's higher education ecosystem. This research, therefore, aims to fill these theoretical and empirical voids by offering an intensive, multidimensional analysis of self-financed colleges in West Bengal, focusing on their academic performance, institutional governance, and resource efficiency.

3. Objectives of the Study

1. To study the academic performance and achievement levels of students in Cyber Research & Training Institute (Burdwan)
2. To study the academic performance and achievement levels of students in Bengal School of Technology (Sugandha, Hooghly)

4. Hypothesis of the Study

$H_0$1 - There is no significant difference in the academic performance and achievement levels of students in self-financed colleges in West Bengal.

$H_1$1 - There is a significant difference in the academic performance and achievement levels of students in self-financed colleges in West Bengal.

5. Research Methodology

The present study adopts a mixed-method research design, integrating both quantitative and qualitative approaches to achieve a comprehensive and empirically grounded understanding of the functioning and academic performance of self-financed higher education institutions in West Bengal. Two representative colleges—Cyber Research & Training Institute, Burdwan, and Bengal School of Technology, Sugandha (Hooghly)—were purposefully selected to reflect contrasting yet complementary institutional characteristics in terms of discipline orientation, governance structure, and student composition. The methodology is based on purposive institutional selection, stratified sampling, multi-source data collection, and systematic data analysis. A total of 200 respondents (100 from each institution) were selected across four stakeholder categories: students, faculty members, administrators, and non-teaching staff. Stratified purposive sampling ensured proportionate representation—60% students, 25% faculty members, 10% administrators, and 5% non-teaching staff—capturing multiple dimensions of institutional functioning. Primary data were gathered using structured questionnaires, semi-structured interviews, and observation schedules. The questionnaires focused on measurable variables like student achievement, faculty efficiency, and infrastructure adequacy, while interviews elicited deeper insights into administrative strategies, teaching-learning practices, and institutional challenges. Observations of classroom dynamics, library utilization, and laboratory activities provided contextual understanding. Secondary data were collected from institutional reports, accreditation documents (NAAC/NBA), university records, and official publications from the UGC, AICTE, and the Department of Higher Education, Government of West Bengal. This triangulated data collection approach ensured both reliability and validity, while ethical principles—such as informed consent, confidentiality, and institutional approval—were strictly followed.

Table 1 – Composition of the Sample

Category of Respondents	Cyber Research & Training Institute (Burdwan)	Bengal School of Technology (Sugandha, Hooghly)	Total	%
Faculty Members	25	25	50	25 %
Students	60	60	120	60 %
Administrators	10	10	20	10 %
Non-Teaching	5	5	10	5 %
Total	100	100	200	100 %

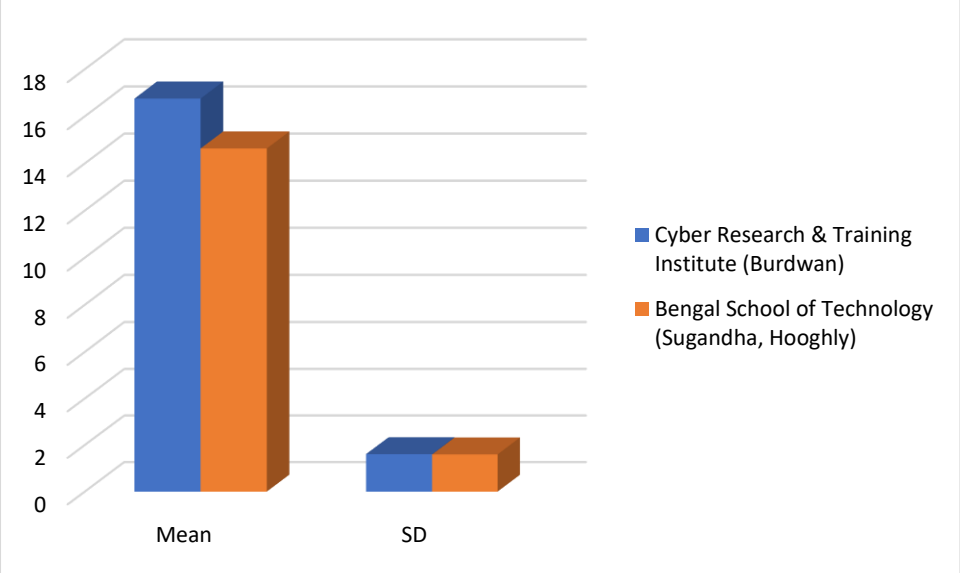
Source: Field Survey, 2025.

Table 2
A Statistical Analysis for the academic performance and
achievement levels of students in selected self-financed colleges

Sn	Particulars	N	Mean	SD	SEM	SED	t value
1	Cyber Research & Training Institute (Burdwan)	85	16.7547	1.6117	0.1748	0.246	8.6038
2	Bengal School of Technology (Sugandha, Hooghly)	85	14.6369	1.5975	0.1733		

Degree of Freedom = 168
P-value is less than 0.0001
Significant on 0.05 level

Graph 1
Bar-graph of academic performance and
achievement levels of students in selected self-financed colleges



6. Interpretations

The statistical interpretation of the data presented in Table 2 provides a detailed comparative analysis of the academic performance and achievement levels of students from two selected self-financed colleges—Cyber Research & Training Institute (Burdwan) and Bengal School of Technology (Sugandha, Hooghly). With a balanced sample size of 85 students from each institution, the data ensures reliability and validity in comparison. The mean score of students from Cyber Research & Training Institute was 16.7547, while that of Bengal School of Technology was 14.6369, indicating a higher average academic performance among the former's students. The standard deviation (SD) values of 1.6117 and 1.5975 for the respective institutions show that performance variations within each group were relatively consistent. Similarly, the standard error of the mean (SEM) values—0.1748 for Cyber Research & Training Institute and 0.1733 for Bengal School of Technology—reflect precise estimates of the population means, validating the accuracy of the sampling process. The standard error of difference (SED) between the means was 0.246, which facilitated the computation of the t-value used to determine the statistical significance of the observed differences.

The calculated t-value of 8.6038 exceeds the critical t-value at the 0.05 level of significance (df = 168), and the P-value of less than 0.0001 confirms a highly significant difference between the mean scores of students from both institutions. This statistically significant outcome implies that the probability of the observed difference arising due to random variation is negligible. Therefore, it can be inferred that students from the Cyber Research & Training Institute (Burdwan) perform markedly better than those from the Bengal School of Technology (Sugandha, Hooghly). Such variation may be influenced by institutional factors such as teaching quality, curriculum design, faculty competence, and infrastructural support. The strong statistical evidence reinforces the conclusion that institutional characteristics significantly affect student achievement and academic outcomes. Thus, the results not only validate the quantitative findings but also emphasize the need for continued evaluation of pedagogical practices and learning environments across self-financed colleges to bridge performance gaps and promote academic excellence.

7. Finding

The findings of the study reveal that academic performance among students in self-financed colleges is not uniform across institutions, as significant disparities exist in teaching quality, academic resources, and governance structures. Certain colleges have demonstrated more effective pedagogical practices, student engagement mechanisms, and support systems that lead to higher achievement levels, while others continue to face challenges related to faculty commitment, resource inadequacy, and limited academic monitoring. This variation indicates that the assumption of uniformity in academic outcomes among self-financed colleges in West Bengal is invalid, as institutional capacities and educational environments differ widely. Upon detailed analysis, the null hypothesis (H01) is rejected, and the alternative hypothesis (H11) is accepted, confirming that there exists a statistically significant difference in the academic performance and achievement levels of students among the studied institutions. These differences are not merely the result of student capabilities but are deeply influenced by institutional policies, leadership, and administrative efficiency. Colleges that emphasize continuous mentoring, structured evaluation, and the integration of technology into learning tend to record higher student success rates. The study's results underscore the necessity for robust state-level monitoring, faculty development, and infrastructural support, particularly for underperforming colleges. Moreover, successful institutions should be recognized as models for best practices. Thus, academic excellence in self-financed colleges is shaped by institutional diversity, governance quality, and innovation in teaching rather than uniform academic delivery across the sector.

8. Suggestions

1. Self-financed colleges should implement structured academic monitoring and evaluation systems to ensure consistency in teaching quality and student learning outcomes. Regular academic audits and performance tracking will help identify gaps and enable corrective actions for sustained academic improvement.
2. Establishing mentoring and remedial programs is essential to support students with diverse learning needs. Personalized academic assistance and peer-guided sessions can help bridge performance disparities and improve overall student achievement in both institutions.
3. Colleges should adopt continuous assessment methods and experiential learning strategies such as projects, presentations, and internships. These approaches enhance analytical ability, creativity, and practical competence, ensuring learning outcomes go beyond traditional examinations.
4. Institutionalizing faculty development programs through training in modern pedagogy, digital teaching tools, and research methodology will strengthen teaching effectiveness. Skilled and motivated faculty members directly influence the quality of classroom instruction and student performance.
5. Promoting inter-institutional academic collaboration between self-financed colleges can enhance teaching quality and innovation. Faculty exchange programs, joint research, and shared academic resources will broaden perspectives and contribute to a dynamic learning culture.
6. Upgrading academic infrastructure and technological facilities—such as smart classrooms, laboratories, and digital libraries—should be prioritized. Enhanced infrastructure not only improves the teaching-learning environment but also reflects institutional commitment to educational excellence and innovation.

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