

Quality of Primary Education in a Sub-District of Bangladesh: Situational Assessment and Pathways for Improvement

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Abstract: This study examines the condition of primary education in Kaliakair Upazila (sub-district), Gazipur, Bangladesh, to understand its major challenges and propose solutions for improving learning quality. Although Bangladesh has made notable progress in expanding access to free and compulsory primary education, areas like Kaliakair continue to struggle with teacher shortages, overcrowded classrooms, and infrastructural and socioeconomic constraints. Using a mixed-method approach, the study combined quantitative indicators such as dropout trends, attendance, and student–teacher ratios with qualitative insights gathered from 50 stakeholders, including students, parents, teachers, officials, and community representatives. Data were analyzed using SPSS and supported by clear graphical presentations, while ethical standards ensured participation, consent, and confidentiality.

Findings reveal that, despite a moderate literacy rate of 60.6%, the teacher–student ratio stands at an unsatisfactory 1:50, far above national norms, contributing to unequal learning opportunities and excessive teacher workload. Dropout patterns fluctuated over recent years, influenced by COVID-19, economic pressures, and community recovery measures, while attendance remained comparatively high for both boys and girls. Stakeholders expressed mixed levels of satisfaction with education quality, with concerns centered on infrastructure gaps, curriculum instability, shortages of teachers and materials, sanitation issues, and unreliable electricity, which affects the use of multimedia classrooms. Additional challenges include poverty-driven learning barriers, limited playgrounds, and inadequate monitoring due to staff shortages.

The study highlights strong community support for addressing electricity problems, increasing classrooms, expanding teacher recruitment, improving salaries, introducing mid-day meals, and ensuring sufficient learning and sports materials. These findings point to the need for targeted reforms in resource allocation, infrastructure, curriculum stability, and governance to strengthen the overall quality of primary education in Kaliakair Upazila in line with national policy and SDG 4.

1. INTRODUCTION

Primary education is universally recognized as a critical driver of social and economic development, laying the foundation for lifelong learning and skill acquisition. In Bangladesh, primary education refers to the first stage of formal education, covering Class 1 to Class 5, typically for children aged 6 to 10 years. It is free and compulsory for all children, as mandated by the Primary Education (Compulsory) Act of 1990 (Government of Bangladesh, 1990). The government aims to ensure universal access, equity, and quality education at this level to build foundational literacy, numeracy, and life skills. In Bangladesh, the government has made significant strides in expanding access to primary education, supported by policies aligned with the Sustainable Development Goals (SDG 4), which emphasize inclusive, equitable, and quality education for all (MoE & MoPME, 2020).

The country has witnessed remarkable progress in enrollment rates. The Gross Enrolment Ratio (GER) reached 110.48%, while the Net Enrolment Rate (NER) rose to 97.56% in 2022, demonstrating near-universal access to primary education. Gender parity has also improved, with girls accounting for 51.21% of total primary school enrollment, reflecting efforts to bridge gender gaps in education. Moreover, the dropout rate has seen a significant decline — from 39.80% in 2010 to 13.95% in 2022

— indicating improvements in retention and school completion (BANBEIS, 2024). Government initiatives such as the Primary Education Development Program (PEDP), stipend programs, and school meal schemes have contributed to this progress by addressing financial barriers, encouraging attendance, and promoting equitable learning environments (DPE, 2024b).

Despite these achievements, several challenges continue to hinder the overall quality of primary education. Teacher shortages, high student-teacher ratios, inadequate infrastructure, learning loss due to repetition rates, and socioeconomic inequalities remain pressing concerns. According to BANBEIS and DPE, the student-teacher ratio stands at 1:32 on average, but rural areas often experience worse ratios, affecting personalized learning and instructional quality (BANBEIS, 2024; DPE, 2024a). Additionally, the Primary Education Annual Sector Performance Report (2022-2023) highlighted disparities in learning outcomes across regions, linking poor performance to issues like teacher absenteeism, lack of trained educators, insufficient learning materials, and economic hardships affecting children from marginalized communities (DPE, 2024b).

Recent assessments of Bangladesh's primary education system have unveiled critical challenges impacting student proficiency. The National Student Assessment 2022, conducted by the Directorate of Primary Education and UNICEF, revealed that over 60% of third graders and 70% of fifth graders lack grade-appropriate competence in mathematics. Similarly, 51% of third graders and 50% of fifth graders do not meet the expected proficiency levels in Bangla. Contributing factors include inadequate classroom teaching, high student-teacher ratios, poor student-teacher interactions, insufficient infrastructure, and funding shortages (DPE, 2023). These findings highlight the urgent need for targeted interventions to enhance the quality of primary education in Bangladesh.

This study aims to provide a situational analysis of the primary education landscape in Bangladesh, identifying the key barriers impeding quality education and proposing actionable, stakeholder-driven recommendations for sustainable improvement. Specifically, it seeks to evaluate key educational indicators such as dropout rates, teacher-student ratios, attendance patterns, and other relevant conditions that shape learning outcomes. By exploring these diverse viewpoints, the study intends to capture stakeholder expectations and gather practical suggestions for strengthening the quality of primary education. Ultimately, the goal is to formulate realistic and actionable strategies that can guide policymakers and education authorities in improving primary education in Kaliakair Upazila (sub-district), Gazipur district. The study aligns with the country's long-term vision of achieving equitable, quality education for all, as envisioned in the National Education Policy 2010 and SDG 4.

2. OVERALL SCENARIO OF KALIAKAIR UPAZILA

Kaliakair Upazila, located in the Gazipur District, is a rapidly developing area known for its mix of urban-industrial growth and rural settlements. Spanning 314.14 square kilometers, it lies 52 km from Dhaka and 30 km from the Gazipur District headquarters. The Upazila consists of 1 municipality and 9 unions, covering 283 villages and 181 mouzas (Bangladesh National Portal, 2025).

With a population of 483,308 (Census 2011), Kaliakair reflects a balanced gender ratio: 248,219 males and 235,089 females. The population growth rate is 6.02%, and the population density is 1,539 people per square kilometer — higher than the national average. The literacy rate stands at 60.6%, which, while higher than some rural areas, still indicates room for improvement (Bangladesh National Portal, 2025).

The Upazila is a blend of agriculture, industry, and emerging urban life. 510 industries, including garment factories and manufacturing plants, fuel the local economy alongside 2,852 fisheries, 480 poultry farms, and 14,064 hectares of agricultural land. Its 23 markets and growing business landscape support a vibrant economy (Bangladesh National Portal, 2025).

Education infrastructure includes 122 government primary schools, 260 kindergartens, 13 Ebtedayee madrasas, 48 secondary schools, 6 colleges (1 government and 5 private), 2 technical institutes, and 4 Dakhil madrasas — reflecting a diverse educational setup. However, the high number of kindergartens compared to government schools suggests increased private sector reliance, possibly due to quality concerns (Bangladesh National Portal, 2025).

Healthcare facilities include 1 Upazila Health Complex, 4 sub-health centers, and 35 community clinics, ensuring basic medical services. Kaliakair also hosts 15 banks, 7 forest offices, 2 police outposts, 1 post

office, and 2 press clubs, reflecting its growing administrative and commercial importance (Bangladesh National Portal, 2025).

Natural features include 2 rivers, 46 ponds, and 64,420 acres of forestland, with 28.12% of the area covered by greenery — primarily Sal forests. The Upazila has a notable minority population of approximately 11,000 people from small ethnic groups, contributing to its cultural diversity (Bangladesh National Portal, 2025).

Kaliakair’s development is evident in its infrastructure: 242 km of paved roads and 1,108 km of unpaved roads support connectivity. Despite industrialization, the area retains its agricultural and forest roots, balancing economic growth with environmental preservation (Bangladesh National Portal, 2025).

In summary, Kaliakair Upazila presents a dynamic combination of industrial growth, rural life, and educational diversity. However, challenges remain in improving education quality, infrastructure, and equitable access to resources, especially in its rural regions (Bangladesh National Portal, 2025).

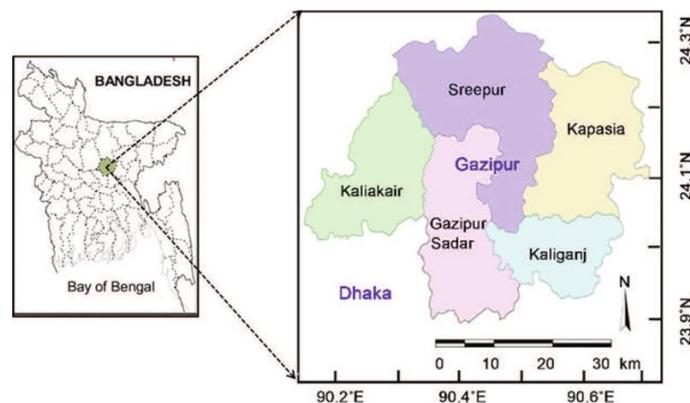


Figure 1. Location of the study area (Kaliakair)

3. METHODOLOGY

3.1. Study design

The study employed a mixed-method approach, integrating both quantitative and qualitative data collection methods to ensure a comprehensive understanding of the primary education landscape in Kaliakair Upazila. A structured questionnaire was developed, incorporating both closed-ended and open-ended questions to capture a balance of statistical data and in-depth insights from respondents.

Quantitative data focused on measurable indicators such as enrollment rates, dropout rates, student attendance, teacher-student ratios, and infrastructure availability.

Qualitative data explored stakeholder perspectives, challenges faced by teachers and students, and recommendations for improvement, providing contextual understanding beyond the numbers.

3.2. Sample size

The study employed a convenient sampling technique due to time constraints and school closures during Ramadan. Given these limitations, the sample size was confined to 50 respondents, selected based on accessibility and willingness to participate.

The sample included a diverse range of stakeholders to ensure a balanced representation of perspectives. Respondents comprised:

Table 1. Types and numbers of respondents

Type of respondents	Number
Students	20
Parents/Guardians	8
Primary school teachers	10
Government education officers	5
Other government employees	4
Local elites	3
Total	50

3.3. Data analysis

The collected data was analyzed using simple descriptive statistics to summarize key findings. Data entry and processing were conducted using SPSS version 26, ensuring accuracy and consistency. Descriptive statistics, including frequencies, percentages, and cross-tabulations, were employed to identify patterns and trends.

For visual clarity, graphical representations — such as line graphs and tables — were created using Microsoft Excel and Microsoft Word to present the data in an accessible, reader-friendly format.

3.4. Ethical considerations

The study adhered to essential ethical principles to ensure the rights, dignity, and privacy of all participants were respected. Informed consent was obtained from each participant after explaining the study's purpose, methods, and potential outcomes, ensuring their voluntary participation. Confidentiality and anonymity were strictly maintained by avoiding the collection of personally identifiable information, with all responses anonymized and used solely for research purposes. Participants were assured of their right to withdraw from the study at any stage without facing any consequences. The research design prioritized minimizing any potential harm — physical, emotional, or psychological — by framing sensitive questions carefully to prevent discomfort. Additionally, all collected data was securely stored, accessible only to the research team, safeguarding its integrity and privacy. These measures ensured the study upheld transparency, accountability, and respect for all involved stakeholders.

4. RESULTS AND DISCUSSION

4.1. Teacher-student ratio (TSR)

The findings reveal a significant imbalance in the TSR within Kaliakair Upazila. According to the data, 679 teachers are responsible for 33,716 students, resulting in a TSR of 1:50. This ratio starkly exceeds the national standard set by the Directorate of Primary Education (DPE), which recommends a maximum ratio of 1:40 for primary schools (DPE, 2024b). Based on the 2023 data, the TSR of government primary schools of Bangladesh is 1:29 (DPE, 2024a).

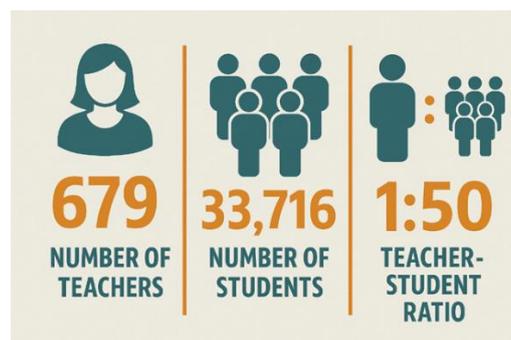


Figure 2. Teacher-Student ratio in the primary schools of Kaliakair Upazila

Such an inflated ratio presents serious challenges to ensuring quality education. Teachers become overburdened, limiting their ability to provide individualized attention, effective classroom management, and interactive teaching methods. Research indicates that smaller class sizes are associated with better student performance, improved engagement, and enhanced teacher-student interaction (Solomon, 2025).

Moreover, the overwhelming workload on teachers may lead to burnout, absenteeism, and reduced teaching quality. The situation is particularly concerning for foundational subjects like mathematics, science, and language, where personalized guidance is crucial. Without adequate support, students from disadvantaged backgrounds, who may already face learning barriers, are disproportionately affected, exacerbating educational inequalities (Agyapong et al., 2022; Kanwal et al., 2023; Magtalas, 2024).

4.2. Student drop-out rates

The analysis of student dropout rates in Kaliakair Upazila from 2022 to 2024 shows a fluctuating yet ultimately promising trend. The dropout rate was 1.5% in 2022, increased to 1.9% in 2023, but then

significantly dropped to 0.36% in 2024. This sharp decline marks a notable improvement, suggesting that interventions and local efforts may have started yielding positive results as it is way lower than the national level dropout rate (13.95% in 2022) (DPE, 2024b).

The rise from 2022 to 2023 likely reflects lingering impacts of COVID-19 disruptions, economic difficulties, and school closures, which forced many families to prioritize income generation over education. Additionally, issues like teacher shortages, overcrowded classrooms, and lack of engaging learning environments may have contributed to student disengagement during this period (Kamrujjaman et al., 2024).

However, the 0.36% dropout rate in 2024 represents a significant turnaround. This improvement may be attributed to increased community awareness, government incentives like stipend programs, and local NGO interventions aimed at supporting vulnerable students. The decline could also reflect improvements in school infrastructure, teacher recruitment efforts, and student support programs, which made schooling more accessible and appealing (Bangladesh Planning Commission, 2020).

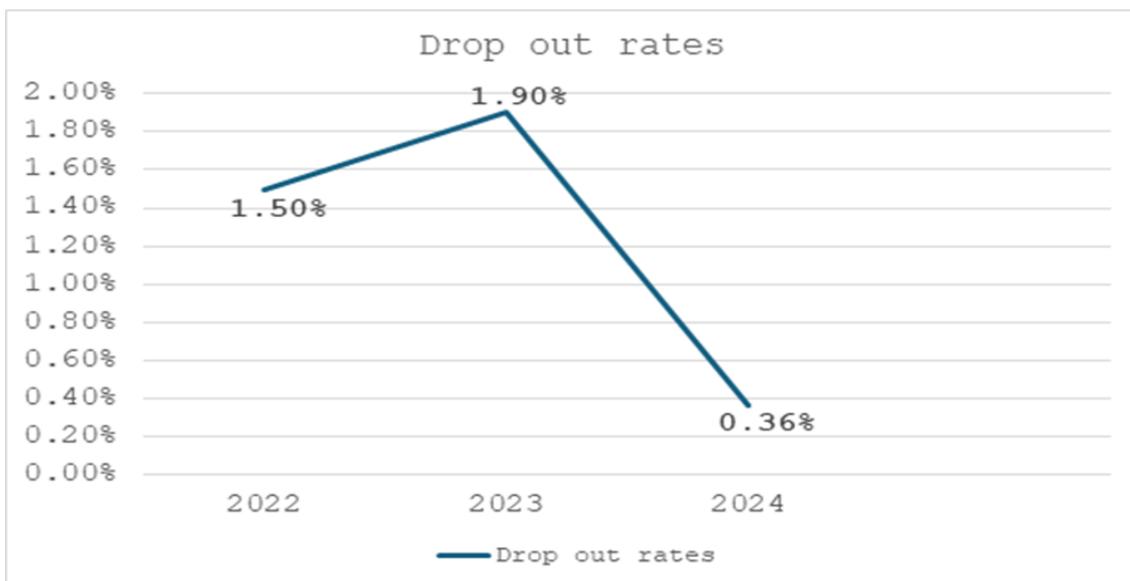


Figure 3. Student drop-out rates in Kaliakair Upazila (2022-2024)

4.3. Percentage of students' class attendance

Class attendance is a crucial indicator of student engagement and the overall effectiveness of the learning environment. Data collected from five government primary schools in Kaliakair Upazila reveals an encouraging trend in class attendance rates, with male students averaging 87.2% and female students slightly outperforming at 89%. The data reflects strong attendance rates across all classes, particularly for female students, who consistently showed higher attendance than their male counterparts. This aligns with national trends (87.7% for males and 88.4% for females), where initiatives like stipend programs for girls and community awareness campaigns have contributed to improved female attendance and enrollment (DPE, 2024b).

Table 2. Percentage of students' class attendance in Kaliakair Upazila (data from five schools)

Class	Male student attendance (%)	Female student attendance (%)
One	85	87
Two	86	90
Three	87	89
Four	90	90
Five	82	89
Overall	87.2	89

4.4. Comparison of the numbers of male and female primary school students of Kaliakair Upazila

The analysis of student enrollment across Kaliakair Upazila's primary schools reveals a consistent gender imbalance in favor of female students. The total number of enrolled students stands at 33,716,

comprising 16,400 male students (48.6%) and 17,316 female students (51.4%). This exactly aligns with the national level data (DPE, 2024a).

Across all classes, female enrollment surpasses male enrollment, with the gap becoming more pronounced in the upper grades — particularly in Class Five, where 52.6% of students are female, compared to 47.4% male. This trend is observable from Class One onward, with female percentages steadily ranging between 51.3% and 52.6%. The only exception is at the pre-primary level, where the gender ratio is almost balanced (50.4% male, 49.6% female), reflecting equal early enrollment efforts.

The higher proportion of female students can be linked to government-led incentives like stipend programs targeted at encouraging girls' education, as well as community awareness campaigns emphasizing gender equality in education. Moreover, cultural shifts in rural areas like Kaliakair Upazila may be contributing to higher female participation, particularly where families increasingly value girls' education as a path to economic empowerment and social mobility (Khandker et al., 2021).

However, while the higher female enrollment is encouraging from a gender equity standpoint, the slightly lower male participation warrants attention. Possible contributing factors could include boys being drawn into labor — especially in industrial areas like Kaliakair.

Table 3. Number of male and female primary school students in Kaliakair Upazila

Class	Male students	%	Female students	%	Total number
Pre-primary	2,600	50.4	2,558	49.6	5,158
One	2,630	48.1	2,834	51.9	5,464
Two	2,860	48.7	3,008	51.3	5,868
Three	2,849	48.6	3,009	51.4	5,858
Four	2,835	48.4	3,028	51.6	5,863
Five	2,626	47.4	2,914	52.6	5,540
Total	16,400	48.6	17,316	51.4	33,716

4.5. Satisfaction regarding the quality of primary education

The assessment of stakeholder satisfaction regarding the quality of primary education in Kaliakair Upazila revealed mixed perceptions, with 62% of respondents expressing satisfaction and 38% reporting dissatisfaction. Among students, 75% (15 out of 20) felt the education quality was satisfactory, reflecting a generally positive learning experience, although 25% indicated dissatisfaction, suggesting engagement or learning challenges for some. Parents and guardians showed a lower satisfaction rate, with only 37.5% (3 out of 8) satisfied, highlighting concerns about learning outcomes, teacher availability, or school facilities. In contrast, 80% (8 out of 10) of primary school teachers felt the education quality was satisfactory, possibly reflecting their dedication despite resource constraints and high student-teacher ratios. Similarly, 80% (4 out of 5) of government education officers expressed satisfaction, indicating confidence in ongoing educational initiatives. However, only 1 out of 3 local elites expressed satisfaction, signaling an outsider perspective that perceives gaps in service delivery and system performance. This divide between teachers' confidence and parents' dissatisfaction points to a perception gap — while educators may feel they are doing their best with limited resources, parents and community members might evaluate quality based on academic results and future prospects for students.

Table 4. Satisfaction of the stakeholders regarding the quality of primary education

Types of respondent	Is the quality of primary education in Kaliakair upazilla satisfactory?	
	Yes	No
Students (n=20)	15	5
Parents/Guardians (n=8)	3	5
Primary school teachers (n=10)	8	2
Government education officers (n=5)	4	1
Other government employees (n=4)	0	4
Local elites (n=3)	1	2
Overall	31 (62%)	19 (38%)

4.6. Challenges impeding the improvement of the quality of primary education perceived by the stakeholders

The study identified several key challenges perceived by stakeholders as barriers to improving the quality of primary education in Kaliakair Upazila. Among the 50 respondents, the most frequently reported challenge was electricity problem, cited by 92% of participants, followed by shortage of teachers (86%). This aligns with the earlier finding of a 1:50 teacher-student ratio, highlighting how an overburdened teaching workforce limits personalized attention and reduces the overall quality of instruction (DPE, 2023).

Frequent curriculum changes were reported by 80% of respondents, indicating that inconsistent educational content disrupts learning continuity, leaving both teachers and students struggling to adapt. Excessive student numbers (76%) and classroom shortages (70%) further compound this issue, resulting in overcrowded classrooms that hinder effective teaching, reduce student engagement, and diminish learning outcomes (DPE, 2023).

Infrastructure-related issues also emerged as significant barriers. Inadequate sanitation facilities were reported by 60% of respondents, posing hygiene concerns that particularly affect female students, contributing to absenteeism. Similarly, 70% of stakeholders highlighted the absence of playgrounds, which limits physical activity and recreational opportunities — essential components of holistic child development (DPE, 2023).

Economic challenges were also prevalent, with 64% of respondents pointing to poverty among students as a critical factor. Families struggling with financial hardship often prioritize income over education, leading to irregular attendance or early dropouts. Additionally, 54% of stakeholders mentioned a shortage of educational materials, such as textbooks and learning aids, which further compromises the learning environment. Finally, 76% of respondents noted teacher absenteeism as a major challenge. This issue, combined with the existing teacher shortage, worsens classroom management problems and disrupts learning continuity.

Addressing these interconnected challenges requires a multi-faceted approach. Increasing teacher recruitment and professional training, ensuring curriculum stability, improving school infrastructure, and providing targeted financial support to disadvantaged students are crucial steps. Moreover, strengthening accountability mechanisms to reduce teacher absenteeism and promoting community involvement in school management can help create a more supportive and resilient education system.

Table 5. *Challenges Impeding the Improvement of Primary Education in Kaliakair Upazila perceived by the stakeholders*

Perceived challenges	Number of reports from respondents	Percentage (%)
Frequent curriculum change	40	80
Classroom shortage	35	70
Excess number of students	38	76
Shortage of teachers	43	86
Inadequate sanitation system	30	60
Shortage of educational materials	27	54
Poverty among students	32	64
Absence of playgrounds	35	70
Absenteeism of teachers	38	76
Electricity problem	46	92

4.7. Opinions of the stakeholders for improving the quality of primary education in Kaliakair Upazila

4.7.1. Opinions of the students

Students (n=20) highlighted two key areas for improvement. 70% (14 out of 20) advocated for increasing the number of classrooms, reflecting their firsthand experience with overcrowded learning environments — an issue already underscored by the 1:50 teacher-student ratio. Smaller, more manageable class sizes could foster better teacher-student interaction and improve learning outcomes.

Additionally, 75% (15 out of 20) of students emphasized the need to solve the electricity problem. This ties directly to the underutilization of multimedia classrooms, which remain ineffective during frequent

loadshedding. In the scorching summer months, loadshedding emerges as a significant barrier to effective learning in Kaliakair Upazila. When fans stop working due to power outages, classrooms become unbearably hot and stuffy, making it extremely difficult for students to concentrate on lessons.

Table 6. *Students' (n=20) Opinions for Improving the Quality of Primary Education*

Opinions given	Number of reports from respondents	Percentage (%)
Increasing the number of classrooms	14	70
Solving electricity problem	15	75

4.7.2. Opinions of the other stakeholders

Other stakeholders (n=30), including teachers, education officers, parents, and community leaders, proposed a range of reforms addressing infrastructure, resource allocation, and policy improvements to uplift the quality of primary education in Kaliakair Upazila. A striking 90% of respondents prioritized solving the electricity problem, aligning with students' concerns about multimedia classrooms remaining unused during frequent loadshedding — stressing that reliable electricity is vital for modern, technology-enhanced learning. Additionally, 73.3% supported increasing the number of classrooms, acknowledging the pressing need to reduce overcrowding and create a more conducive learning environment. Recognizing the link between nutrition and learning, 56.6% advocated for introducing a mid-day meal program, emphasizing how hunger disrupts concentration and attendance, particularly for economically disadvantaged students — a program that could enhance both nutrition and academic performance. To address teacher dissatisfaction and absenteeism, 80% of stakeholders emphasized upgrading teachers' pay scales, recognizing that low salaries contribute to demotivation and staff shortages.

A better pay structure, they argued, could attract and retain skilled, passionate educators. Moreover, 70% supported increasing the number of teachers and education officers, echoing earlier findings on teacher shortages and inconsistent school monitoring — a move that could reduce class sizes, improve student engagement, and ensure regular supervision. Further, 66.6% of respondents called for increasing the development budget for primary education, highlighting the urgent need for better infrastructure, facilities, and learning materials to enhance the overall school environment. Lastly, 60% stressed the importance of adequate supplies of educational and sports materials, recognizing the role of co-curricular activities in holistic student development — an area often overlooked but essential for nurturing social, physical, and cognitive growth alongside academics. These stakeholder-driven recommendations present a comprehensive roadmap for addressing key challenges and enhancing the quality of primary education in Kaliakair Upazila.

Table 7. *Other Stakeholders' (n=30) Opinions for Improving the Quality of Primary Education*

Opinions given	Number of reports from respondents	Percentage (%)
Increasing the number of classrooms	22	73.3
Solving electricity problem	27	90
Introducing mid-day meal	17	56.6
Upgradation of the pay-scale of the teachers	24	80
Increasing the number of teachers and education officers	21	70
Increasing the development budget of the primary education	20	66.6
Adequate supply of education and sports materials	18	60

4.8. Additional Insights on Primary Education in Kaliakair Upazila

The study uncovered several key operational challenges and insights affecting the quality of primary education in Kaliakair Upazila.

- Firstly, while all 122 schools are equipped with dedicated multimedia classrooms, their effectiveness is severely hindered by frequent loadshedding. This limits teachers' ability to integrate technology into lessons, reducing opportunities for interactive, visual-based learning — which is crucial for enhancing student engagement and comprehension.

- Additionally, all interviewed teachers (n=10) reported holding regular meetings with parents. Despite this effort, a satisfaction gap remains between parents and teachers regarding education quality.
- The absence of the mid-day meal program emerged as another significant finding. Research consistently shows that school meal programs improve attendance, concentration, and nutrition, particularly in low-income communities. Introducing such a program could boost student retention and enhance learning outcomes by addressing hunger-related distractions during class.
- Interestingly, while all 20 students interviewed stated they enjoy attending school, the attendance rate data did not align with these claims.
- On a positive note, stipends are being regularly provided to students, as confirmed by students, teachers, and education officers alike. This initiative supports financially vulnerable families, helping to reduce dropout rates.
- Finally, all five education officers acknowledged that regular monitoring and evaluation of schools are inconsistent, citing a shortage of officers. Effective school supervision is crucial to maintaining teaching quality, addressing issues promptly, and ensuring accountability.

5. RECOMMENDATIONS

- Recruit more teachers to reduce the current 1:50 ratio to align with the national standard of 1:40. Priority should be given to hiring teachers specialized in math, science, and language to ensure foundational subjects receive adequate attention.
- Implement teacher retention strategies, such as salary upgrades and professional development programs, to reduce burnout and absenteeism while improving teaching quality.
- Strengthen community awareness programs to highlight the long-term benefits of education, countering social and economic pressures.
- Introduce a mid-day meal program to address hunger-related absenteeism and improve student focus and retention — especially for economically vulnerable families.
- Improve school environments, ensuring ventilation, sanitation, and playgrounds to make schools more appealing to students.
- Solve the electricity crisis by installing solar panels or backup power systems to ensure uninterrupted access to multimedia classrooms and fans — especially critical during summer.
- Expand classroom capacity to ease overcrowding by constructing new rooms or upgrading existing infrastructure.
- Recruit additional education officers to ensure more frequent, effective school monitoring and support for teachers.
- Introduce digital monitoring systems to remotely track attendance, teacher performance, and infrastructure usage — ensuring accountability despite officer shortages.
- Establish parent-teacher forums to bridge the satisfaction gap, fostering collaboration and shared responsibility for improving education quality.
- Reduce the frequency of curriculum changes to provide stability and ensure teachers have sufficient time to master and deliver content effectively.
- Provide regular teacher training focused on interactive learning techniques, technology integration, and student-centered approaches to improve engagement and learning outcomes.

6. STRENGTHS AND LIMITATIONS OF THE STUDY

The study's key strength lies in its mixed-method design, which integrates quantitative indicators such as dropout rates and attendance statistics with qualitative insights from diverse stakeholders. This combination allowed for a comprehensive and nuanced understanding of the primary education landscape in Kaliakair Upazila. By engaging students, parents, teachers, government officials, local

elites, and community representatives, the research captured a wide range of perspectives and ensured balanced stakeholder representation.

However, the study also has several limitations. The sample size was restricted to 50 respondents due to time constraints and school closures during Ramadan, which may limit the generalizability of the findings across the entire Upazila. The reliance on convenient sampling introduces the possibility of selection bias, potentially excluding hard-to-reach groups or less vocal stakeholders whose experiences may differ from those represented. Response bias is another concern, as teachers and education officers may have overstated satisfaction levels or minimized challenges due to institutional loyalty or concerns related to job security. Additionally, although the study covered 122 government primary schools, it did not include the 260 private kindergartens and non-formal education centers operating in the area. This exclusion limits the scope of the analysis and leaves an important gap regarding the role and quality of private-sector educational institutions in Kaliakair Upazila.

7. CONCLUSION

The study reveals that while Kaliakair Upazila has made strides in primary education enrollment, gender parity, and dropout reduction, serious challenges continue to undermine education quality. The 1:50 teacher-student ratio, overcrowded classrooms, frequent loadshedding, and insufficient infrastructure severely limit effective teaching and learning. Additionally, a satisfaction gap emerged between teachers — who expressed confidence in their efforts — and parents and local elites, who cited concerns over learning outcomes and school conditions. The findings underscore an urgent need for immediate action: hiring more teachers, expanding classrooms, ensuring reliable electricity, introducing mid-day meals, and strengthening school monitoring systems. Addressing these challenges is crucial to ensuring equitable, high-quality education in line with Bangladesh's National Education Policy 2010 and Sustainable Development Goal 4 (SDG 4).

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Citation: Md. Jarif Mahbub et al. "Quality of Primary Education in a Sub-District of Bangladesh: Situational Assessment and Pathways for Improvement." *International Journal of Humanities Social Sciences and Education (IJHSSE)*, vol 13, no. 1, 2026, pp. 12-22. DOI: <https://doi.org/10.20431/2349-0381.1301002>

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