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ICT-Enabled School Education: A Case Study of Government Higher Primary School, Kerkalmatti Village, Bagalkote District

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Abstract

The integration of Information and Communication Technology (ICT) in school education has become a significant driver of qualitative improvement in teaching–learning processes. Government schools in rural areas face unique challenges in adopting ICT, yet some institutions have emerged as successful models. The present study analyses the status, implementation, and effectiveness of ICT-enabled education in Government Higher Primary School, Kerkalmatti village of Bagalkote district. Using a case study method, data were collected from teachers and students through questionnaires, observation, and interviews. The study examines ICT infrastructure, teacher readiness, student engagement, and academic impact. The findings reveal that systematic ICT integration has enhanced classroom interaction, learner motivation, and instructional effectiveness, despite certain infrastructural and training limitations. The study concludes with suggestions for strengthening ICT-based education in rural government schools.

Keywords: ICT in Education, Government Schools, Rural Education, ICT Infrastructure, Case Study, Digital Literacy

1. Introduction

Information and Communication Technology (ICT) has transformed the landscape of school education by enabling interactive, learner-centered, and resource-rich instructional practices. In India, government initiatives such as ICT at Schools and digital learning programmers' aim to bridge the digital divide between urban and rural schools. However, the effectiveness of these initiatives depends largely on infrastructure availability, teacher competence, and administrative support.

Government Higher Primary School, Kerkalmatti village, Bagalkote district, has adopted ICT-enabled teaching practices and serves as a notable example of digital integration in a rural setting. This study attempts to analysis how ICT facilities are utilized and how they influence teaching and learning at the primary level.

2. Need and Significance of the Study

- To understand the real-time implementation of ICT in a rural government school
- To examine teacher and student readiness for ICT-based education

- To identify challenges in ICT integration at the primary school level
- To provide a model framework for other government schools

3. Objectives of the Study

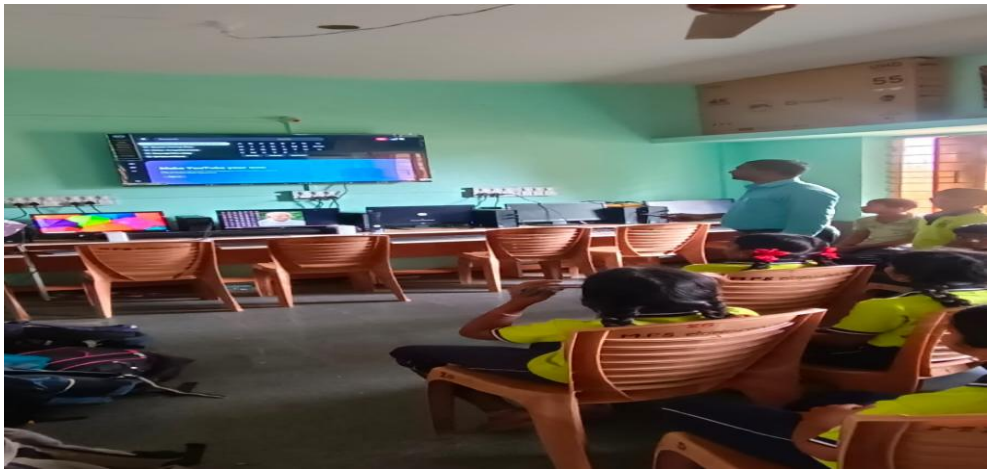
- To study the availability of ICT infrastructure in the school
- To analyze teachers' competence and attitude towards ICT usage
- To examine students' engagement and learning experiences through ICT
- To identify challenges in implementing ICT-enabled education
- To suggest measures for effective ICT integration in government schools

4. Profile of the School

Name of the School	:	Government Higher Primary School
Location	:	Kerkalmatti Village
District	:	Bagalkote
Type of School	:	Government
Medium of Instruction	:	Kannada
Classes	:	I to VIII
ICT Facilities	:	Smart Classroom, Computer Lab, Projector, Internet
Students Population	:	300 students

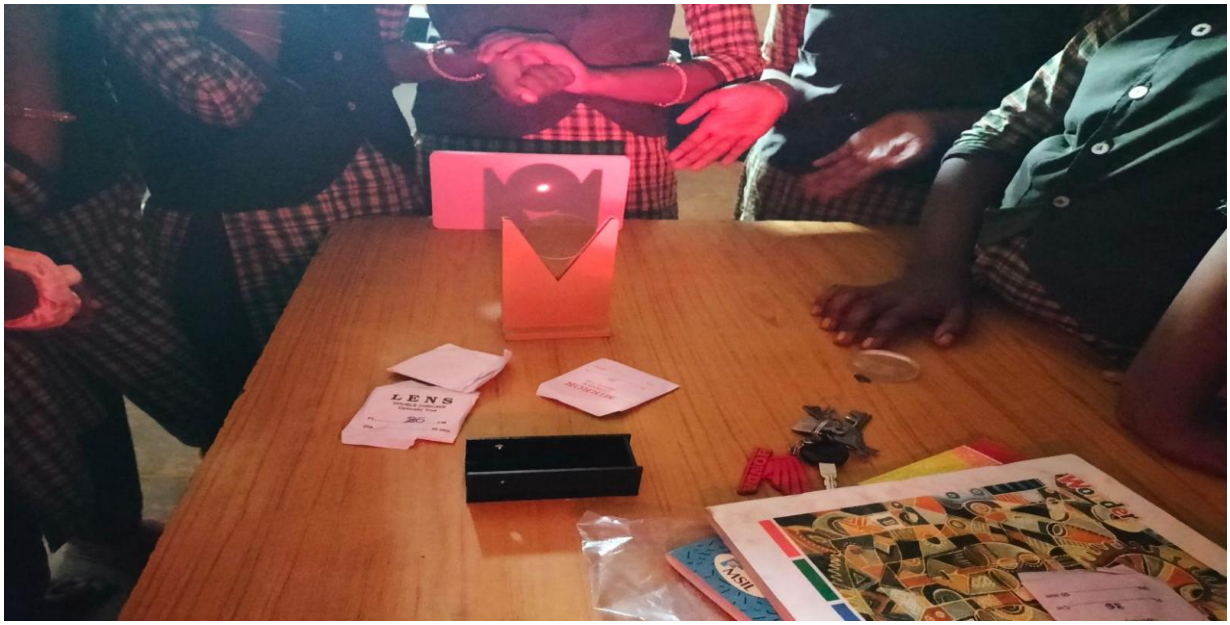
Infrastructure:

ICT Lab: Equipped With Computer, Internet Access and Educational Software



Smart Board: Installed in every Class room allowing interactive lesson

Science lab: Fully equipped with material for practical science experiments



Library: Contains Over Thousand Books Providing students with access to wide range of reading materials

Community Support: The school enjoys strong community support with parents actively involved in school events

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5. Research Methodology

Research Design	Descriptive Case Study
Area of Study	Kerkalmatti Village, Bagalkote District
Sample	10 Teachers and 60 Students
Tools Used	Questionnaire, Interview Schedule, Observation
Method of Analysis	Percentage and Descriptive Analysis

6. Analysis and Interpretation of Data

Table 1: Availability of ICT Infrastructure

ICT Facilities	Available	Not Available
Computers	10 (100%)	
Internet Facility	8 (80%)	2 (20%)
Projectors	5 (50%)	5(50%)
Smart Boards	2 (20%)	8(80%)

Interpretation: The school is well-equipped with basic ICT infrastructure, though smart boards and uninterrupted internet access need improvement.

Table 2: Teachers' ICT Competency

Level of Competency	Number of Teachers Percentage
High	4 (40%)
Moderate	5 (50%)
Low	1 (10%)
Total	10 (100%)

Interpretation:

Most teachers possess moderate to high ICT competency, indicating readiness for ICT-based instruction.

Table 3: Students' Interest in ICT-Based Learning

Response	Number of Students Percentage
Highly Interested	38 (63%)
Interested	18 (30%)
Not Interested	4 (7%)
Total	60 (100%)

Interpretation:

A majority of students show strong interest in ICT-enabled learning, reflecting its positive motivational impact.

4: Perceived Impact of ICT on Learning

Impact Area	Yes (%)	No (%)
Better Understanding	85	15
Increased Attention	78	22
Improved Academic Performance	70	30

Interpretation:

ICT tools significantly enhance comprehension, attention, and academic performance.

7. Major Findings

The school has adequate ICT infrastructure for primary-level education

Teachers show a positive attitude towards ICT integration

ICT-based teaching improves student motivation and participation

Limited internet connectivity and lack of advanced training are challenges

8. Suggestions

1. Regular ICT training programmers for teachers
2. Improvement of internet connectivity
3. Maintenance and upgrading of ICT equipment
4. Integration of ICT into daily lesson plans

5. Government support for digital content in regional languages

9. Conclusion

The case study reveals that Government Higher Primary School, Kerkalmatti village, stands as a promising model for ICT-enabled education in rural Karnataka. Despite infrastructural and training challenges, effective utilization of ICT has enriched the teaching–learning process. Strengthening teacher capacity and technological resources can further enhance educational outcomes and enable replication of this model in other government schools.

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