

Effectiveness of Self-Learning through the G-Shala App at the Secondary School Level and Quality Improvement in Education

Prakash P. Vadaria & Dr. Bhavesh Raval

Abstract

In line with the objectives of the National Education Policy (NEP) 2020, the Gujarat government introduced the G-Shala (Gujarat Students' Holistic Adaptive Learning App) as a state-level initiative to promote technology-integrated education. This paper evaluates the effectiveness of the G-Shala app in fostering self-learning among secondary school students and investigates its impact on the quality of education. It includes a review of the app's features, analysis of learner engagement, pedagogical shifts, and challenges related to infrastructure and accessibility. The paper concludes with recommendations for enhancing the effectiveness of such digital platforms to achieve Sustainable Development Goal 4: Quality Education for All.

Keywords: G-Shala App, Self-Learning, Secondary Education, Quality Education, NEP 2020, Digital Learning, Adaptive Learning, Educational Technology, Gujarat Education, Learning Management System (LMS), Student-Centered Learning, EdTech, Blended Learning, SDG 4.

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1. Introduction

The integration of technology in education has become increasingly critical in the post-pandemic world. NEP 2020 encourages the use of digital tools to foster independent and adaptive learning. The Government of Gujarat has been a pioneer in leveraging digital platforms to support students and teachers through its initiative—the *Gujarat Students' Holistic Adaptive Learning App (G-Shala)*. This paper aims to analyze the role of G-Shala in promoting self-learning and its broader implications on educational quality at the secondary level.

2. Objectives of the Study

- To assess the effectiveness of self-learning through the G-Shala app among secondary students.
- To examine the impact of the G-Shala app on the quality of education.
- To identify the challenges and limitations in the implementation and usage of the app.
- To suggest policy-level and practical recommendations for improved utilization.

3. G-Shala App: An Overview

- **Launched By:** Gujarat Council of School Education (GCSE), under the Digital Education initiative.
- **Target Users:** Students of classes 6 to 12 from state board schools.
- **Key Features:**
 - Curriculum-aligned digital content in Gujarati and English.
 - Animated videos, practice quizzes, worksheets, and virtual classrooms.
 - Teacher dashboard for tracking student progress.
 - Offline learning features.
 - Based on Learning Management System (LMS) architecture.

4. Self-Learning and NEP 2020

NEP 2020 encourages flexible and student-centric learning models. It emphasizes the importance of:

- Self-paced learning.
- Digital learning platforms for accessibility and inclusiveness.

- Personalized learning experiences using Artificial Intelligence and analytics.

G-Shala, being an adaptive LMS, fits well within this vision by enabling learners to engage with content anytime and anywhere.

5. Methodology

- **Type of Study:** Descriptive and analytical.
- **Population:** Secondary school students (Grades 9 and 10) in government schools of Rajkot District.
- **Sample Size:** 100 students and 10 teachers.
- **Tools Used:** Questionnaires, interviews, app usage data.
- **Data Collection Period:** 1 months.

6. Findings and Discussion

6.1 Effectiveness of G-Shala for Self-Learning

- **Engagement:** 75% of students reported increased interest in subjects.
- **Flexibility:** 83% appreciated the ability to revisit topics at their own pace.
- **Learning Outcomes:** Teachers observed improvement in conceptual understanding and self-confidence in 60% of the users.

6.2 Contribution to Quality Education

- **Accessibility:** Digital content available even in remote areas via offline mode.
- **Inclusivity:** Multilingual content supports diverse learners.
- **Learning Gap Reduction:** Especially beneficial during school closures.

6.3 Challenges Identified

- **Device Access:** 40% students lack personal smartphones/tablets.
- **Digital Literacy:** Some teachers and students struggle with the app interface.
- **Network Issues:** Inconsistent internet in rural areas hampers regular use.

7. Case Study: Rajkot District

A comparative analysis of two government schools (one urban, one rural) revealed:

- Urban students accessed the app more frequently (5-6 times a week) versus rural students (2-3 times).
- Teachers in urban schools were better trained in digital pedagogy.
- The rural school saw increased attendance and interest in subjects post app integration, indicating potential with proper support.

8. Policy and Pedagogical Implications

- **Training:** Continuous professional development for teachers on digital content usage.

- **Infrastructure:** Provision of affordable devices and robust connectivity.
- **Monitoring:** Real-time dashboards for tracking student progress and app usage.

9. Recommendations

- Expand device distribution under CSR and state schemes.
- Design simplified interfaces for lower-tech users.
- Conduct regular orientation programs for students and teachers.
- Collaborate with EdTech innovators for AI-powered features.
- Encourage blended learning practices.

10. Conclusion

The G-Shala app stands as a significant step toward transforming education in Gujarat by enabling self-learning and enhancing educational quality. While the results are promising, there is a need for robust infrastructural support, teacher training, and continuous evaluation to ensure equity and efficiency in learning outcomes.

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