



INTEGRATION OF MUSIC EDUCATION WITH DIGITAL LEARNING INFRASTRUCTURE IN BIHAR

INTRODUCTION

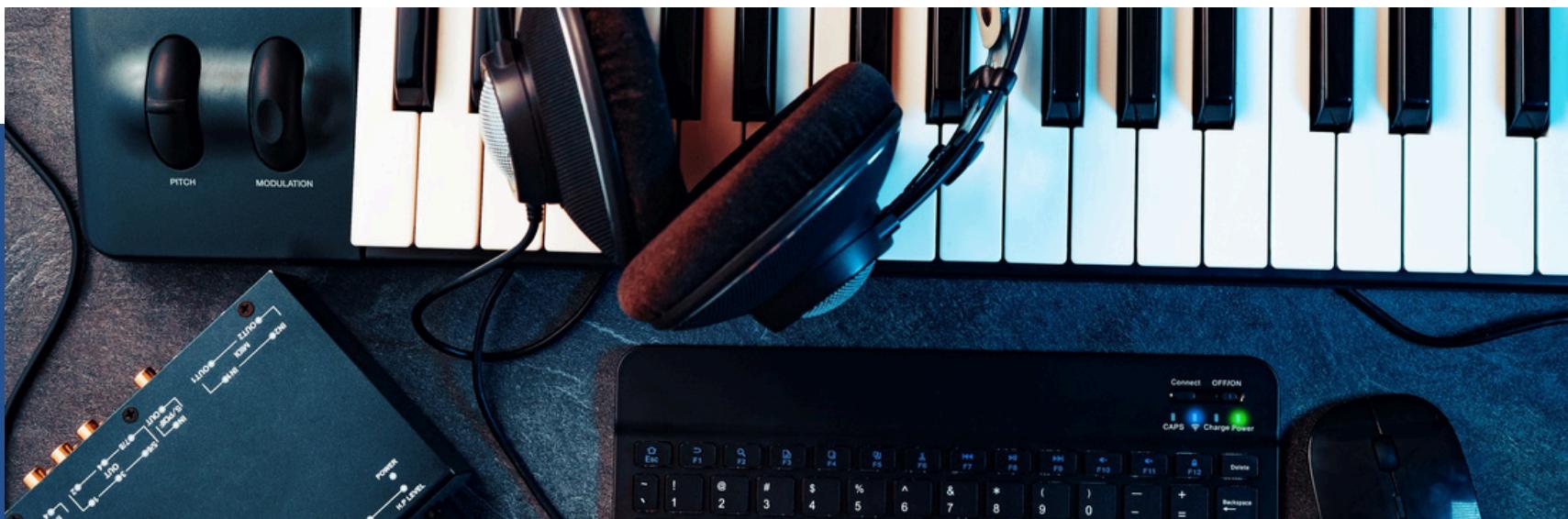


The Government of Bihar has envisioned an innovative initiative to integrate music education with digital infrastructure across the state's schools. This initiative aims to provide a robust model that blends traditional music learning with digital technology. The goal is to create an environment where students can benefit from structured music education while overcoming challenges like the shortage of qualified music teachers in rural areas.

Aligned with the National Education Policy (NEP) 2020, which stresses art-integrated learning, this program seeks to develop students' creative, cultural, and emotional abilities through music. It will cover 69,002 primary and secondary schools and 9,000 upper primary schools across Bihar, providing uniform access to music education for all students, regardless of their location.

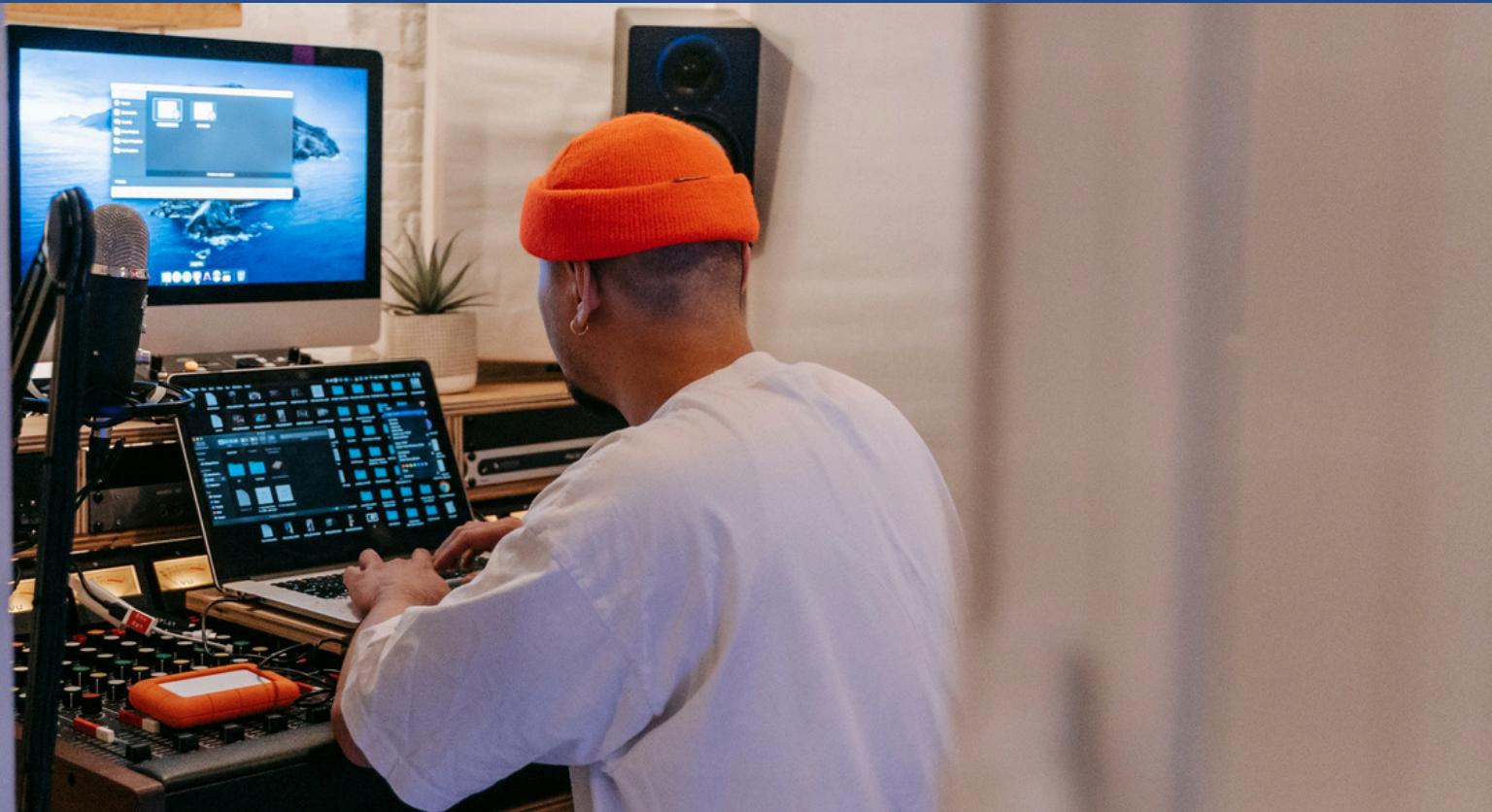
OBJECTIVES OF THE PROGRAM

- Holistic development of students through structured music education.
- Equitable access to expert music instruction using digital tools.
- Integration of digital platforms to enhance music education scalability.
- Promotion of cultural engagement and emotional development under NEP 2020.



SCHOOL-LEVEL SETUP

Each participating school will receive a tailored set of musical instruments and digital infrastructure for effective music learning. This setup is designed to deliver an engaging and interactive learning experience.



Musical Instruments Provided :

- Guitar
- Keyboard (Yamaha 61 Keys)
- Dufflee
- Jheeka – 12 Jingle (Wooden)
- Tabla
- Naal
- Manjeera

Digital Infrastructure :

- 32" LED TV: Used to display live-streamed lessons or pre-recorded content.
- Android Box: A smart classroom hub that connects to the TV and supports the Dhurina App for live streaming, recorded lessons, and tracking student engagement.





CENTRALIZED STUDIO SETUP AT STATE HEADQUARTERS

A dedicated studio will be set up at the State Education Department Headquarters. This studio will act as the command center for the live streaming and creation of music lessons.

Studio Features :

- Multi-camera setup for professional lesson recording
- Soundproofed rooms for high-quality audio
- Live broadcast capability to stream lessons in real-time

Faculty Structure :

- 4 expert teachers per musical instrument category, working in shifts
- Responsibilities include:
 - Delivering live lessons to schools via smart classrooms
 - Creating curriculum-aligned pre-recorded content for flexibility
 - Interacting with students during scheduled Q&A hours

Digital Content Delivery and Learning Model : The Dhurina App installed in each Android Box enables both live streaming and the playback of recorded lessons. The content is delivered to students through the 32" LED TV connected to the Android Box, making it accessible for everyone in the classroom.

Features of the Dhurina App :

- **Live Streaming** of classes to schools across Bihar
- **Access to Pre-recorded Lessons** for flexible learning
- **Real-time Notifications** for students when new content is available
- **Utilization Tracking** through DMS (Device Management System) to monitor student engagement

Benefits :

- Students receive **real-time, expert-led instruction**
- **Recorded content** allows students to **revisit lessons** for practice
- Teachers can track **attendance, usage, and student performance** through the system





IMPLEMENTATION STRATEGY

The implementation process will be efficient, transparent, and monitored at every level. The project is designed for scalability and sustainability, ensuring that all schools have equal access to the necessary resources.

Procurement & Distribution :

- Procurement Process: Managed via state-approved vendors under transparent bidding procedures.
- Distribution Channels: Materials will be distributed through District Education Offices with oversight by Block and Cluster Resource Coordinators.

Teacher Training :

Local teachers will be trained in :

- Operating the Android Box and TV setup
- Supporting students during both live and recorded lessons
- Using content management tools to track progress

MONITORING, EVALUATION & FEEDBACK

To ensure the success of the program, various tracking and reporting systems will be implemented.

Monitoring Mechanisms :

Android Box with DMS: Tracks:

- Attendance logs
- Engagement reports (how much time students spend on the app, which lessons they watch)
- Playback history for reviewing lesson effectiveness

Performance and Reporting :

- Schools will submit monthly reports documenting the number of music periods conducted.
- Periodic performance showcases (virtual or in-person) will assess the learning outcomes and provide feedback.



EXPECTED OUTCOMES AND IMPACT

Expected Outcomes :

- Holistic development: Students will gain exposure to structured music education.
- Equal learning opportunities: Students from rural and urban areas will have access to the same quality of music instruction.
- Increased cultural engagement: Music education will foster creativity, self-expression, and emotional development.
- Higher academic performance: Studies show that exposure to music enhances cognitive development and improves focus.

Impact :

- Strengthening art-integrated learning as part of the NEP 2020 goals
- Providing equitable access to quality education through a centralized, scalable digital model
- Encouraging community participation and cultural exchange through music



CONCLUSION



This initiative represents a pioneering effort to integrate music education with digital technology in Bihar's government schools. The model ensures that students, regardless of their location, receive the same high-quality music instruction. By combining traditional learning with digital tools, the program aims to develop creativity, emotional intelligence, and cultural engagement in students, while also fulfilling the NEP 2020's objectives for art integrated learning.