

Operationalizing NEP 2020 through Student–Library Collaboration: A Case Study from Indian Higher Education

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Abstract

This descriptive case study documents three student-library collaborative projects—a library website, a virtual library tour, and a digital space booking system—undertaken at an autonomous college in Mumbai in alignment with the experiential learning objectives of India's National Education Policy (NEP) 2020. The projects were designed and developed by student teams from three departments under the guidance of library staff and faculty mentors and were evaluated by the respective faculty mentors. The account draws on the completed project outputs and the library team's experience in mentoring the students. Kolb's experiential learning cycle provides an interpretive lens for examining how library-anchored projects can facilitate applied learning through initiatives such as On-the-Job Training (OJT), field projects, and co-curricular activities. The case also highlights the importance of institutional policy support, credit-based recognition, and librarian capacity building in integrating such projects into the higher education curriculum.

Keywords: NEP 2020; experiential learning; library innovation; applied learning; student collaboration

1. Introduction

The National Education Policy (NEP) 2020 emphasizes experiential, multidisciplinary, and skill-integrated learning in higher education across India. It encourages institutions to design learning environments that bridge academic knowledge with practical, real-world application (Ministry of Education, 2020). Academic libraries, though traditionally resource-oriented units, increasingly function

as collaborative learning spaces that support digital engagement, problem-solving, and cross-disciplinary interaction. This paper presents a case study of three student-led library projects implemented at an autonomous college in Mumbai. These projects—development of a library website, production of a virtual library tour, and creation of a space booking system—were executed under library mentorship and aligned with NEP 2020’s skill-oriented approach.

The study addresses three gaps in the literature: (a) limited documentation of collaborative experiential projects hosted by Indian academic libraries; (b) a shortage of practice-oriented accounts showing how such projects can operationalize NEP 2020; and (c) the need for sustainable academic–library partnerships that enhance student learning outcomes. Existing Indian work on libraries and NEP 2020 is largely conceptual or literature-based (Thapa, 2022; Vagdal & Acharya, 2023; Sutar, 2024), with some interview-based evidence from faculty and librarians (Jayamma et al., 2023). This case study describes how library-anchored experiential learning can be organized, what it produced, and what it implies for institutional development.

The study pursues the following objectives:

- (1) To describe the scope and nature of student participation in student -library-collaborative projects initiated under the NEP 2020 framework.
- (2) To describe the role of the librarian as mentor and facilitator of experiential and multidisciplinary learning in these projects.
- (3) To document the tasks and skills the projects required of students and interpret them through Kolb’s experiential learning cycle.
- (4) To draw implications and recommendations for embedding such collaborations in institutional practice and policy.

2. Literature Review

The concept of experiential learning has its philosophical foundation in John Dewey’s *Experience and Education*, in which he argues that education must be rooted in thoughtfully structured experience and critical reflection (Dewey, 1986). Building on this premise, David A. Kolb’s experiential learning theory—comprising four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation—offers a systematic and widely adopted framework for how learners transform experience into knowledge (Kolb, 1984). In the context of higher education, this framework has gained renewed relevance as institutions increasingly integrate hands-on, project-based learning opportunities into their academic ecosystems.

Within Indian higher education, academic libraries are being reconceptualized in light of the National Education Policy (NEP) 2020—shifting from their traditional role as repositories of information to functioning as active facilitators of learning, innovation, and lifelong engagement. Vagdal and Acharya (2023) argue that academic libraries have a significant role in supporting NEP 2020 by providing access to diverse resources, facilitating research and innovation, fostering collaboration and networking, and enhancing digital literacy skills. Thapa (2022) further observes that although NEP 2020 does not explicitly define the role of libraries, they are well positioned to support e-learning, experiential learning, community engagement, and high-quality research environments aligned with the policy’s vision. Jayamma et al.

(2023) discuss how libraries can support digital literacy and research under the policy, and Sutar (2024) analyzes the policy document to identify areas in which libraries can contribute to implementation in higher education. Sharma and Panda (2024) examine how libraries can facilitate student clubs and quality circles in line with NEP 2020. They argue that libraries connect formal and informal learning and, by providing resources and a supportive learning atmosphere, foster students' interdisciplinary competencies and problem-solving skills, in keeping with the policy's emphasis on outcome-driven education, lifelong learning, and workforce preparedness. That work centers on clubs and quality circles; the present study extends the discussion to project-based learning, in which students build services for the library.

Digital libraries form a crucial component of this transformation, as noted by Kapade and Dhepe (2023), who highlight how digital repositories and online access enable 24×7 availability of academic content—advancing NEP's goals of technology-enabled and inclusive education. In addition, the preservation and dissemination of Indian Knowledge Systems (IKS) has emerged as an important priority under NEP 2020.

NEP 2020 articulates a vision of education as a holistic, flexible, and multidisciplinary process that nurtures creativity, critical thinking, and learner autonomy. The policy emphasizes that educational institutions should provide safe, inclusive, and stimulating learning environments, supported by strong physical infrastructure, robust digital ecosystems, and equitable access to quality learning resources (Ministry of Education, 2020). These elements collectively form the foundation for experiential and inquiry-based learning.

Academic libraries have meanwhile been reshaping their professional roles, from traditional support services toward embedded, liaison, and specialist functions (Jaguszewski & Williams, 2013; Cox & Corral, 2013), and Indian scholars link this shift to collaboration and networking in the NEP 2020 context (Vagdal & Acharya, 2023). This paper takes the position that, under a learner-centric and technology-enabled policy, libraries can also act as co-creators in the experiential learning process, in addition to their custodial role.

However, while the existing literature provides theoretical and conceptual grounding for experiential learning and acknowledges the evolving role of libraries in higher education, the sources reviewed here contain limited documentation of collaborative, library-hosted experiential projects linked to NEP 2020 implementation in India. Much of the research reviewed addresses areas such as library modernization, digital infrastructure, or user engagement in isolation, without exploring how libraries act as collaborators in promoting the experiential, interdisciplinary, and participatory learning envisioned by NEP 2020.

This gap highlights the need for context-specific accounts from Indian higher education institutions where libraries have operationalized NEP principles through live, student-driven, technology-enabled projects. The present study addresses this gap by describing how this student-library collaborative experiential learning initiatives were organized and by documenting the outputs they produced: a library website, a virtual tour, and an in-house digital application.

3. Methodology

A descriptive, practice-oriented case study approach was used to document how three student–library collaborative projects were conceptualized and implemented. The case is bounded by these three projects at one autonomous college.

Twenty-four undergraduate students from the Computer Science, Information Technology, and Multimedia departments worked in project teams under the mentorship of library staff and four faculty members in the academic year 2025-2026. The account is based on the three completed outputs (the library website, the narrated tour video, and the space booking system) and on the library team’s first-hand knowledge, as project mentors, of how each project was planned and carried out. No surveys, or direct student learning assessments were conducted for this study, and no individual student is identified. Each project followed planning, prototyping, testing, and review cycles. Kolb’s four stages are used as an interpretive lens (Table 2, Section 5), not as a measured outcome. The paper therefore does not assess learning outcomes.

4. Case Illustrations and Findings

4.1 Library Website Development

Students from the Computer Science department redesigned the library website using WordPress. The library team provided content structure, resource lists, and usability requirements. Students implemented a responsive design, simplified navigation, and metadata-aligned resource sections. The website was developed to integrate with the college’s main site and allow librarians to update content independently. The work required skills in interface design, content structuring, and user-experience evaluation. <https://vesasc-library.great-site.net/?i=1> launched on 15th October 2025

4.2 Virtual Library Tour with Narration

Multimedia students produced a narrated virtual library tour to support first-year student orientation. The project involved scriptwriting, storyboarding, filming, video editing, and voice-over production. The library team ensured accuracy of information and provided access for filming. The final video was uploaded to the library’s public media channel and is intended for use in orientation sessions. Link: <https://youtu.be/njmWZYU2CZo?si=rP15l1oohrgub-p3>

4.3 Library Space Booking System

Information Technology students created a digital space booking system using React for the interface and Firebase for backend management. Students analyzed booking workflows, conducted requirement-gathering interviews for the development of the system, and tested the prototype on the institution’s intranet. The system automated reservations and generated usage logs, and was designed to reduce manual work for staff.

4.4 Summary of Outputs

Table 1. Outputs of the three student–library projects.

Project	Department	Tools or platform	Output described in Section 4
Library website (4.1)	Computer Science	WordPress	Redesigned library website, integrated with the college’s main site and editable by librarians
Virtual library tour (4.2)	Multimedia	Video production (scripting, storyboarding, filming, editing, voice-over)	Narrated tour video for first-year orientation, on the library’s public media channel
Space booking system (4.3)	Information Technology	React (interface); Firebase (backend)	Reservation system that generates usage logs, tested on the institution’s intranet

5. Discussion

The three projects illustrate how library environments can support experiential learning by providing authentic tasks linked to institutional needs. As documented in Section 4, library staff supplied content structure and usability requirements for the website, verified the accuracy of information and arranged access for filming the tour, and served as mentors alongside faculty. These mentoring, requirement-setting, and quality-assurance roles are consistent with the shift toward embedded and specialist library roles described by Jaguszewski and Williams (2013) and Cox and Corral (2013). The projects also required a range of skills, including interface design, content structuring, scriptwriting, video production, requirement analysis, and front-end and back-end development, across three departments (Table 1).

Read through Kolb’s cycle (Table 2), the documented activities correspond to concrete experience (building live outputs), abstract conceptualization (planning, design, and requirement analysis), and active experimentation (prototyping and testing). Reflective observation is the stage least documented here, because no student reflections were documented. The case therefore illustrates the fit between library projects and experiential learning theory; it does not show that students moved through the full cycle or acquired particular skills. The study is limited to three projects in one institution, does not assess learning outcomes, and relies on the library team’s account of the process, so its findings are not generalizable.

Table 2. Interpretive mapping of the documented project activities to Kolb's experiential learning cycle.

Kolb stage	Activities described in Section 4
Concrete experience	Building live outputs for library users: WordPress site (4.1), narrated tour (4.2), React/Firebase booking system (4.3)
Reflective observation	Testing and review cycles (Section 3); user-experience evaluation of the website (4.1); prototype testing (4.3). Student reflections were undocumented.
Abstract conceptualization	Content structuring (4.1); scriptwriting and storyboarding (4.2); requirement-gathering interviews and workflow analysis (4.3)
Active experimentation	Implementation and prototyping in each project; prototype testing on the institution's intranet (4.3)

6. Implications for Policy and Practice

The case suggests three implications: (1) libraries may be able to host sustainable experiential learning activities when supported by credit-based recognition, and NEP 2020 provides for an Academic Bank of Credit that stores credits earned at recognized institutions (Ministry of Education, 2020) (2) librarians require dedicated capacity-building in project mentoring and digital content review; and (3) institutions should formalize collaboration mechanisms that connect libraries with academic departments.

7. Recommendations

1. Institutionalize student–library collaborative projects under the institution's NEP 2020 experiential learning provisions.
2. Use lightweight documentation and handover protocols to ensure sustainability of student-built systems.
3. Start with small, well-scoped projects and scale based on institutional need.
4. Provide professional development for librarians in mentoring, usability design, and digital workflows.
5. Collect brief student feedback and basic usage data from the start of each project, so that learning outcomes can be assessed in later projects.

8. Conclusion

This case study illustrates how academic libraries can serve as applied learning spaces aligned with NEP 2020. A library website, a narrated virtual tour, and a space booking system were built by students from three departments with library mentorship. Because learning outcomes were not assessed, the study does not establish that students gained particular skills. It offers a documented model of library-anchored projects that later studies can evaluate using student feedback and usage data.

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