

Project-based Learning in Indian Government Schools: Vision vs Ground Reality

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ABSTRACT

Project-Based Learning (PBL) has emerged as a significant pedagogical approach in contemporary school education, particularly in the context of reforms that seek to move beyond rote memorization toward experiential, inquiry-driven, and competency-based learning. In India, the National Education Policy (NEP) 2020 and subsequent curriculum reform efforts have strongly advocated activity-based and experiential pedagogies, thereby creating a favorable policy environment for the adoption of PBL in schools. However, the translation of this vision into everyday classroom practice remains uneven, especially in government schools, where structural, pedagogical, and administrative challenges continue to shape teaching–learning processes. This paper examines the gap between the policy vision of Project-Based Learning and the ground reality of its implementation in Indian government schools. It aims to analyze how PBL is conceptually positioned within recent education reforms, how it is interpreted in school-level practice, and what barriers limit its authentic execution. The paper adopts a qualitative and analytical approach based on secondary sources, including policy documents, curriculum frameworks, implementation reports, and relevant academic literature. The study argues that while PBL is widely recognized for promoting student engagement, collaboration, critical thinking, and contextual understanding, its implementation in government schools is often reduced to superficial project work rather than genuine inquiry-based learning. Factors such as inadequate teacher training, large class sizes, pressure to complete the syllabus, exam-oriented assessment patterns, limited resources, and uneven institutional support contribute to this gap. The paper concludes that the challenge lies not in the pedagogical value of PBL itself, but in the absence of enabling conditions required for its meaningful implementation. It recommends context-sensitive teacher preparation, low-cost localized project design, better assessment integration, and stronger systemic support to bridge the divide between educational vision and classroom reality.

Keywords: *Project-Based Learning; Indian Government Schools; NEP 2020; Experiential Learning; Competency-Based Education; School Education Reform; Implementation Gap.*

Introduction

In recent years, school education in India has been undergoing a clear pedagogical shift, from an emphasis on memorization and content reproduction toward experiential, competency-based, and learner-centred education. The National Education Policy (NEP) 2020 explicitly calls for pedagogy that is more *experiential, holistic, integrated, inquiry-driven, discovery-oriented, and discussion-based*, while also encouraging hands-on and activity-based learning across stages of schooling. (education.gov.in) The National Curriculum Framework for School Education (NCF-SE) 2023 carries this vision forward as a direct implementation framework for NEP 2020 and reinforces the movement toward curricular and pedagogic practices that develop understanding, application, and competencies rather than rote retention alone.

Within this reform landscape, Project-Based Learning (PBL) has gained renewed relevance. PBL is not merely the completion of a project file or a decorative assignment; rather, it is a structured pedagogical approach in which students learn by investigating questions, solving contextual problems, collaborating with peers, and producing meaningful outputs linked to real-life understanding. In principle, PBL aligns naturally with the aspirations of current Indian school reforms because it supports critical thinking, problem-solving, communication, creativity, and application-based learning, skills that are central to twenty-first-century education. The policy discourse, therefore, creates a strong normative foundation for adopting project-oriented and experiential methods in classrooms.

However, the question is not whether PBL is desirable in theory, but whether it is feasible and meaningful in everyday government-school conditions. This question becomes especially important because India's school system is not small or uniform. According to the UDISE+ dashboard, the country's school education system covers about 14.71 lakh schools, 24.69 crore students, and 1.01 crore teachers in 2024–25, making implementation challenges deeply tied to scale, diversity, and uneven institutional capacity. (udiseplus.gov.in) In such a vast public system, even a pedagogically sound reform may produce uneven results when translated into classrooms shaped by crowded sections, variable infrastructure, limited teaching-learning materials, administrative workload, multilingual realities, and examination pressure.

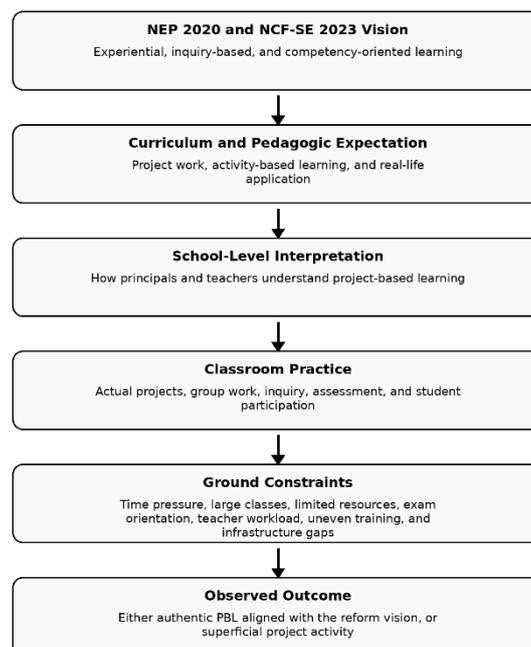


Figure 1: From Policy Vision to Classroom Reality: The PBL Implementation Chain in Indian Government Schools

Source: Curated by the author

This gap between policy aspiration and classroom execution lies at the heart of the present study. In many government schools, project work may formally exist, but authentic PBL often gets diluted into homework tasks, chart-making exercises, copied assignments, or teacher-directed activities with limited inquiry and weak student ownership. Such practices may satisfy procedural expectations without fully achieving the educational goals associated with true project-based pedagogy. Thus, the central issue is not simply the presence or absence of “projects,” but the difference between surface-level project activity and deep pedagogic transformation.

The topic is particularly significant in the Indian context because government schools serve a large and socially diverse student population, including many first-generation learners and children from resource-constrained backgrounds. For these learners, well-designed PBL can potentially make learning

more relevant, contextual, and engaging. Yet the same setting also exposes the structural barriers that may prevent its proper implementation. This makes Indian government schools an important site for studying how reform ideas travel from official documents into actual classroom practice.

Against this background, the present paper examines “Project-Based Learning in Indian Government Schools: Vision vs Ground Reality” as a policy-to-practice issue. It seeks to analyze how PBL is envisioned in contemporary Indian education reform, how it is likely to be interpreted within government-school settings, and what institutional, pedagogical, and systemic constraints shape its implementation. By doing so, the paper aims to contribute to a more grounded understanding of educational reforms, one that recognizes that effective pedagogy depends not only on progressive policy language, but also on the enabling conditions available to teachers and schools.

Review of Literature

The literature on Project-Based Learning (PBL) consistently identifies it as an important learner-centred pedagogical approach that promotes deeper understanding, critical thinking, collaboration, and real-world application of knowledge. **Thomas (2000)**, in one of the foundational reviews of PBL research, explains that authentic project-based learning is not simply the assignment of projects, but a systematic instructional method in which students engage in extended inquiry around complex questions and produce meaningful outcomes. Similarly, **Bell (2010)** argues that PBL is particularly relevant for twenty-first-century education because it helps develop communication, problem-solving, self-direction, and teamwork skills that traditional teacher-centred methods often fail to cultivate.

Condliffe (2016), in a comprehensive literature review, further observes that PBL can improve student engagement and make learning more meaningful when it is well-designed, curriculum-linked, and supported by effective teacher facilitation. However, the same body of literature also shows that the success of PBL depends heavily on implementation conditions. Research across school settings suggests that without adequate teacher preparation, time, resources, and assessment support, project work may become superficial and fail to produce the intended learning outcomes.

In the Indian context, the policy foundation for project-based and experiential learning has become stronger in recent years. The **National Education Policy (NEP) 2020** emphasizes experiential, inquiry-based, discovery-oriented, and competency-based learning, thereby positioning project work as a legitimate and desirable classroom strategy. The **National Curriculum Framework for School Education (NCF-SE) 2023** further strengthens this direction by advocating pedagogies that move beyond rote memorization toward conceptual understanding and application. These policy documents indicate a clear shift in educational vision at the national level.

At the level of school realities, however, national reports suggest a more complex picture. The **UDISE+ reports** of the Ministry of Education (2024–25) show the enormous scale and diversity of India’s school system, which affects the uniform implementation of any pedagogical reform. Likewise, the **ASER 2024 National Findings** by Pratham Education Foundation highlight continuing concerns related to foundational learning, which imply that many students may require substantial scaffolding before they can fully benefit from authentic inquiry-based tasks. Taken together, the literature suggests that while PBL is pedagogically valuable and policy-supported in India, its meaningful adoption in government schools depends on bridging the gap between reform vision and classroom capacity.

Objectives of the Study

- To examine the policy vision of Project-Based Learning (PBL) in the context of contemporary school education reforms in India.
- To analyze how Project-Based Learning is interpreted and practiced in Indian government schools.
- To identify the major structural, pedagogical, and institutional barriers affecting the effective implementation of PBL in government-school settings.
- To assess the gap between the intended educational benefits of PBL and the realities of classroom execution.
- To suggest practical measures for strengthening the implementation of authentic project-based pedagogy in Indian government schools.

Research Questions

- How is Project-Based Learning envisioned in Indian school education policy frameworks?
- To what extent is Project-Based Learning meaningfully implemented in Indian government schools?
- What is the difference between policy-level expectations of PBL and its classroom-level practice?
- What major constraints limit the successful adoption of PBL in government schools?
- What policy and institutional interventions can help bridge the gap between vision and ground reality?

Methodology

Research Design

This paper may be developed as a qualitative, analytical, and descriptive study based primarily on secondary data. This design is suitable because the topic seeks to examine the relationship between educational policy vision and actual implementation conditions rather than measure one single numerical variable. Since NEP 2020 and the NCF-SE 2023 provide the official policy basis for pedagogical reform in school education, a policy-to-practice analytical approach is appropriate.

Nature of the Study

The study is conceptual-cum-analytical in nature. It focuses on understanding:

- the theoretical meaning of Project-Based Learning,
- the policy support available for experiential and competency-based learning in India,
- and the practical limitations that influence implementation in government schools.

Sources of Data

The study will rely on secondary sources, such as:

- National Education Policy (NEP) 2020
 - National Curriculum Framework for School Education (NCF-SE) 2023
 - government reports and implementation notes related to school education
 - academic books, journal articles, and research papers on PBL and experiential learning
 - reports on teacher training, school infrastructure, and public-school functioning in India
- These sources are appropriate because the paper aims to compare the intended policy direction with likely field realities in the public-school system.

Method of Analysis

The paper uses thematic analysis. Under this method, data from policy documents and literature can be organized into key themes such as:

- policy vision for experiential learning
- meaning and characteristics of authentic PBL
- classroom practices in government schools
- institutional and pedagogical barriers
- implementation gap between policy and practice
- recommendations for improvement

This approach will help present the discussion in a structured manner and make the argument more coherent.

Scope of the Study

The scope of the paper is limited to:

- **Indian government schools**
- **school-level education**
- the issue of **Project-Based Learning as a pedagogical practice**
- and the gap between **reform vision and implementation reality**

The paper does not aim to provide a comparative analysis of private schools, nor does it attempt a state-wise statistical evaluation. Its focus remains on the broader national policy context and typical implementation challenges.

Rationale for the Chosen Method

A secondary-data-based qualitative methodology is especially suitable for a 4,000-word research paper because it allows:

- engagement with current policy frameworks,
- conceptual clarity on PBL,
- systematic discussion of implementation barriers,
- and practical policy recommendations without requiring large-scale field surveys.
- informal interviews with 5–10 government-school teachers, or
- a short perception-based questionnaire.

Analysis and Discussion

Since this study uses thematic analysis, the discussion may be organized around key themes emerging from policy documents, school-system indicators, and implementation realities. Thematic analysis is suitable here because the paper is not trying to test a numerical hypothesis; instead, it seeks to interpret the gap between the **vision of Project-Based Learning (PBL)** and the **conditions under which government schools actually function**. The broad themes that emerge are: (1) **policy endorsement of experiential learning**, (2) **classroom-level dilution of PBL**, (3) **structural and institutional barriers**, and (4) **the need for context-sensitive implementation rather than symbolic compliance**.

Theme 1: Policy Vision Strongly Supports Experiential and Project-Based Learning

At the policy level, the direction is clear. NEP 2020 explicitly states that curriculum content should be reduced to core essentials so that schools can create space for critical thinking, inquiry-based, discovery-based, discussion-based, and analysis-based learning. It further states that experiential learning should be adopted at all stages, including hands-on learning, with classroom transactions shifting toward competency-based learning. The policy also mentions student progress in project-based and inquiry-based learning as part of more holistic assessment. This provides a strong normative basis for PBL in Indian schools.

This policy thrust is reinforced by the National Curriculum Framework for School Education 2023, which positions itself as a direct curricular follow-through of NEP 2020 and emphasizes a move toward meaningful learning experiences rather than rote content transmission. In principle, therefore, Indian school reform is fully compatible with authentic project-based pedagogy.

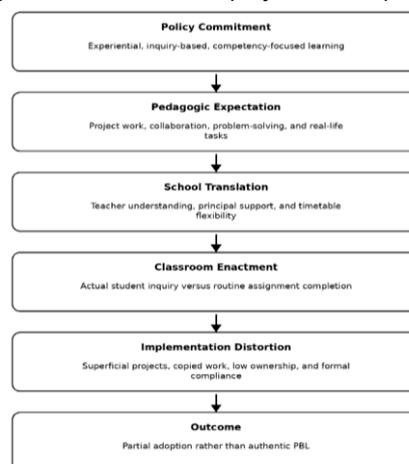


Figure 2: Thematic Structure of the Vision–Reality Gap in PBL

Source: Curated by the author

Interpretation

This figure captures the core argument of the paper: the gap does not arise because policy ignores PBL, but because the transition from policy to classroom is filtered through institutional constraints and local interpretations. The policy language itself is progressive; the difficulty lies in execution.

Theme 2: In Practice, “Project Work” Often Exists Without Authentic PBL

A major finding of the thematic analysis is that the presence of “projects” in schools should not automatically be treated as evidence of true PBL. In many government-school settings, project work is likely to appear in the form of charts, copied write-ups, model-making, or file-based assignments. These may satisfy curricular or inspection expectations, but they do not always reflect the core features of PBL namely, sustained inquiry, problem-solving, collaborative investigation, student voice, and contextual application. This creates a distinction between project as product and project as pedagogy. The former is visible and easy to document; the latter requires deeper changes in teaching practice. This distinction is fully consistent with NEP’s own call for interactive, exploratory, and competency-linked teaching rather than formal activity for its own sake.

In other words, the challenge is not the complete absence of project activity, but the dilution of intent. When project work becomes merely an add-on, students may complete tasks without deeper conceptual understanding. In such cases, PBL becomes symbolic rather than transformative. This is especially likely in systems where teachers are evaluated more on completion and documentation than on the depth of student engagement. That risk is structurally important in large public systems.

Theme 3: Scale and System Realities Shape What Is Possible

The Indian government-school system operates at an extraordinary scale. The Ministry of Education’s UDISE+ 2024–25 release states that the total number of teachers has crossed 1 crore (1,01,22,420) for the first time, up from 94,83,294 in 2022–23 and 98,07,600 in 2023–24. It also reports pupil-teacher ratios of 10, 13, 17, and 21 at the foundational, preparatory, middle, and secondary levels respectively. On paper, these are encouraging trends, because PBL generally requires closer teacher facilitation than lecture-dominated teaching. ([Press Information Bureau](#))

However, aggregate improvement does not automatically mean that every classroom is well-positioned for authentic PBL. Thematic interpretation suggests that even when national-level ratios improve, implementation may still be hindered by uneven teacher distribution, multigrade contexts, administrative workload, timetable rigidity, and pressure to cover the syllabus. PBL demands planning time, facilitation skill, assessment clarity, and classroom flexibility; these are not guaranteed merely because overall teacher numbers rise. Thus, improved system indicators may create possibility, but not necessarily readiness.

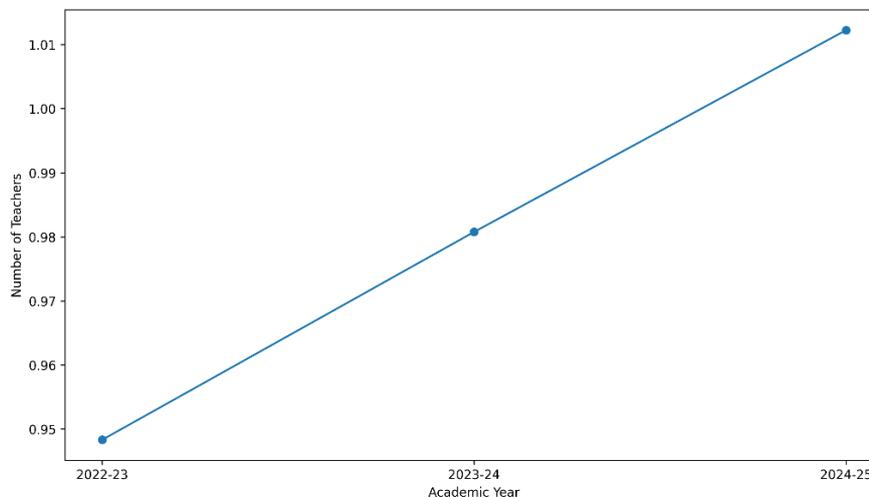


Figure 3: Total Teachers in India’s School System

Source: Curated by the author

Theme 4: Learning Needs Make PBL Important, But Also More Demanding

The current learning context in India actually strengthens the case for project-based methods. ASER 2024 reports that school enrollment among children aged 6–14 remains above 95%, and that 66.8% of children in this age group were enrolled in government schools in 2024. It also reports that reading and arithmetic levels in government schools have improved since 2022. For example, among government-school students in Std III, the proportion able to read at least a Std II level text rose from 16.3% in 2022 to 23.4% in 2024, while the proportion able to do at least a numerical subtraction problem rose from 20.2% to 27.6% over the same period.

These improvements are important, but they also underline a deeper point: if foundational learning levels remain fragile for many students, authentic PBL becomes both more necessary and more difficult. It is more necessary because applied, contextual, collaborative learning can improve engagement and meaning-making. But it is more difficult because students with weak reading, writing, or numeracy may need greater scaffolding to participate effectively in inquiry-based tasks. This means PBL in government schools cannot simply be borrowed from elite school models; it must be adapted to real learner profiles.

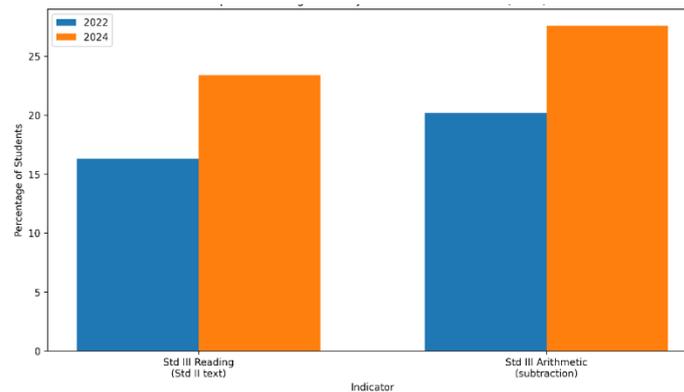


Figure 4: Learning Recovery in Government Schools (ASER 2024)

Source: Curated by the author

Theme 5: The Core Barriers Are Pedagogical and Institutional, Not Merely Ideological

The thematic analysis shows that the main obstacles to authentic PBL are not necessarily opposition to reform, but the absence of enabling conditions. These barriers can be grouped into the following categories:

Table 1: Key Barriers to Authentic PBL in Indian Government Schools

Barrier	Likely Effect on PBL
Syllabus completion pressure	Projects become rushed or tokenistic
Exam-oriented culture	Teachers prioritize recall-based preparation
Limited teacher training in PBL design	Activities remain teacher-led, not inquiry-led
Administrative workload	Reduced planning and facilitation time
Resource constraints	Difficulty in conducting materials-based or field-based projects
Uneven learner readiness	Group tasks may exclude weaker students
Weak assessment rubrics	Projects judged by presentation, not learning depth

This table is analytically derived from the mismatch between NEP's pedagogic expectations and the practical demands of classroom delivery. NEP explicitly asks for more interactive, exploratory, competency-based learning; therefore, wherever schools remain tied to content rush, limited support, and traditional assessment, PBL is likely to become superficial.

A key insight here is that government schools often function within a logic of compliance, while authentic PBL requires a logic of facilitation. Compliance asks whether a project was assigned and submitted. Facilitation asks whether students investigated, questioned, collaborated, reflected, and

learned through the task. The gap between these two institutional cultures explains much of the “vision vs ground reality” problem.

Theme 6: The Way Forward Is Adaptation, Not Rejection

The evidence does not suggest that PBL should be abandoned in government schools. On the contrary, policy direction, enrollment stability, and gradual learning recovery all indicate that the system is moving in a promising direction. But the analysis strongly suggests that PBL must be adapted to the realities of government-school classrooms. Reform will be meaningful only when PBL is designed as low-cost, curriculum-linked, teacher-supported, and assessment-aligned.

Table 2: Vision vs Ground Reality in Project-Based Learning

Policy Vision	Ground Reality
Inquiry-based learning	Often reduced to guided assignment completion
Student autonomy	Teacher-directed tasks dominate
Collaborative exploration	Unequal participation within groups
Competency-based assessment	Marks and written output still dominate
Real-life learning context	Projects may remain textbook-centred
Holistic development	Documentation often gets priority over process

This table can serve as one of the strongest summary devices in your paper because it directly reflects the title itself. It shows that the issue is not a contradiction between policy and practice, but a translation gap between them. The policy intention remains progressive; the reality reflects the uneven preparedness of the system.

Key Findings

The analysis suggests five major findings. First, Indian education policy strongly supports experiential and project-based pedagogy in principle. Second, the presence of “project work” in schools does not necessarily indicate authentic PBL. Third, system-level improvements such as higher teacher numbers and better aggregate ratios are positive, but they do not automatically translate into classroom readiness. Fourth, government-school learners may benefit significantly from contextual and applied learning, yet they often require stronger scaffolding due to uneven foundational levels. Finally, the real gap lies between reform design and implementation capacity, not between policy ideals and educational need.

Policy Suggestions / Recommendations

A practical way forward is to treat PBL as a phased and context-sensitive reform. Teachers should be supported with simple project templates linked to textbook units, rather than being expected to design complex inquiry models without preparation. Training should focus not only on “what PBL is” but on how to run it in large, mixed-ability, low-resource classrooms. Assessment rubrics should reward process, questioning, teamwork, and reflection, not just neat presentation. Schools should also prioritize small, locally rooted projects that use available materials, neighbourhood observations, and community-based themes. This would make PBL more feasible in government-school contexts and more meaningful for students. These recommendations are aligned with the competency-based and experiential direction laid out in NEP 2020.

Conclusion

Project-Based Learning (PBL) represents one of the most promising pedagogical approaches for transforming school education from a system centred on memorization to one rooted in understanding, application, collaboration, and critical thinking. In the Indian context, this shift is not merely aspirational but policy-backed. The National Education Policy 2020 and the National Curriculum Framework for School Education 2023 clearly endorse experiential, inquiry-based, and competency-oriented learning, thereby creating a strong conceptual foundation for the integration of PBL into school education. In principle, therefore, the policy environment is not a barrier; rather, it is highly supportive of educational practices that move beyond rote instruction and encourage active student participation.

However, the central argument of this paper is that the presence of a strong policy vision does not automatically guarantee meaningful classroom transformation. In Indian government schools, the

implementation of PBL remains shaped by the realities of scale, uneven resources, variable teacher preparedness, time pressures, examination culture, and institutional routines that often prioritize completion over deep engagement. As a result, what appears as “project work” in official or classroom documentation may not always reflect authentic project-based learning in its true pedagogic sense. Instead of sustained inquiry, student-led exploration, and contextual problem-solving, project activities may sometimes be reduced to charts, copied write-ups, decorative models, or formal assignments designed mainly to satisfy procedural expectations. This distinction between project as an academic product and project as a pedagogical process is crucial to understanding the gap between educational intent and actual practice. The findings of the paper indicate that this gap is not best understood as a failure of the idea of PBL itself. Rather, it is an implementation gap, a difference between what policy expects and what school ecosystems are currently able to support. Government schools operate under conditions that can make authentic PBL difficult: teachers may face syllabus pressure, administrative workload, limited materials, large or mixed-ability classes, and inadequate training in designing and assessing inquiry-based tasks. At the same time, many learners in public-school settings may have uneven foundational literacy and numeracy levels, which means that project-based methods require careful scaffolding rather than direct transplantation from idealized or elite-school models. Thus, the problem is not whether PBL is educationally sound; the problem is whether the system has yet created the enabling conditions necessary for its success.

At the same time, the conclusion should not be pessimistic. The evolving policy direction of Indian school education, improvements in national school-system indicators, and growing recognition of the need for learner-centred pedagogy together suggest that the system is moving in a constructive direction. The challenge is not to reject PBL, but to contextualize it. For Indian government schools, meaningful implementation will depend on adopting simpler, low-cost, curriculum-linked, and locally relevant project models; strengthening teacher support; aligning assessment with process as well as product; and ensuring that school leadership treats PBL as a genuine learning strategy rather than a symbolic compliance exercise. Ultimately, the debate is not whether Project-Based Learning should be part of Indian government schooling, it clearly should be. The more important question is how to make it real, workable, and equitable within the everyday realities of public education. If the vision of PBL is to move from policy language to classroom impact, reform must go beyond declarations and address the practical conditions under which teachers teach and students learn. Only then can Project-Based Learning become not just a reform ideal, but a meaningful instrument of educational transformation in Indian government schools

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