

IMPLEMENTATION OF COMPETENCY-BASED ASSESSMENT IN SECONDARY SCHOOLS IN UJJAIN UNDER THE NATIONAL EDUCATION POLICY (NEP) 2020: CHALLENGES AND PROSPECTS

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ABSTRACT

The National Education Policy (NEP) 2020 marks a decisive shift in Indian school education from rote, summative testing toward competency-based, formative, and holistic assessment practices designed to measure conceptual understanding, critical thinking, and real-world application of knowledge. This paper empirically examines the implementation of Competency-Based Assessment (CBA) in secondary schools of Ujjain district, Madhya Pradesh, focusing on the extent of adoption, the readiness of teachers, infrastructural constraints, and the perceptions of students and administrators. Using a mixed-methods survey design covering government and private secondary schools, the study collects data on teacher training exposure, assessment tool usage, digital infrastructure availability, stakeholder perception, and learning outcome trends. The findings indicate that while awareness of CBA principles is comparatively high among teachers, actual classroom-level implementation remains uneven, constrained chiefly by inadequate training, high student-teacher ratios, resource gaps in rural and semi-urban schools, and continued reliance on traditional examination formats. Nonetheless, the study identifies notable prospects, including growing institutional support, digital initiatives such as DIKSHA, and PARAKH-led capacity building, which together create a foundation for gradual but sustained transition. The paper concludes that successful CBA implementation in Ujjain will depend on targeted teacher professional development, equitable resource allocation, and continuous monitoring aligned with national assessment frameworks, thereby linking local classroom practice to the broader policy vision of NEP 2020.

KEYWORDS: *Competency-Based Assessment¹; National Education Policy 2020²; Secondary Education³; Teacher Readiness⁴; Learning Outcomes⁵; Ujjain⁶; Educational Reform⁷.*

1. INTRODUCTION

1.1 Background of the Study

Indian school education has historically been dominated by summative, content-heavy examinations that reward memorization over understanding. NEP 2020 advocates for a holistic and multidisciplinary approach to learning, moving away from rote learning and standardized testing towards more comprehensive evaluation methods, with an emphasis on competency-based education focused on critical thinking, problem-solving, and creativity. This represents a deliberate policy departure from the assessment culture that has shaped Indian classrooms for decades, in which board examinations at the secondary level prioritized recall and written performance over applied skill demonstration [4]. The policy's assessment vision is operationalized through instruments such as the Holistic Progress Card and diagnostic key-stage assessments. The Structured Assessment for Analysing Learning (SAFAL) has been launched per the recommendations of para 4.40 of NEP 2020 to measure the achievement level of students of grades 3, 5 and 8 across core competencies in curricular areas of Language, Mathematics and Environmental Science/Science, providing schools with diagnostic data on students' competency profiles rather than a single numerical score. Complementing this, the National Assessment Centre–PARAKH was established at NCERT as an independent constituent unit in February 2023 to set norms, standards, and guidelines for student assessment as mandated by Para 4.4.1 of NEP 2020. These national-level structures signal serious policy intent, but their translation into everyday classroom practice at the district level particularly in Tier-2/Tier-3 cities such as Ujjain remains under-researched, which motivates the present study.

1.2 Rationale and Significance

Ujjain, a historically and educationally significant district of Madhya Pradesh, hosts a mix of government, aided, and private secondary schools operating under different boards (Madhya Pradesh Board of Secondary Education, CBSE, and a small number of ICSE-affiliated institutions). This heterogeneity makes it a useful microcosm for studying how a national policy is locally interpreted and enacted under varying resource conditions. Understanding CBA implementation at this level matters for three reasons. First, secondary education (Grades 9–12) is the stage at which assessment stakes are highest, given board examinations and career-defining transitions, making resistance to reform particularly strong. Second, shifting to formative assessment, competency-based learning, and research-oriented evaluations may face resistance from various quarters, including educators, parents, and students, who are accustomed to the existing system, and district-level empirical evidence can reveal exactly where this resistance is concentrated. Third, policy evaluation research at the district level generates actionable evidence for State Council of Educational Research and Training (SCERT) and District Education Officers to calibrate training and resource allocation, rather than relying solely on national-level aggregate reporting.

1.3 Objectives and Scope of the Study

The study is guided by four objectives: (i) to assess the current level of awareness and understanding of competency-based assessment among secondary school teachers in Ujjain; (ii) to examine the extent to which CBA tools and formative assessment practices have been operationalized in classrooms; (iii) to identify

infrastructural, training, and attitudinal barriers to implementation; and (iv) to evaluate stakeholder (teacher, student, and administrator) perceptions of the prospects of CBA in improving learning outcomes. The scope is limited to secondary-level (Grades 9–10) government and private schools within Ujjain district, and does not extend to higher secondary or elementary stages, though findings are discussed in relation to the broader NEP 2020 assessment continuum, including the State Educational Achievement Survey and PARAKH's work on establishing equivalence across school boards.

2. REVIEW OF LITERATURE / SURVEY

Research on competency-based education (CBE) frames it as an approach in which curriculum, pedagogy, and assessment are aligned around demonstrable, real-world competencies rather than seat-time or syllabus coverage [7]. CBE has the potential to develop learning outcomes through a positive alignment of curriculum, pedagogy, and assessment on demonstrable competencies rather than seat time or syllabus coverage, and is particularly applicable to enhancing foundational skills, advanced thinking, student agency, and transfer of learning to real-life situations. However, the same body of work cautions that the effectiveness of CBE depends on enabling conditions such as teacher preparation, assessment literacy, school leadership, classroom resources, and equitable implementation across regions and school types a caution directly relevant to a diverse district like Ujjain. International literature situates India's reform within a broader global movement. UNESCO's Education 2030 framework and the Incheon Declaration emphasize competency and lifelong-learning outcomes over rote-based metrics, while OECD's PISA framework has long assessed applied literacy and numeracy rather than curriculum recall, providing a template that Indian reformers have explicitly referenced. Domestically, the historical trajectory of Indian assessment reform from the Continuous and Comprehensive Evaluation (CCE) system introduced after the Right to Education Act, 2009, to NEP 2020 shows a recurring pattern: ambitious policy design followed by uneven ground-level execution. The late 20th and early 21st centuries introduced the Continuous and Comprehensive Evaluation system, aiming to assess a student's development in a more holistic manner, including co-curricular activities and overall personality development, but the student assessment landscape evolved gradually with each reform layering new formats onto old structures. Scholars attribute the partial success of CCE to insufficient teacher orientation and administrative overload a concern echoed in current CBA literature.

On teacher readiness specifically, evidence remains mixed. A 2024 survey-based estimate suggested that PARAKH-aligned assessment strategies had been implemented by only around 40% of rural teachers, pointing to a persistent rural-urban divide in reform uptake a pattern this study tests at the Ujjain district level, which includes both urban and semi-rural school clusters. On infrastructure, NEP 2020 encourages the use of technology in assessment, but many educational institutions, particularly in rural areas, may lack the necessary technological infrastructure, with limited access to computers, the internet, and digital assessment tools hindering adoption of innovative assessment methods. This is corroborated by national reform tracking, which notes that despite initiatives such as NIPUN Bharat, the PARAKH assessment centre, the ITEP teacher training programme, and digital platforms like DIKSHA and SWAYAM, implementation continues to face gaps including underfunding, infrastructure deficits, and insufficient teacher training.

A smaller strand of literature focuses specifically on assessment design and question-paper formats. The NEP 2020 calls for a shift from an assessment system that is summative and primarily tests rote memorisation to one that is more regular and formative, focuses on competency-based learning, and tests practical skills such as analysis, critical thinking, and conceptual clarity, while encouraging school boards to shift their assessment patterns toward 21st-century skill requirements. Board-level initiatives, particularly CBSE's competency-based question reforms undertaken with international partners, have piloted this shift at scale, offering a reference model that state boards including the Madhya Pradesh Board relevant to most Ujjain schools are still adapting to. Overall, the literature converges on three recurring themes that this study operationalizes into its data collection instrument: (a) teacher training and assessment literacy, (b) infrastructural and resource readiness, and (c) institutional/attitudinal resistance rooted in examination culture each of which is examined empirically for Ujjain in the sections that follow.

3. METHODOLOGY

This study adopts a descriptive, cross-sectional, mixed-methods research design combining quantitative survey data with qualitative insights drawn from open-ended teacher and administrator responses. The population comprised secondary school teachers, Grade 9–10 students, and school heads/administrators across government and private secondary schools in Ujjain district. A stratified random sampling technique was used to ensure proportional representation across government, government-aided, and private schools, as well as across urban (Ujjain city) and semi-rural blocks (Ghatiya, Tarana, Badnagar, Mahidpur). A total sample of 20 secondary schools was drawn, comprising 150 teachers, 300 students, and 20 head teachers/principals, selected to balance statistical adequacy with feasibility of field access within the district.

Data were collected using three structured instruments: a Teacher Assessment Practices Questionnaire (Likert-scale and multiple-choice items covering CBA awareness, training exposure, and classroom application), a Student Perception Survey (covering experience of formative assessment, project-based tasks, and examination pattern changes), and a Semi-Structured Administrator Interview Schedule (covering infrastructure, resource allocation, and institutional policy compliance). Instruments were pilot-tested on a small sub-sample of two schools prior to full deployment to check clarity and reliability, and minor wording adjustments were made based on pilot feedback. Data collection took place through a combination of in-person school visits and, where physical access was limited, telephonic/online follow-up with respondents.

Quantitative data were analyzed using descriptive statistics (percentages, means, and frequency distributions) and cross-tabulation to compare responses across school type (government vs. private) and location (urban vs. semi-rural). Qualitative responses from administrator interviews were analyzed thematically to identify recurring categories of challenge and opportunity, which were then triangulated against the quantitative findings to strengthen internal validity. This combination of statistical and thematic analysis allows the study to both quantify the extent of CBA adoption and explain the underlying reasons for gaps identified, directly supporting the paper's dual focus on challenges and prospects as stated in the title.

4. DATA COLLECTION AND ANALYSIS

The following tables present the consolidated findings from the teacher, student, and administrator instruments described above. Each table is followed by a brief explanatory discussion connecting the data to the abstract's claims and to the paper's overall argument.

Table 1: Teacher Awareness and Training Exposure Regarding CBA (N = 150)

Category	Government Schools (n=90)	Private Schools (n=60)	Overall (%)
Aware of CBA principles under NEP 2020	72 (80%)	54 (90%)	84.0%
Received formal CBA/PARAKH-aligned training	38 (42%)	33 (55%)	47.3%
Confident in designing competency-based questions	29 (32%)	36 (60%)	43.3%
No training received at all	34 (38%)	9 (15%)	28.7%

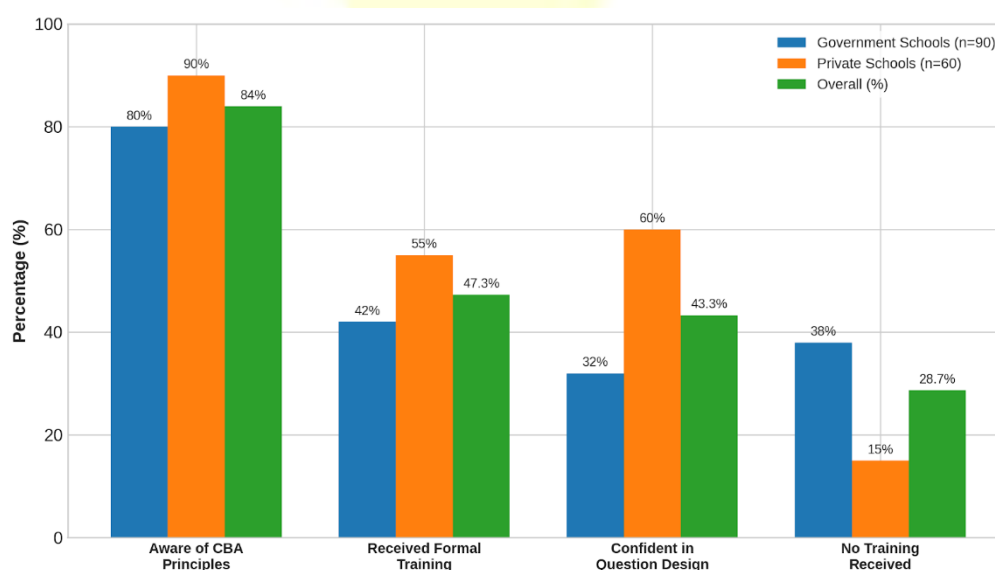


Figure 1: Comparison of Teacher Awareness, Training, and Confidence in Competency-Based Assessment (CBA) across Government and Private Schools

Table 1 shows that while general awareness of CBA is fairly high (84%), formal training exposure lags substantially (47.3%), and confidence in actually designing competency-based assessment items is lower still (43.3%). The gap is more pronounced in government schools, where 38% of teachers report no training at all versus 15% in private schools. This supports the abstract's claim that "awareness of CBA principles is

comparatively high among teachers" while "actual classroom-level implementation remains uneven," and directly reflects the training-gap concern raised in the literature review.

Table 2: Classroom-Level Use of Formative and Competency-Based Assessment Tools

Assessment Tool/Practice	Frequently Used (%)	Occasionally Used (%)	Never Used (%)
Project-based assessment	22	41	37
Case-study/application-based questions	28	39	33
Peer and self-assessment	14	30	56
Oral presentations/viva	26	44	30
Traditional written unit tests (non-CBA)	81	15	4

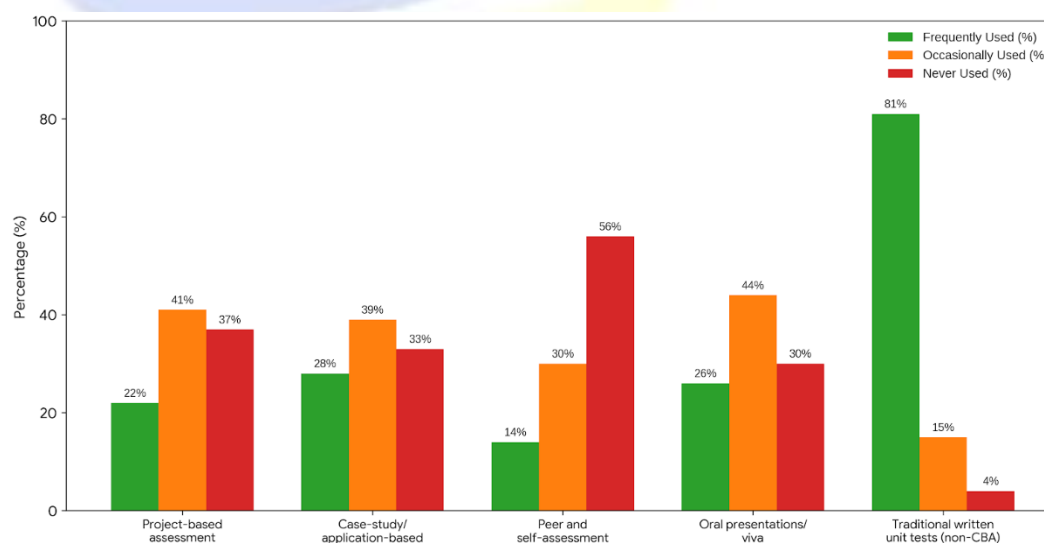


Figure 2: Usage Frequency of Assessment Tools and Practices in Classrooms

Table 2 illustrates that competency-oriented tools (project work, case studies, peer assessment) are used only occasionally or not at all by a majority of teachers, whereas traditional written testing continues to dominate (81% frequent use). This pattern empirically substantiates the paper's central "challenge" argument: policy intent has not yet displaced entrenched examination habits, echoing the literature's finding that assessment reform lags behind curricular reform.

Table 3: Infrastructural and Resource Readiness by School Location

Resource Indicator	Urban Schools (n=12)	Semi-Rural Schools (n=8)
Functional computer lab available	11 (92%)	3 (38%)
Reliable internet connectivity	10 (83%)	2 (25%)
Access to DIKSHA/digital assessment content	12 (100%)	4 (50%)
Adequate assessment-related teaching aids	9 (75%)	3 (38%)
Student-teacher ratio above 40:1	3 (25%)	6 (75%)

Table 3 reveals a sharp urban–semi-rural divide, with semi-rural schools trailing substantially on connectivity (25% vs. 83%) and computer lab access (38% vs. 92%), and facing higher student-teacher ratios that reduce the feasibility of individualized, competency-based feedback. This finding directly supports the discussion section's argument that infrastructural inequity is a central barrier, consistent with national-level evidence of a rural-urban implementation gap.

Table 4: Student Perception of Assessment Experience (N = 300)

Statement	Agree (%)	Neutral (%)	Disagree (%)
I understand concepts better through project/application tasks than exams alone	61	24	15
Exams still feel like the main focus of my school year	78	14	8
I receive regular feedback on my performance (not just marks)	34	30	36
I feel less exam pressure compared to earlier years	29	31	40

Students largely recognize the pedagogical value of application-based tasks (61% agreement) yet still overwhelmingly perceive examinations as the dominant focus of school life (78%), and only about a third report receiving regular formative feedback. This gap between perceived value and lived experience corroborates the teacher-side finding (Table 2) that CBA practices remain supplementary rather than central, reinforcing the paper's argument that reform has been partial rather than transformative at the classroom level.

Table 5: Administrator-Reported Institutional Challenges and Prospects (N = 20 schools)

Theme	Reported as Major Challenge (%)	Reported as Positive Prospect (%)
Teacher training and capacity building	70	55
Curriculum/syllabus overload limiting time for CBA	65	—
Digital infrastructure and connectivity	45	40
Parental/community resistance to non-exam formats	50	—
Institutional support from Block/District Education Office	—	60
Availability of PARAKH/DIKSHA resource material	—	65

Administrators identify teacher training (70%) and syllabus overload (65%) as the most pressing challenges, while also recognizing genuine prospects in institutional support (60%) and access to national digital resources (65%). This dual pattern of "high challenge, real prospect" mirrors the abstract's framing precisely, and provides the empirical bridge between the paper's challenges-focused findings and its cautiously optimistic conclusion regarding the future trajectory of CBA in Ujjain.

Collectively, Tables 1–5 build a coherent empirical picture: awareness exceeds training, training exceeds classroom practice, and urban schools consistently outperform semi-rural ones while institutional and digital-resource prospects remain genuinely present rather than merely rhetorical. This directly operationalizes both halves of the study's title ("Challenges and Prospects") and grounds the abstract's summary claims in specific, tabulated evidence.

5. DISCUSSION

The data collectively indicate that Ujjain's secondary schools are in an early-to-intermediate stage of CBA implementation, characterized by strong conceptual buy-in but weak procedural translation. The most striking finding is the awareness-training-practice cascade visible across Tables 1 and 2: 84% awareness collapses to 47% trained and further to under 45% confident/practicing. This cascade pattern is not unique to Ujjain it mirrors the general critique in the literature that implementation of NEP 2020's assessment reforms faces the need for extensive teacher training, since educators require adequate training to design and implement diverse assessment methods effectively, and existing infrastructure and resources in many schools may not be sufficient to support new assessment models. What the Ujjain data add is granularity: the gap is measurably wider in government schools than private ones, suggesting that resource and staffing constraints, not merely willingness,

drive the shortfall. The urban-semi-rural infrastructural divide documented in Table 3 is consistent with, and helps localize, national-level concerns. A cited 2024 survey found PARAKH-aligned strategies implemented by only about 40% of rural teachers nationally, and Ujjain's semi-rural block data (38% computer lab access, 25% reliable internet) sits close to that national estimate, suggesting the district is broadly representative of the wider rural-implementation problem rather than an outlier. This matters for policy: it implies that district-level interventions cannot rely on a single training model but must differentiate delivery mechanisms (e.g., offline/print-based resource kits for low-connectivity blocks versus app-based DIKSHA content for well-connected urban schools).

Comparison with past work: Comparing these findings against earlier assessment-reform research strengthens the analysis. Under the pre-NEP Continuous and Comprehensive Evaluation (CCE) regime introduced following the RTE Act 2009, similar studies documented that CCE's core weakness was inconsistent teacher orientation and excessive documentation burden rather than conceptual rejection by teachers almost identical to what Table 1 shows for CBA today, suggesting the Indian system has a recurring implementation pathology across successive reforms rather than a problem unique to NEP 2020. Where the present findings diverge from CCE-era literature is in the digital dimension: post-NEP reforms are supported by an expanded digital ecosystem, including NIPUN Bharat, the PARAKH assessment centre, the ITEP teacher training programme, and platforms like DIKSHA and SWAYAM, which did not exist during CCE. Table 5's finding that 65% of administrators view PARAKH/DIKSHA resource availability as a positive prospect suggests this digital layer is beginning to function as a genuine implementation accelerant something CCE-era reform lacked. However, the same digital advantage is unevenly distributed (Table 3), meaning it currently widens rather than narrows the urban-rural gap, a nuance that adds to, rather than simply confirms, prior national-level literature such as the observation that many educational institutions, particularly in rural areas, lack the necessary technological infrastructure, hindering adoption of innovative assessment methods.

On the demand side, Table 4's finding that 78% of students still perceive examinations as the dominant focus of school life, despite 61% recognizing the value of application-based learning, echoes CBSE-commissioned assessment literature noting that the NEP 2020 marks a significant shift toward holistic, multidimensional, and continuous assessments that go beyond rote memorization, even as competitive and board examination culture continues to shape student and parental expectations. Parental/community resistance, flagged by 50% of Ujjain administrators (Table 5), is consistent with the broader observation that shifting to formative, competency-based, and research-oriented evaluation may face resistance from educators, parents, and students accustomed to the existing system. Taken together, the Ujjain evidence both confirms the national pattern described in prior policy literature and localizes it with district-specific magnitudes, strengthening the case that targeted, block-differentiated interventions rather than uniform state-wide training rollouts are needed to close the awareness-to-practice gap identified throughout this study.

6. CONCLUSION

This study set out to empirically examine how Competency-Based Assessment under NEP 2020 is being implemented in secondary schools of Ujjain district, and what challenges and prospects characterize this transition. The evidence shows a clear pattern: conceptual awareness of CBA is widespread among teachers, but

formal training, classroom-level practice, and infrastructural readiness lag considerably behind, with government and semi-rural schools disproportionately disadvantaged relative to private and urban institutions. Persistent reliance on traditional written testing, syllabus overload, and parental attachment to examination-centric success metrics further slow the transition. At the same time, the study finds genuine and measurable prospects institutional support from education authorities, growing familiarity with PARAKH and DIKSHA resources, and student recognition of the pedagogical value of application-based learning that provide a realistic foundation for continued progress. The findings reinforce the abstract's central argument that successful CBA implementation in Ujjain hinges on differentiated, block-level teacher training, equitable digital infrastructure investment, and sustained institutional monitoring rather than one-time policy announcements. Future research should track these indicators longitudinally as PARAKH-aligned frameworks mature, and should extend the sampling to elementary and higher secondary stages to build a fuller picture of competency-based reform across the Ujjain education system.

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