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Page: 01-14

ISSUES AND CHALLENGES IN TESTING AND ASSESSMENT PRACTICES AMONG PUBLIC SCHOOLS: BIHAR

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ABSTRACT

Testing and assessment are central to the quality of school education because they provide evidence about students' learning, competencies, progress, and educational needs. In Bihar's public-school system, however, assessment practices continue to face several structural, pedagogical, institutional, and socio-cultural challenges. Traditional examinations often emphasise memorisation, reproduction of textbook content, and marks rather than conceptual understanding, critical thinking, creativity, problem-solving, and socio-emotional development. This research article critically examines the major issues and challenges associated with testing and assessment practices in public schools of Bihar. The discussion is based on secondary sources, including the National Education Policy (NEP) 2020, National Curriculum Framework for School Education (NCF-SE) 2023, Ministry of Education reports, and evidence from ASER and the Bihar Elementary School Study. The article examines issues such as examination-oriented teaching, inadequate formative assessment, teacher workload, large and heterogeneous classrooms, limited assessment literacy, language and socio-economic diversity, resource constraints, reliability and validity concerns, excessive dependence on written examinations, and the limited use of assessment data for instructional improvement. The article argues that assessment reform in Bihar requires a shift from a marks-centred examination culture to a competency-based, continuous, inclusive, diagnostic, and learner-centred assessment system. Strengthening teachers' assessment competencies, building school-level assessment capacity, using portfolios and projects, integrating technology appropriately, and establishing systematic feedback mechanisms can substantially improve learning outcomes in public schools.

KEYWORDS: Testing, Assessment, Public Schools Bihar, Competency-Based Assessment, NEP 2020.

INTRODUCTION

Assessment occupies a central position in the educational process. It serves not only to measure what students have learned but also to determine how learning is progressing, where difficulties exist, and what pedagogical interventions are required. In contemporary educational thinking, assessment is increasingly understood as an integral component of teaching and learning rather than as an activity that occurs only at the end of a course or academic year. Traditional school systems, however, have frequently placed greater emphasis on examinations, marks, grades, promotion, and certification. Such practices can create an examination-oriented culture in which students learn primarily to reproduce information in tests rather than to develop conceptual understanding, critical thinking, creativity, communication, collaboration, and problem-solving abilities. This issue is particularly important in the context of public schools in Bihar. Bihar has made substantial progress in expanding access to schooling, but the challenge of ensuring meaningful learning remains significant. Evidence from large-scale assessments has repeatedly demonstrated that grade enrolment and grade progression cannot automatically be interpreted as evidence of grade-appropriate learning. The Bihar Elementary School Study, for example, assessed more than 60,000 children in over 1,000 government schools across the state and demonstrated the value of systematic assessment for understanding learning outcomes and strengthening the capacity of educational functionaries.

At the national policy level, the National Education Policy (NEP) 2020 calls for a significant transformation of assessment. It advocates regular, formative, competency-based assessment focused on learning and development, higher-order skills, and the continuous improvement of teaching-learning processes. The central issue, therefore, is not whether schools should assess students, but what assessment should accomplish, what forms it should take, and how assessment evidence should be used to improve learning.

Objectives of the Review

The present review research article aims to:

- examine the conceptual foundations of testing and assessment in school education;
- review existing assessment practices in the context of public schools in Bihar;
- identify major issues and challenges associated with testing and assessment;

- examine the relationship between examination-oriented assessment and classroom pedagogy;
- analyse issues of validity, reliability, equity, and inclusiveness;
- examine the role of teachers and institutional capacity in assessment practices;
- review the implications of NEP 2020 and NCF-SE 2023 for assessment reform; and
- suggest strategies for strengthening assessment practices in Bihar's public schools.

Methodology of the Review

The article adopts a narrative review and critical policy-analysis approach. Relevant literature and documentary evidence were examined from:

- Government of India policy documents;
- Ministry of Education publications;
- NCERT and PARAKH materials;
- ASER reports and Bihar-specific assessment studies;
- research literature on educational assessment;
- scholarship on formative and summative assessment; and
- literature concerning equity, validity, assessment literacy, and competency-based education.

Particular attention was given to evidence that directly illuminates assessment and learning in Bihar's government/public-school context.

The review does not claim to constitute a systematic meta-analysis. Rather, it seeks to integrate policy, empirical evidence, and theoretical perspectives into a critical understanding of assessment practices in Bihar.

Conceptualising Testing and Assessment

Testing refers primarily to the systematic measurement of particular aspects of students' knowledge, skills or competencies through instruments such as written tests, oral examinations, practical tasks and standardised assessments. Assessment is a broader concept that includes the collection, interpretation and use of evidence about learning.

Three broad purposes of assessment can be distinguished:

- **Assessment of Learning:** Assessment of learning is generally summative. It determines what students have achieved at the end of a unit, course or academic period. Annual examinations and board examinations are common examples.

- **Assessment for Learning:** Assessment for learning is formative. It provides teachers and learners with information that can be used to modify teaching and learning while the learning process is occurring.
- **Assessment as Learning:** Assessment as learning emphasises students' active participation in evaluating their own learning through reflection, self-assessment and peer assessment.
- **Diagnostic assessment:** Used to identify specific learning difficulties and gaps.
- **Competency-based assessment:** Focuses on whether students can demonstrate knowledge, skills, values, and dispositions in meaningful contexts.
- **Holistic assessment:** Attempts to capture multiple dimensions of student development rather than reducing achievement to a single numerical score.

A major challenge in Bihar, as in many parts of India, is that these purposes are often insufficiently differentiated. Assessment intended to diagnose learning difficulties may become another formal test, while formative assessment may become a record-keeping exercise rather than a pedagogical process.

Evolution of Assessment Thinking in India

Indian assessment policy has progressively moved from a predominantly examination-centred model towards continuous, comprehensive and learning-oriented approaches. The National Curriculum Framework (NCF) 2005 questioned examination practices that encouraged rote learning and argued for assessment integrated with classroom learning. The subsequent introduction of Continuous and Comprehensive Evaluation (CCE) represented an attempt to broaden assessment beyond conventional examinations. However, research has documented significant implementation problems. Vandana and Masih (2022) note that different assessment reforms, including Minimum Levels of Learning, CCE and learning-outcomes approaches, have encountered conceptual and implementation difficulties.

Similarly, evidence from India's CCE experience suggests that simply increasing the frequency of assessment does not necessarily change instructional practice or improve learning outcomes. Muralidharan and Sundararaman (2020) found that CCE encouraged evaluation but did not produce corresponding changes in teaching practices or student test performance.

NEP 2020 represents a more explicit attempt to redefine the purpose of assessment. It proposes regular, formative and competency-based assessment and emphasises higher-order abilities such as analysis, critical thinking and conceptual clarity.

Assessment Practices in Bihar's Public Schools

Bihar's public-school assessment environment consists of several layers:

- Classroom-based assessment;
- Periodic school examinations;
- Competency or learning-outcome assessments;
- State-level assessments;
- Board examinations;
- National achievement surveys; and
- Independent learning assessments.

The Bihar Elementary School Study provides an important example of state-wide assessment. Conducted in collaboration with the Bihar government and UNICEF, it assessed Hindi and mathematics learning among students in Grades 2, 4, and 6 across randomly selected clusters in all districts. The assessment covered more than 1,000 schools and approximately 60,000 children. Importantly, it also aimed to build district-level capacity for conducting and interpreting assessments.

Such studies illustrate a critical principle: assessment should generate information that can be used for instructional improvement, not merely produce rankings.

More recent assessment architecture at the national level also moves toward competency-based measurement. PARAKH's State Educational Achievement Survey 2023 was designed to assess competencies at Grades 3, 6, and 9 and to generate block-level evidence that could inform educational policies and teacher-development programmes.

Major Issues in Testing and Assessment Practices

Examination-Oriented Culture

One of the most significant challenges is the persistence of an examination-oriented culture. When school success is strongly associated with:

- Examination marks,
- Pass percentages,
- Ranks,

- Board results, and
- Competitive performance,

Teachers may feel pressure to organise classroom teaching around anticipated examination requirements. This creates a cycle.

Excessive Dependence on Written Examinations

Written examinations remain attractive because they are relatively economical and administratively convenient, especially in systems serving large numbers of students.

However, conventional written tests are limited in their ability to assess:

- Creativity;
- Communication;
- Collaboration;
- Practical competence;
- Inquiry;
- Problem-solving;
- Socio-emotional development;
- Application of knowledge; and
- Real-world performance.

Consequently, a student's examination score may provide only a partial picture of learning. A comprehensive assessment system should therefore combine written assessment with performance-based and authentic forms of evidence.

Memorisation versus Conceptual Understanding

A major concern is the tendency of conventional assessments to reward recall and reproduction. For example, asking students to reproduce a definition may demonstrate memory. Asking them to apply a concept to an unfamiliar situation provides evidence of deeper understanding. NEP 2020 explicitly seeks a movement away from assessment dominated by rote memorisation toward assessment of conceptual clarity, analysis, critical thinking, and other higher-order competencies. The challenge for Bihar is therefore to ensure that classroom assessment reflects the competencies that educational policy seeks to develop.

Teacher Assessment Literacy

Teachers are central to successful assessment reform. Assessment literacy includes the ability to:

- Formulate learning outcomes;
- Develop appropriate assessment tasks;
- Construct quality questions;
- Identify different cognitive levels;
- Use rubrics;
- Interpret assessment evidence;
- Provide feedback;
- Identify misconceptions;
- Conduct diagnostic assessment; and
- Modify instruction based on evidence.

Without adequate assessment literacy, competency-based assessment may become merely a change in terminology rather than a genuine change in practice.

The Bihar Elementary School Study provides a useful precedent because capacity building of district-level stakeholders was explicitly integrated into the assessment process.

Heterogeneity of Learning Levels

One of the most important challenges for Bihar's public schools is the variation in learning levels within the same classroom. A student formally enrolled in Grade 5 may not necessarily have Grade 5-level reading or mathematics skills. ASER's methodology is particularly relevant here because it assesses children according to what they can actually do rather than assuming that grade placement corresponds to learning level. ASER notes that children within a single grade can demonstrate substantial variation in reading and arithmetic ability.

A uniform test may identify that students are performing differently, but diagnostic assessment is required to understand why they are performing differently and what intervention is appropriate.

Language and Linguistic Challenges

Language can influence assessment performance. Students may experience difficulty because:

- The language of assessment differs from the language used at home;
- Questions contain unnecessarily complex linguistic structures;

- Academic vocabulary is unfamiliar;
- Students have weak reading fluency; or
- They understand the concept but cannot express it in the expected form.

In a multilingual state such as Bihar, assessment design needs to distinguish between conceptual difficulty and language-mediated difficulty. Language-sensitive assessment is therefore an important component of equitable assessment.

Socio-Economic Inequality

Examination performance is influenced not only by school-based learning but also by children's broader educational environments. Students differ in their access to:

- Educational materials;
- Books;
- Digital devices;
- Parental academic support;
- Quiet study spaces; and
- Additional learning opportunities.

Consequently, identical examination conditions do not necessarily represent identical educational opportunities. This raises an important issue of substantive equity.

Teacher Workload and Assessment Burden

Effective assessment requires considerable teacher time. Teachers may have to:

- Prepare tests;
- Administer examinations;
- Evaluate scripts;
- Maintain records;
- Enter data;
- Provide feedback;
- Prepare reports;
- Conduct remedial activities; and
- Participate in administrative and examination duties.

If assessment reforms add documentation without reducing unnecessary workload, teachers may perceive assessment as a bureaucratic obligation rather than as an instructional resource.

Assessment reform should therefore prioritise quality and usefulness over excessive paperwork.

Assessment and Pedagogy

Assessment practices strongly influence pedagogy. If examinations predominantly reward memorisation, teachers are likely to devote greater time to:

- Textbook explanation;
- Note-making;
- Question-answer practice;
- Repetition;
- Model answers; and
- Previous examination papers.

Conversely, when assessment rewards application and reasoning, teachers have greater incentive to use:

- Inquiry-based learning;
- Problem-solving;
- Projects;
- Experiments;
- Discussion;
- Collaborative learning; and
- Authentic tasks.

Thus, assessment does not merely measure pedagogy; it helps shape pedagogy. This is why assessment reform cannot be separated from curriculum and pedagogical reform.

Assessment and Student Well-Being

Examination-centred systems can create psychological pressure. Students may experience:

- Fear of failure;
- Examination anxiety;
- Excessive competition;
- Fear of parental disappointment;
- Reduced intrinsic motivation; and
- Negative perceptions of learning.

When academic success is narrowly defined through marks, students may avoid intellectual risk-taking because making mistakes is perceived as failure. A healthy assessment culture should treat errors as **evidence for learning**, not merely as evidence of deficiency.

Inclusion and Equity

Assessment should be inclusive of students with diverse learning needs. Potential barriers include:

- Disability;
- Language differences;
- Socio-economic disadvantage;
- Gender-related constraints;
- Learning difficulties;
- Geographical isolation; and
- Unequal access to technology.

Inclusive assessment does not mean lowering standards. It means ensuring that irrelevant barriers do not prevent students from demonstrating their competencies.

Digital Assessment: Opportunities and Challenges

Digital technology offers opportunities for:

- Rapid diagnostic testing;
- Digital portfolios;
- Online quizzes;
- Automated scoring;
- Learning analytics;
- Individualized feedback; and
- Monitoring of learning progression.

However, digital assessment also creates risks where students have unequal access to devices, connectivity, electricity, or digital skills.

Therefore, technology should be introduced according to educational need rather than treated as an end in itself.

NEP 2020 and the Changing Assessment Paradigm

NEP 2020 provides an explicit framework for transforming school assessment. It emphasises assessment that is:

- Regular;
- Formative;
- Competency-based;
- Developmental;
- Learner-centred;
- Focused on higher-order thinking; and
- Useful for improving teaching and learning.

NEP 2020 also envisages **PARAKH** as a national assessment centre responsible for setting norms and standards, supporting achievement surveys, and encouraging school boards to move toward assessment patterns aligned with twenty-first-century skills.

NCF-SE 2023 and Holistic Assessment

The National Curriculum Framework for School Education 2023 further strengthens the movement toward competency-based and holistic assessment. PARAKH has developed Holistic Progress Cards intended to capture not only academic achievement but also dimensions such as social-emotional development and creativity. The significance of this approach for Bihar is substantial.

Major Challenges in Implementing Assessment Reform in Bihar

Dimension	Existing/likely challenge	Educational implication
Examination culture	High emphasis on marks	Teaching to the test
Teacher capacity	Limited assessment literacy	Poorly designed assessments
Classroom diversity	Different learning levels	One-size-fits-all assessment
Time	High workload	Limited feedback
Resources	Unequal facilities	Limited practical assessment
Language	Linguistic diversity	Risk of construct-irrelevant difficulty
Data use	Limited diagnostic analysis	Weak remedial action
Inclusion	Diverse learner needs	Unequal assessment opportunities
Pedagogy	Memorization orientation	Reduced higher-order learning
Technology	Digital divide	Unequal access to digital assessment

Recommendations

Establish an Assessment-for-Learning Culture

Schools should redefine assessment as a tool for improving learning rather than merely ranking students.

Align Curriculum, Pedagogy and Assessment

There should be clear alignment between:

Learning outcomes → Teaching methods → Learning activities → Assessment → Feedback

Misalignment among these elements weakens the effectiveness of the entire educational process.

Strengthen Teacher Assessment Literacy

Teacher professional development should provide practical training in:

- Assessment design;
- Competency mapping;
- Question construction;
- Rubrics;
- Formative assessment;
- Diagnostic assessment;
- Portfolio assessment;
- Feedback; and
- Interpretation of learning data.

Introduce Multiple Assessment Methods

Assessment should combine:

- Written tests;
- Oral assessment;
- Practical activities;
- Projects;
- Portfolios;
- Observation;
- Presentations;
- Peer assessment;
- Self-assessment; and
- Performance-based tasks.

No single method can adequately measure all dimensions of learning.

Strengthen Diagnostic Assessment

Schools should identify the actual learning level of students at the beginning of a learning cycle. The diagnostic process should be followed by targeted intervention.

Baseline → Diagnosis → Remediation → Reassessment

Reduce Excessive Examination Pressure

Periodic examinations should be used strategically rather than excessively. The aim should be to obtain useful evidence rather than maximize the number of tests.

Develop School-Level Assessment Plans

Each public school could develop an annual assessment plan specifying:

- Competencies;
- Assessment methods;
- Assessment calendar;
- Feedback mechanisms;
- Remedial interventions;
- Enrichment activities; and
- Data-use procedures.

CONCLUSION

Testing and assessment practices are central to the quality and equity of public education in Bihar. The review identifies several interconnected challenges: examination-oriented culture, excessive reliance on written examinations, memorisation-based assessment, weak formative assessment, limited teacher assessment literacy, heterogeneous learning levels, language-related barriers, socio-economic inequalities, concerns regarding validity and reliability, teacher workload, inadequate use of assessment data, and limited integration of assessment with remedial teaching.

The evidence also indicates that Bihar has important foundations on which to build. State-wide assessment initiatives have demonstrated the feasibility of large-scale learning assessment and capacity building, while national reforms under NEP 2020, PARAKH, and NCF-SE 2023 provide a clear direction toward competency-based and holistic assessment.

REFERENCES

1. ASER Centre. (2014). *Bihar Elementary School Study*. Pratham Education Foundation.
2. ASER Centre. (2024). *Annual Status of Education Report (Rural) 2024*. Pratham Education Foundation.
3. Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7–74.
4. Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). Greenwood Press.
5. Brookhart, S. M. (2008). *How to give effective feedback to your students*. ASCD.
6. Government of India, Ministry of Education. (2020a). *National Education Policy 2020*. Ministry of Education.
7. Government of India, Ministry of Education. (2020b). *Towards competency-based assessments in schools: Transforming assessment for optimising learning and development*. Ministry of Education.
8. Government of India, Ministry of Education. (2023a). *A roadmap for competency-based assessment: PARAKH*. Ministry of Education.
9. Government of India, Ministry of Education. (2023b). *State Educational Achievement Survey 2023: PARAKH successfully conducted*. Ministry of Education.
10. Government of India, Ministry of Education. (2024). *Annual report 2023–24*. Ministry of Education.
11. National Council of Educational Research and Training. (2023). *National curriculum framework for school education 2023*. NCERT.
12. Popham, W. J. (2008). *Transformative assessment*. ASCD.
13. Stiggins, R. J. (2005). From formative assessment to assessment for learning: A path to success in standards-based schools. *Phi Delta Kappan*, 87(4), 324–328.
14. Wiliam, D. (2011). *Embedded formative assessment*. Solution Tree Press.