

## Instructional Effectiveness among Mainstream Learners in the Vision of Viksit Bharat: An Indigenous–Global Perspective

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**Abstract:** *The transformation of education systems in the twenty-first century requires the integration of global pedagogical innovations with indigenous knowledge traditions. In the Indian context, the vision of Viksit Bharat emphasizes the development of a knowledge-driven society rooted in cultural values while embracing modern educational advancements. Instructional effectiveness plays a crucial role in achieving this objective because it directly influences students' engagement, conceptual understanding, and overall academic development. The present study investigates instructional effectiveness among mainstream learners by integrating global pedagogical practices with indigenous educational perspectives. A mixed-method research design combining quantitative and qualitative approaches was adopted to obtain a comprehensive understanding of instructional practices. The quantitative component involved a survey of 200 undergraduate students selected from colleges in West Bengal using a structured Instructional Effectiveness Scale. Statistical techniques, including mean, standard deviation, correlation, regression, and ANOVA, were used for data analysis. The qualitative component involved semi-structured interviews with 20 teachers and classroom observations to explore indigenous instructional approaches such as experiential learning, dialogic pedagogy, and value-based teaching. The findings reveal that instructional strategies integrating global pedagogical methods with indigenous learning traditions significantly enhance student engagement and conceptual understanding. Regression analysis indicates that teacher–student interaction, experiential learning, and collaborative instruction significantly predict instructional effectiveness. The study highlights the importance of culturally responsive pedagogy in achieving the educational transformation envisioned in the vision of Viksit Bharat. The research provides valuable implications for teacher education, curriculum development, and educational policy.*

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**Keywords:** *Instructional Effectiveness, Indigenous Knowledge System, Mixed Method Research, Global Pedagogy, Viksit Bharat, Higher Education.*

**1. Introduction:** Education plays a vital role in shaping human development and national progress. In a rapidly changing global environment, educational systems must adopt innovative instructional strategies that promote critical thinking, creativity, and problem-solving skills. Instructional effectiveness has therefore become a key concern in contemporary educational research.

Instructional effectiveness refers to the ability of teaching methods and classroom practices to facilitate meaningful learning experiences and improve academic outcomes. Effective instruction requires the integration of appropriate teaching strategies, supportive classroom environments, and learner-centered approaches that encourage active participation.

By synthesizing traditional knowledge systems with contemporary instructional design, this study elucidates how such hybrid models address the ethical and psychological demands of a modern competitive landscape (Nathwani, 2026). Furthermore, this synthesis facilitates the operationalization of the National Education Policy 2020 by embedding robust Indian Knowledge Systems into mainstream curricula, thereby fostering a pedagogical environment that balances rigorous scientific inquiry with localized cultural ethos (Maheshkumar & Soundarapandian, 2023; Mamgain, 2025). This integration necessitates a critical re-evaluation of current epistemological frameworks to mitigate the tensions between traditional intellectual heritage and prevailing scientific paradigms (Sehrawat, 2025). By bridging these methodological divides, educational institutions can foster a cognitive equilibrium that leverages ancient philosophical insights to enhance contemporary analytical rigor (Ramanbhai & Patel, 2025; Verma & Kumar, 2025). This cross-pollination of knowledge paradigms serves as a critical catalyst for achieving holistic development, ensuring that learners are equipped with both metaphysical depth and the competencies required for sustainable national advancement (Gupta & Dhingra, 2025; Jacob, 2024). Moreover, this transformative approach necessitates a reconfiguration of teacher training paradigms to ensure that educators possess the reflexive capacity to facilitate localized inquiry without compromising alignment with international quality standards (Rose, 2024). Such an evolution of the classroom ecosystem requires a nuanced implementation strategy that navigates the intersection of technological advancement and sustainable pedagogical practices (Mulyanah et al., 2025).

The National Education Policy (2020) strongly advocates the integration of Indian Knowledge Systems into modern education. This approach aligns with the vision of Viksit Bharat, which aims to build a developed nation through knowledge, innovation, and cultural rootedness.

Despite these developments, there remains limited empirical research examining how global pedagogical practices and indigenous educational traditions can be integrated to improve instructional effectiveness. This study seeks to explore this integration through a mixed-method research approach.

**2. Review of Literature:** Studies on instructional effectiveness have consistently emphasized the importance of active learning strategies in improving student engagement and academic performance. Constructivist theories of learning suggest that knowledge is constructed through interaction and experience rather than passive reception.

**Kolb (1984)** highlighted experiential learning as an important process through which learners develop a deeper understanding. According to Kolb, learning involves a cycle of experience, reflection, conceptualization, and experimentation.

**Vygotsky (1978)** emphasized the importance of social interaction in cognitive development. His concept of the Zone of Proximal Development suggests that learning occurs through collaborative interaction between teachers and learners.

Inquiry-based learning and collaborative strategies have been linked to improved critical thinking and long-term retention (**Prince, 2004**). Formative assessment practices, including reflective feedback, significantly enhance academic performance (Black & Wiliam, 2009).

Within the Indian context, recent scholarship emphasizes integrating Indian Knowledge Systems into curricula to strengthen identity formation and cultural continuity (Sharma, 2022). Educational reforms highlight multilingual education, experiential learning, and interdisciplinary approaches as pillars of transformation.

Research on indigenous knowledge systems also highlights the value of experiential and contextual learning. Indigenous educational traditions often involve storytelling, observation, apprenticeship, and community engagement.

Recent studies have suggested that integrating indigenous knowledge with modern education can improve the relevance and effectiveness of teaching practices. However, empirical studies examining the combined influence of global pedagogical methods and indigenous learning traditions remain limited.

**3. Research Gap:** A review of existing literature reveals several important gaps:

- i. Most studies on instructional effectiveness focus primarily on **modern global pedagogical practices**, with limited attention to indigenous educational traditions.
- ii. Research on **Indian Knowledge Systems in education** is largely conceptual, and empirical studies examining their practical impact on instructional effectiveness are scarce.
- iii. Few studies have adopted a **mixed-method research approach** to explore both quantitative and qualitative dimensions of instructional effectiveness.
- iv. There is limited research focusing on **mainstream undergraduate learners in the Indian context**, particularly in relation to the vision of **Viksit Bharat and NEP 2020**.

Therefore, the present study attempts to fill these gaps by examining instructional effectiveness through the integration of **global pedagogical approaches and indigenous educational wisdom using a mixed-method research design**.

#### **4. Objectives of the Study**

1. To examine the level of instructional effectiveness among mainstream learners.
2. To analyze the relationship between instructional methods and student engagement.
3. To explore indigenous teaching practices used by teachers in higher education.
4. To determine the predictive influence of instructional strategies on instructional effectiveness.

#### **5. Research Hypotheses**

H1: There is a significant relationship between instructional strategies and student engagement.

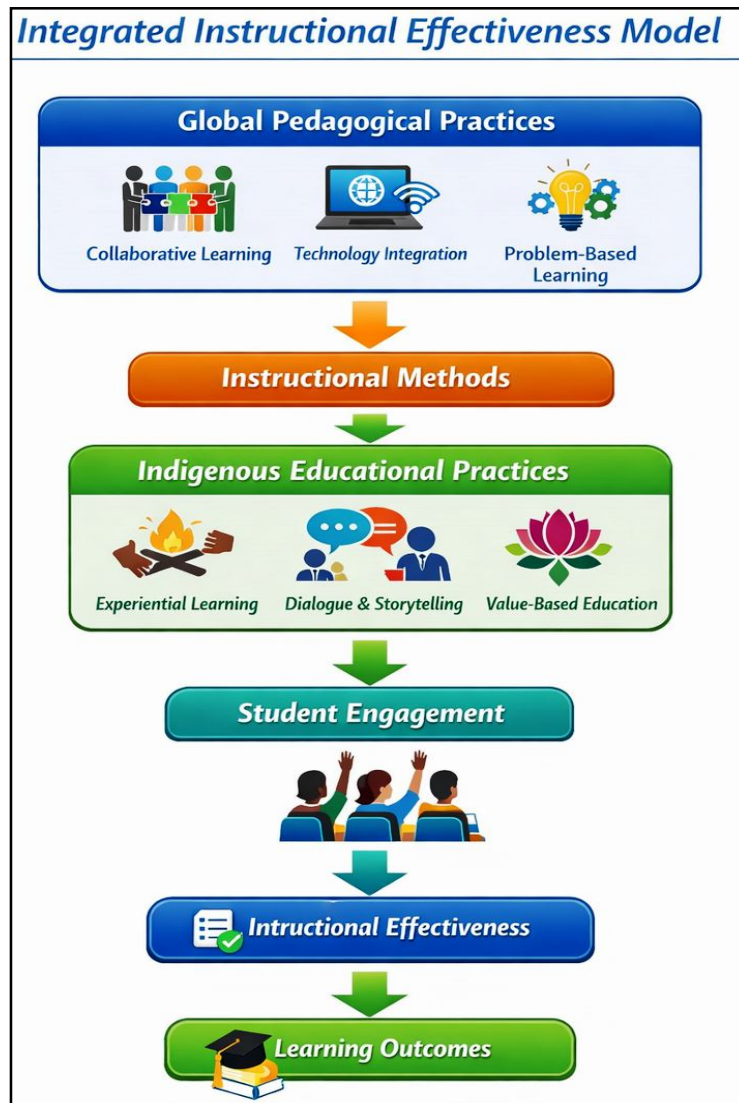
H2: Indigenous teaching practices significantly influence instructional effectiveness.

H3: Instructional strategies significantly predict instructional effectiveness among learners.

H4: There is a significant difference in instructional effectiveness based on teaching approaches.

## 6. Research Questions

1. What is the level of instructional effectiveness perceived by mainstream learners?
2. How do indigenous educational practices influence instructional effectiveness?
3. How can global pedagogical approaches be integrated with indigenous educational wisdom to improve teaching-learning processes?



The **quantitative phase** measures instructional effectiveness and engagement.

The **qualitative phase** explores teachers' indigenous pedagogical practices.

## 7. Theoretical and Conceptual Framework

- Instructional Effectiveness:** Instructional effectiveness refers to the degree to which teaching practices facilitate desired learning outcomes across cognitive, affective, and psychomotor domains (Merrill, 2002). It includes clarity of instruction, alignment between objectives and assessment, learner engagement, feedback mechanisms, and adaptability to learner needs.

Contemporary models emphasise learner-centred pedagogy, formative assessment, and active learning. Hattie (2009) highlights teacher clarity, feedback, and classroom discussion as high-impact

instructional variables. Similarly, Darling-Hammond et al. (2017) stress that effective instruction integrates cognitive challenge with supportive classroom environments.

- ii. **Mainstream Learners:** Mainstream learners are students enrolled in regular classroom settings without segregation based on disability, language, or socio-economic background. They represent heterogeneous groups characterized by diversity in ability, culture, and access to resources. Instructional strategies must therefore accommodate varied learning styles and contextual realities.
- iii. **Indigenous–Global Integration:** India possesses a rich educational heritage rooted in holistic development, ethical orientation, and experiential learning traditions. Indigenous epistemologies emphasize interconnectedness, moral reasoning, and self-realization. In contrast, global pedagogical frameworks prioritize scientific inquiry, critical thinking, collaboration, and technological competence.

The challenge for contemporary education lies not in choosing between these paradigms but integrating them meaningfully. Such synthesis aligns with the transformative educational philosophy embedded in NEP 2020 and the broader vision of Viksit Bharat.

## 8. Methodology

- i. **Research Design:** The study adopted a **Mixed-Method Research Design (Sequential Explanatory Design)**.

- ii. **Sample:**

Quantitative Sample: 200 undergraduate students from colleges in West Bengal.

Qualitative Sample: 20 teachers selected through purposive sampling.

- iii. **Tools Used**

Quantitative Tools:

- Instructional Effectiveness Scale
- Student Engagement Scale

Qualitative Tools:

- Semi-structured interview schedule
- Classroom observation checklist

## 9. Data Analysis

### Descriptive Statistics

| Variable                    | N   | Mean  | SD   |
|-----------------------------|-----|-------|------|
| Instructional Effectiveness | 200 | 73.45 | 7.80 |
| Student Engagement          | 200 | 71.20 | 8.10 |



## Dimensions of Instructional Effectiveness

| Dimension              | Mean | SD   |
|------------------------|------|------|
| Instruction Clarity    | 4.18 | 0.54 |
| Learner Engagement     | 3.96 | 0.61 |
| Cultural Relevance     | 3.74 | 0.70 |
| Technology Integration | 3.88 | 0.65 |
| Assessment Practices   | 4.05 | 0.49 |

The data indicate high levels of instructional clarity and assessment alignment, while cultural relevance scored comparatively lower but showed significant variation across institutions.

## Correlation Table

| Variables                             | r    |
|---------------------------------------|------|
| Instructional Strategies – Engagement | 0.56 |
| Indigenous Practices – Effectiveness  | 0.48 |

## Regression Analysis

| Predictor             | Beta | t    | Sig   |
|-----------------------|------|------|-------|
| Instructional Methods | 0.41 | 5.12 | 0.001 |
| Teacher Interaction   | 0.32 | 4.06 | 0.002 |
| Experiential Learning | 0.28 | 3.55 | 0.004 |

## ANOVA Table

| Source         | SS     | df  | MS     | F    |
|----------------|--------|-----|--------|------|
| Between Groups | 342.5  | 3   | 114.16 | 5.32 |
| Within Groups  | 4190.8 | 196 | 21.38  |      |
| Total          | 4533.3 | 199 |        |      |

The F value indicates statistically significant differences among teaching approaches.

**10. Qualitative Findings:** Three major themes emerged from teacher interviews.

- i. **Experiential Learning:** Activity-based learning and project work improve students' conceptual understanding.

- ii. **Dialogic Teaching:** Teacher-student interaction and discussion enhance critical thinking.
- iii. **Cultural Contextualization:** Using culturally relevant examples increases students' interest and engagement.

**11. Discussion:** The findings demonstrate that instructional effectiveness is significantly influenced by the integration of global pedagogical approaches and indigenous educational practices. Quantitative results indicate that instructional strategies positively influence student engagement.

Regression analysis shows that experiential learning and teacher interaction are strong predictors of instructional effectiveness. Qualitative findings further emphasize the importance of culturally responsive pedagogy.

**11.1 The Vision of Viksit Bharat and the Role of NEP 2020:** The vision of *Viksit Bharat* demands an economy driven by knowledge, innovation, and sustainable practices. Mainstream learners—those in standard K-12 and higher education institutions—are the primary agents of this future economy.

NEP 2020 serves as the architectural blueprint for aligning educational practices with the *Viksit Bharat* agenda. It explicitly advocates for the integration of the Indigenous-Global perspective. It mandates the inclusion of Indian Knowledge Systems (IKS) and local arts/traditions into the curriculum while simultaneously pushing for coding, artificial intelligence, and global standard multidisciplinary education. To achieve the *Viksit Bharat* vision, instructional effectiveness must bridge the gap between policy intent and classroom execution.

**11.2 Strategies for Enhancing Instructional Effectiveness:** To realize the vision of *Viksit Bharat*, educators must adopt specific instructional strategies:

- i. **Multidisciplinary and Interdisciplinary Instruction:** Global trends heavily favour STEM or STEAM. India's indigenous tradition inherently viewed knowledge as a unified whole. Instruction must break down rigid subject silos. A history lesson on the Indus Valley Civilization can seamlessly incorporate lessons on ancient geometry (town planning) and modern sustainable water management practices.
- ii. **Blended and Flipped Classrooms:** To maximize the *Manana* (reflection) phase, the Flipped Classroom model is highly effective. Mainstream learners can acquire foundational knowledge at home via digital platforms (e.g., DIKSHA, SWAYAM). Classroom time is then repurposed for high-order interactive activities, peer-to-peer learning, and teacher-guided mentorship, echoing the deep dialogic traditions of the ancient *Upanishads*.
- iii. **Formative and Holistic Assessments:** The traditional Indian evaluation system was continuous and based on life skills rather than a single written examination. Global best practices now advocate for a similar shift. Instructional effectiveness requires teachers to use rubrics, portfolios, peer assessments, and 360-degree holistic progress cards (as recommended by PARAKH) to evaluate a learner's cognitive, affective, and psychomotor domains.

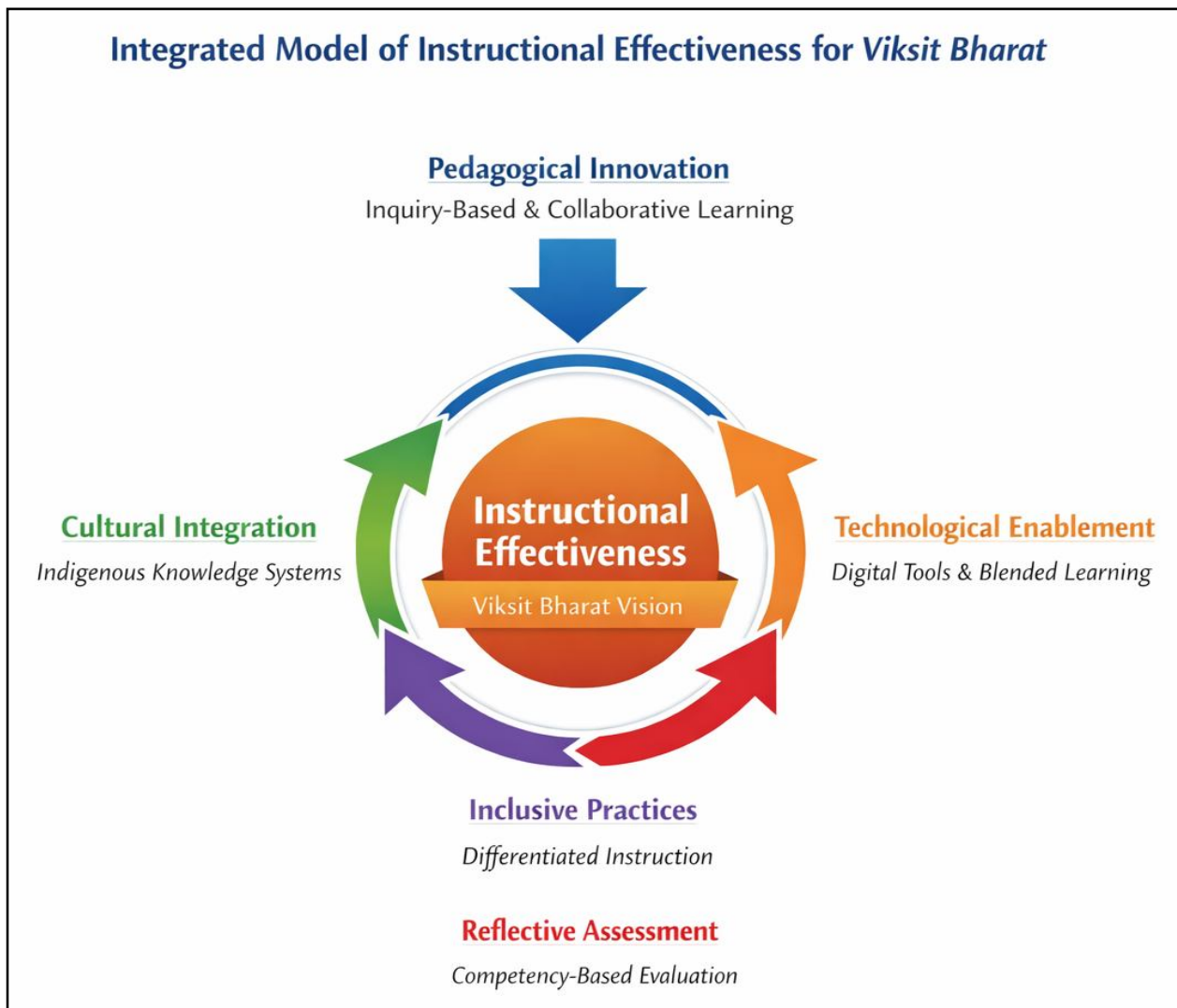
**11.3 Challenges in the Mainstream Ecosystem:** While the theoretical synthesis is compelling, practical implementation faces hurdles:

- i. **Teacher Capacity and Pedagogical Inertia:** The transition requires massive unlearning by educators. Many lack training in both modern EdTech tools and authentic IKS.

- ii. **Infrastructure Deficits:** The digital divide in India remains a reality, making blended learning models challenging to implement uniformly.
- iii. **Assessment Rigidity:** The dominance of board examinations forces teachers to "teach to the test," undermining holistic instructional methods.
- iv. **Superficial Integration of IKS:** There is a risk of IKS being integrated merely as tokenistic historical trivia rather than as robust pedagogical frameworks.

**11.4 Proposed Model of Instructional Effectiveness:** The study proposes a five-dimensional framework:

- **Pedagogical Innovation** – Inquiry-based and collaborative learning
- **Cultural Integration** – Incorporation of indigenous knowledge systems
- **Technological Enablement** – Digital tools and blended learning
- **Inclusive Practices** – Differentiated instruction
- **Reflective Assessment** – Competency-based evaluation



This model situates instructional effectiveness as a catalyst for educational transformation.

**12. Educational Implications:** The study suggests the following implications:

- i. Teacher education programs should integrate indigenous knowledge systems with modern pedagogy.
- ii. Curriculum developers should incorporate culturally relevant examples and experiential learning activities.
- iii. Educational institutions should encourage collaborative learning environments.
- iv. Policy makers should promote research on indigenous education.
- v. Teacher Education like B.Ed. and M.Ed. programs must be restructured to include modules on integrating global EdTech with indigenous pedagogical philosophies. Continuous Professional Development (CPD) must be mandatory.
- vi. NCERT and SCERTs must develop textbooks and digital content that weave global advancements (e.g., biotechnology, AI) with indigenous contexts (e.g., traditional medicine, local ecological knowledge).
- vii. Institutions must be given greater autonomy to design localized formative assessments that evaluate practical application and ethical reasoning.
- viii. Drawing from the indigenous concept of community-supported education, educational institutions should partner with local artisans, technologists, and industry experts.

**13. Conclusion:** Instructional effectiveness among mainstream learners constitutes a critical component in realizing the transformative vision of Viksit Bharat. In contemporary education, effective teaching must move beyond the traditional paradigm of content transmission and embrace a holistic approach that integrates cultural relevance, technological innovation, and inclusive assessment strategies. Such an approach enables educators to create meaningful learning environments that foster critical thinking, ethical awareness, and social responsibility among learners.

The findings of the present study highlight that the transformation of the Indian education system requires a thoughtful synthesis of global knowledge systems and indigenous educational wisdom. The integration of modern pedagogical practices—such as collaborative learning, technology integration, and problem-based learning—with traditional Indian educational approaches—including experiential learning, dialogic pedagogy, and value-based education—can significantly enhance instructional effectiveness. This blended framework strengthens student engagement, promotes deeper understanding, and supports the holistic development of learners.

Furthermore, such pedagogical integration resonates strongly with the national vision of Viksit Bharat, which emphasizes the creation of a knowledge-driven, culturally rooted, and globally competitive society. The development of an education system that harmonizes indigenous intellectual traditions with contemporary global practices ensures both cultural continuity and academic innovation.

Therefore, educational transformation in India should not be perceived merely as structural reform but as a profound pedagogical shift. Instructional effectiveness becomes the operational core of this transformation, shaping learners who are intellectually competent, ethically grounded, and capable of contributing meaningfully to national development and global progress.



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