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Mode of Education in India: Behavioural Foundations, Systemic Challenges and the Future of Learning Under Nep 2020

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Abstract

India's educational ecosystem has been reshaped by rapid technological advancement, the COVID-19 pandemic, and the introduction of the National Education Policy (NEP 2020). This paper develops a theoretical framework to understand the behavioural dynamics underlying students' responses to online, offline, and hybrid learning modes. Drawing on principles from behavioural economics, such as bounded rationality, cognitive overload, present bias, and social preference, he study examines how psychological factors shape learning experiences beyond conventional economic explanations. The paper also discusses systemic barriers, including digital disparities, pedagogical limitations, institutional capacity gaps, and mental health challenges. Using Self-Determination Theory (autonomy, competence, relatedness) as a behavioural anchor, the analysis argues that hybrid learning offers the most balanced educational environment for Indian students. Finally, the paper outlines policy directions under NEP 2020 and proposes a conceptual behavioural model that captures the trade-offs inherent in different modes of learning.

Keywords: Online education, Offline learning, Hybrid learning, Behavioural economics, NEP 2020, Cognitive load, Self-Determination Theory, Student motivation, Digital divide, Higher education India
JEL Classification: I21, I23, I24, D91, D90

1. INTRODUCTION

The landscape of higher education in India is undergoing a profound transformation. The adoption of technology-enabled instruction, the push for multidisciplinary learning, and the structural reforms under NEP 2020 have collectively shifted the focus from rigid, classroom-based learning to more flexible, student-centred models. However, the effectiveness of these modes (online, offline, and hybrid) cannot be evaluated merely through technological or administrative lenses. Learning is deeply behavioural: students' decisions, motivation patterns, stress responses, and social interactions play a crucial role in shaping educational outcomes.

Behavioural economics offers a rich toolkit for understanding these dynamics. Students often operate under bounded rationality, face cognitive burdens, and rely on heuristics when navigating learning environments (Kahneman, 2011). Consequently, their educational choices and performance are influenced not only by institutional design but also by psychological constraints and social contexts. This paper contributes a theoretical analysis of India's evolving educational modes and examines their behavioural implications within the policy framework of NEP 2020.

2. Behavioural Foundations of Learning

2.1 Bounded Rationality and Cognitive Constraints

Traditional economic theory assumes learners act rationally. Behavioural research shows otherwise: students frequently misjudge workloads, underestimate deadlines, and overestimate their ability to multitask (Ariely, 2008). Online learning amplifies these issues due to distraction-rich environments and lack of external structure.

2.2 Present Bias and Self-Regulation

Students tend to prefer immediately rewarding behaviour (relaxation, entertainment) over effort-intensive tasks such as studying this is classic present bias (O'Donoghue & Rabin, 1999). Online learning environments, especially, make procrastination easier.

2.3 Social Preferences and Peer Influence

Social connectedness heavily influences academic motivation. When peer interaction decreases common in online mode, motivation and persistence also decline (Ryan & Deci, 2000).

2.4 Cognitive Load Theory

High screen time, multitasking, and fragmented digital resources impose cognitive load, impairing retention and comprehension (Sweller, 2011). Hybrid and offline settings typically distribute cognitive effort more effectively.

3. Self-Determination Theory as a Behavioural Lens

Self-Determination Theory (Deci & Ryan, 1985) identifies three psychological needs:

- **Autonomy:** freedom to choose and organise learning
- **Competence:** feeling capable and confident
- **Relatedness:** meaningful social interaction

Different modes of education satisfy these needs in varying degrees:

Mode	Autonomy	Competence	Relatedness
Online	High	Moderate	Low
Offline	Medium	High	High
Hybrid	Moderate–High	High	Moderate–High

This behavioural asymmetry explains differential student satisfaction across modes.

4. Behavioural Characteristics of Education Modes in India

4.1 Online Learning

Online learning offers flexibility and access, particularly for urban and technologically empowered students. Behaviourally, however, it presents several obstacles:

- **Weak social bonds** diminish engagement
- **Higher cognitive load** due to continuous screen exposure
- **Self-regulation challenges** increase the likelihood of procrastination
- **Digital divide** restricts equitable access

Studies show online learning works best for students with strong intrinsic motivation and stable digital infrastructure (Means et al., 2010).

4.2 Offline (Face-to-Face) Learning

Offline learning remains behaviourally robust due to its structured nature and rich social environment. Key advantages include:

- Greater accountability
- Enhanced attention and classroom discipline
- Emotional support through peer and teacher interaction

However, rigid scheduling and time cost of commuting limit autonomy.

4.3 Hybrid (Blended) Learning

Hybrid learning emerges as a middle path. It strengthens autonomy through flexible components while preserving relatedness through periodic classroom interaction. International evidence suggests hybrid models yield higher satisfaction and learning depth when implemented effectively (Garrison & Kanuka, 2004).

5. Systemic Challenges in India's Educational Transition

5.1 Digital and Social Inequalities

India's digital divide spanning device ownership, internet reliability, and digital literacy—creates uneven opportunities for online and hybrid learning. Students from lower socio-economic backgrounds experience significant behavioural stress and reduced autonomy (UNESCO, 2020).

5.2 Institutional Capacity and Pedagogical Readiness

Many institutions face constraints related to:

- Lack of trained faculty in digital pedagogy
- Limited smart classroom infrastructure
- Poor coordination of credit mobility and FYUP structure

These institutional deficits create uncertainty and cognitive confusion for students.

5.3 Behavioural and Mental Health Concerns

The transition to technology-based learning has been associated with:

- Increased anxiety
- Social isolation
- Attention fatigue
- Reduced academic confidence (Sahu, 2020)

Such behavioural responses reduce effective learning regardless of mode.

5.4 Economic Burden and Opportunity Costs

Extended degree duration under FYUP, device purchases, data usage, travel, and additional course materials impose financial burdens that disproportionately affect low-income students. Behavioural literature shows that financial stress reduces cognitive bandwidth and academic productivity (Mani et al., 2013).

6. Future Scope Under NEP 2020

NEP 2020 envisions a flexible, multidisciplinary, and technology-enabled education system. To fulfil this vision, behavioural insights must inform policy and institutional practices.

6.1 Designing Behaviourally Sensitive Curricula

- Reduce excessive fragmentation of assessments

- Introduce nudges for time management and engagement
- Offer structured peer mentoring for social cohesion
- Minimise cognitive overload through balanced workload distribution

6.2 Enhancing Hybrid Learning Ecosystems

Hybrid learning must be institutionalised rather than improvised. This includes:

- Clear weekly structure combining online flexibility and offline depth
- Digital repositories accessible to all students
- Training for teachers in blended pedagogy

6.3 Reducing Digital Inequality

Equity-enhancing measures include:

- Subsidised devices and data plans
- Community digital learning spaces
- University-level digital support programs

6.4 Strengthening Student Well-Being Systems

Institutions should invest in:

- Counselling services
- Stress-management workshops
- Academic skill support programs

7. Conceptual Behavioural Model of Student Utility

This paper proposes a theoretical model capturing student experience across modes:

$$U_i = \alpha A_i + \beta M_i + \gamma R_i - \delta K_i$$

Where:

A = Autonomy
M = Competence (Mastery)
R = Relatedness
K = Cognitive Cost

This model suggests:

Online mode: high A, moderate M, low R, high K
Offline mode: medium A, high M, high R, low K
Hybrid mode: balanced A, M, R with moderated K

Thus, hybrid learning maximises net behavioural utility.

8. Conclusion

India's educational transition cannot be evaluated simply by comparing academic outcomes across modes. A behavioural approach reveals that learning is shaped by psychological needs, cognitive constraints, economic stress, and social context. NEP 2020 offers a strong foundation for designing flexible and inclusive learning pathways, but its success depends on addressing underlying behavioural and infrastructural challenges. Hybrid learning, when supported by thoughtful policy and institutional readiness, holds the greatest potential to meet diverse student needs in India's higher education landscape.

References

1. Ariely, D. (2008). Predictably Irrational: The Hidden Forces That Shape Our Decisions. HarperCollins.
2. Deci, E. L., & Ryan, R. M. (1985). Intrinsic Motivation and Self-Determination in Human Behavior. Plenum.
3. Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. The Internet and Higher Education, 7(2), 95–105.
4. Kahneman, D. (2011). Thinking, Fast and Slow. Farrar, Straus and Giroux.
5. Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. Science, 341(6149), 976–980.
6. Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). Evaluation of evidence-based practices in online learning: A meta-analysis. U.S. Department of Education.
7. O'Donoghue, T., & Rabin, M. (1999). Doing it now or later. American Economic Review, 89(1), 103–124.
8. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation. American Psychologist, 55(1), 68–78.
9. Sahu, P. (2020). Closure of universities due to COVID-19: Impact on education and mental health. Journal of Education and Health Promotion, 9, 1–3.
10. Sweller, J. (2011). Cognitive load theory. Psychology of Learning and Motivation, 55, 37–76.
11. UNESCO. (2020). Education: From disruption to recovery. UNESCO Publishing.