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From the Desk of the Chief Editor

Dear Readers,

It gives me immense pleasure to present the January–March 2026 issue of *Omniscient*. The diversity of studies included in this edition reflects the changing priorities of contemporary research and the growing willingness of scholars to engage with questions that are both academically significant and socially meaningful.

The papers featured in this issue explore a wide range of themes including language and cultural identity, experiential pedagogy, academic stress, cybercrime, women's participation in the workforce, curriculum implementation, and the growing influence of Artificial Intelligence in educational and social contexts. Though varied in subject matter, these contributions share a common concern for understanding the rapidly evolving realities of society and education.

One encouraging trend visible across recent scholarly work is the increasing movement towards interdisciplinary inquiry. Researchers are no longer limiting themselves to isolated disciplinary boundaries; instead, they are attempting to connect classroom practices with technology, social structures with lived experiences, and policy discussions with ground realities. Such efforts strengthen the relevance of research and help academic work remain connected to contemporary concerns.

At the same time, meaningful research requires patience, critical reflection, and methodological seriousness. The purpose of academic publication should not merely be the accumulation of papers, but the contribution of thoughtful and credible knowledge that can inform dialogue, practice, and future inquiry. As a journal, *Omniscient* remains committed to encouraging scholarship grounded in originality, ethical integrity, analytical clarity, and academic rigor.

I extend my sincere appreciation to all authors, reviewers, editorial members, and readers whose continued trust and engagement make this academic endeavor possible. Their contributions collectively help nurture a scholarly environment built upon curiosity, responsibility, and constructive exchange of ideas.

I hope this issue stimulates reflection, encourages further research, and contributes meaningfully to ongoing academic conversations.

(Prof. K. P. Singh)

Vice Chancellor

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Linguistic Diversity and Minority Language Policies in the Indian Subcontinent

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ABSTRACT

The aim of this article is to analyze and compare different forms of multilingualism in the Indian Subcontinent by examining how and to what extent linguistic minorities have been recognized in postcolonial contexts. It analyzes the ways in which language policies contribute, on the one hand, to building national identity while, on the other hand, they represent tools for inclusion or exclusion. The study focuses on four historical and institutional contexts across different regions of the studied area: the Bengali language movement, the Tamil movement in India, the Punjabi linguistic context in Pakistan, and the Sri Lankan multilingualism. The findings underline that, despite formal recognition of multilingualism, institutional policies tend to privilege a single dominant language. Power asymmetry between dominant and minority linguistic groups and a strategic use of language in nation-building processes emerge, in different forms, in each of the four cases. The study highlights how language plays a crucial role in the process of shaping national identity in newly formed states and suggests the importance of recognizing linguistic diversity in order to prevent marginalization and internal conflicts. Lastly, the policy implications section recommends the promotion of linguistic mutual understanding and tolerance through, among others, the integration of technology and education, cultural promotion and exchange. In this context, the use of non-native English forms as a potential transitional lingua franca can facilitate communication while supporting linguistic integration.

Keywords: Minority Languages, Language Policy, Indian Subcontinent, National Identity, Linguistic Diversity.

INTRODUCTION

The Indian Subcontinent has historically been characterized by a plurality of religions, ethnicities and languages. Language, in particular, has played a crucial role in shaping collective identity and policies across the region. Linguistic diversity and the emergence of language movements have often been crucial factors in processes of national identity formation. Rather than being a mere tool that allows communication, language has mostly represented a marker of belonging which has shaped inclusions, exclusions and power. This paper examines how language policies can play the role of both tools for inclusion and mechanisms of domination and how, in some cases, language movements have shaped national identity formation across the Indian Subcontinent.

RESEARCH QUESTIONS

This article addresses the following research questions:

1. How do language policies in the Indian Subcontinent shape national identity formation?
2. To what extent do state language policies contribute to the inclusion or marginalization of linguistic minorities?
3. What are the recurrent patterns in language policies across the investigated cases?

RESEARCH METHOD

The study adopts a qualitative comparative approach to explore four experiences of linguistic diversity in the Indian Subcontinent. For this study, the cases are examined through national language policies, legal frameworks, and relevant literature in history and sociolinguistics. The texts are analyzed through three analytical dimensions: the degree of institutionalization of the dominant language as a tool for state-building; the socio-economic marginalization of non-native speakers; and the role of popular resistance as a direct response to symbolic violence. First, the Bengali language movement is examined, as it represents one of the most significant moments in the history of language recognition in the area. The Bengali case represents both an example of national identity formation and a call for inclusion and the rise of social and political justice. To allow a wider scope the study also adopts a comparative perspective to analyze the experiences of linguistic diversity in Punjab, Tamil Nadu, and Sri Lanka. Each case study is analyzed through the application of the three analytical dimensions, to ensure comparability across different socio-political contexts and to identify recurring patterns in language policy and minority recognition.

The mentioned cases were selected to allow a broader historical and geographical view of the Indian Subcontinent: they include eastern, northern, western, and southern regions with a common postcolonial setting.

The selected experiences allow a comparative analysis of how different paths have been taken to use language policies as a state-formation strategy: both from a historical and institutional point of view the study examines how language is strategic for decision-making processes, access to public services and justice.

LITERATURE REVIEW

The fact that the concept of the nation is artificial is widely accepted among scholars and the essentialist interpretations that see it as a natural or timeless entity have been strongly criticized. In this context Anderson (1983) proposed instead the idea of the nation as an “imagined community” built through shared symbols. As suggested by Bourdieu (1991), the concept of national identity is conceived as the result of historical processes and political negotiations that establish a sense of belonging over time. From this perspective, language plays a central role, as it represents the means through which national belonging is designed, shared and normalized publicly (Anderson, 1983). Consequently, by imposing a dominant linguistic standard, the state effectively pursues a monopoly over legitimate symbolic violence (Bourdieu, 1991), institutionalizing power asymmetries between linguistic groups. Furthermore, as Bourdieu (1991) indicates, the emergence of a “linguistic market” leads to a situation where certain languages function as “symbolic capital”. In this hierarchy, the state’s privileged language becomes the primary resource for social mobility, while other languages are progressively marginalized. This explains why some groups might adopt the dominant language as their primary spoken language, in order to secure their socio-economic position, whereas others, feeling excluded, might engage in resistance to protect their imagined community (Anderson, 1983). The idea of a shared language has therefore been used in many national pride-building projects, especially in postcolonial and newly constituted states (Schiffman, 1996). Once again, Bourdieu (1991) underlines how linguistic standardization has often been promoted as a means to strengthen cohesion across diverse populations within a nation, through common education systems and administrative practices. At the same time, such processes end up privileging one or more languages while leaving others behind.

Scholars have drawn attention to the fact that the institutional recognition of a common or

national language is closely tied to power relationships: language policies contribute to building and reinforcing linguistic hierarchies, where some languages acquire higher symbolic authority than others which are relegated to merely informal domains (Bourdieu, 1991). These hierarchies often go beyond linguistic and cultural matters, shaping the extent to which people can access political decisions, public services and social mobility. These dynamics often give rise to localized protests from linguistic minorities, such as the case of language movements.

Within this postcolonial context another important factor should be taken into account: the presence of colonial languages that frequently still play an important role from an administrative point of view, as well as serving as common means of communication, despite their connection with historical domination (Ngũgĩ wa Thiong'o, 1986). As Schiffman (1996) underlines, this tension between linguistic decolonization and linguistic governance remains unresolved in many multilingual states, particularly in the Indian Subcontinent, complicating the management of linguistic diversity.

While there are several examples of extended research on individual language movements and policies in South Asia, fewer studies connect language policy, minority recognition, and national identity formation across multiple postcolonial contexts in the Indian Subcontinent. For this reason this study seeks to fill this gap through a comparative analysis within the area.

CASE STUDY

1. The Bangladeshi Language Movement

The Bangladeshi language movement is probably the most prominent language movement in the region, having played a crucial role in facilitating the independence of Bangladesh from Pakistan in 1971. The movement emerged within a historical context of political and territorial division in the former Pakistan, which consisted of West Pakistan (now Pakistan) and the more isolated and exploited East Pakistan (now Bangladesh) (Jahan, 1972; Umar, 2006). The newborn State of Pakistan consisted of the two mentioned territories, which did not share a border but were united primarily by their common faith in Islam.

In addition to the economic exploitation and socio-political neglect of East Pakistan by West Pakistan's elite, the question of the national language rapidly became a critical issue. The political elite strongly promoted Urdu as the national language to emphasize its connection to Arabic and Persian, languages traditionally associated with Islam (Rahman, 1996). However, the majority of the population in both East and West Pakistan did not speak Urdu fluently. For the Bengali population in particular, this imposition was perceived as a new form of domination (Rahman, 1996), replacing one colonial hierarchy with another. This hegemonic project became increasingly evident following multiple public speeches by the prime minister advocating the institutionalization of Urdu as the sole national language, combined with several attempts to replace the Bengali script with the Arabic one. This strategy is an example of what Bourdieu (1991) identifies as the monopoly of legitimate symbolic violence. By delegitimizing the native script, the West Pakistani elite was not merely simplifying administration but also attempting to devalue the Bengalis' alphabet and identity, by imposing a single legitimate linguistic order and the dominance of Urdu. From a theoretical perspective, this forced the Bengali population into a state of cultural subordination, where their primary tool of social and intellectual expression was pictured as incompatible with the new national identity.

Meanwhile, intellectuals and students in Dhaka emphasized the necessity of granting Bengali equal status with Urdu in civil, legal, and social spheres (Umar, 2006). United by the struggle for political recognition, which was seen as essential to the socioeconomic and political

structure of Pakistan, they mobilized under the language movement to preserve and protect the Bengali language and culture against the dominance of a language that represented only a small, powerful elite rather than the majority of ordinary citizens.

The central government, however, strongly repressed East Pakistan's claims for autonomy by forbidding public demonstrations. Resiliently taking the risk, students in Dhaka continued to gather and protest, raising their voices against the central policies that led to the linguistic oppression of Bengali. On 21 February 1952 during an unauthorized but peaceful manifestation, the police opened fire and brutally killed demonstrators and students. The Bengali population, devastated by these abuses and atrocities committed against the defenseless civilian population, decided to commemorate these "martyrs for the language" as key figures in the Bangladeshi independence process, who are still celebrated today (Islam, 1978). In this sense, the language movement exemplifies a dimension of popular resistance where linguistic identity became the primary catalyst for national self-determination against institutional exclusion.

Over time, the political party Awami League, composed, among others, of members of the former language and student movements, progressively gained strength and visibility within the Bengali population. Initially, the Awami League, in addition to fighting for equal recognition of Bengali and Urdu, called for equal social and economic conditions between East and West Pakistan. As Jahan (1972) highlights, as these demands were systematically ignored by the central government, they gradually evolved into calls for greater autonomy. The turning point occurred with the Awami League's election victory in 1970. Faced with the West Pakistani elite's reluctance to hand over power to the newly elected representatives, demands for autonomy transformed into demands for independence. The situation escalated between 1970 and 1971 when, following a bloody war, Bangladesh achieved independence. In this sense, the Bengali movement is a paradigmatic example of popular resistance against symbolic violence within an imagined community: the reclamation of linguistic rights became the primary tool for challenging institutionalized power asymmetries.

II. The Tamil Movement

Tamil Nadu, the southern region of India, which is home to a majority of Tamil native speakers has historically witnessed the rise of the Tamil language movement (Ramaswamy, 1997). This movement originated in the 1960s, when Tamil speakers demanded the adoption of a two-language policy as an alternative to the three-language solution proposed by the Central Indian Government (King, 2001).

After independence, the linguistic framework envisioned by the Constituent Assembly shaped India with Hindi as the official language of the Union, English as a transitional tool for administration and global communication, and regional languages to preserve local culture and heritage. This vision is reflected in Articles 343 to 347 of the Constitution, where each State is granted the authority to adopt one or more languages for official purposes. These prescriptions establish a constitutional framework that recognizes India's linguistic plurality while allowing for differentiated language policies at the state level.

Nevertheless, based on this constitutional architecture, the implementation of the three-language policy was carried out by the Education Commission (1964-66) and National Policy on Education (1968), with the claimed aim of balancing national integration with the preservation of regional and linguistic diversity by promoting the study of a regional language, Hindi, and English (King, 2001). This policy framework exemplifies the institutionalization of

the dominant language: an attempt to standardize linguistic practices in the name of national integration. Nevertheless, in Tamil Nadu this process was not perceived as integration, but as a form of linguistic hegemony. In this context Anderson's (1983) imagined communities can be recognized: the policy is an attempt by the central Indian state to construct a unified national identity through a process of "official nationalism". For Tamil speakers, their language was already the main element of a distinct imagined community; from this perspective, the resistance to Hindi is a competing process of imagined community-building at the regional level. The resistance to Hindi, from this perspective, results as a defense of Tamil's collective identity against the threat of a uniform linguistic standard imposed by the central state.

The three-language solution has been and remains, criticized by Tamil speakers, who perceive it as an imposition by a dominant Hindi speaking elite over the Tamil-speaking population (Bourdieu, 1991; Ramaswamy, 1997). Tamil non-Hindi-speakers feared that they would not have equal access to employment and educational opportunities (King, 2001) compared to Hindi speakers. This concern is based on the perception that academic evaluation and competitive examinations conducted in Hindi would disadvantage non-native speakers, who might struggle to perform at the same level as native Hindi speakers despite comparable abilities.

Since 1965, the Tamil movement has advocated for a two-language solution, with English used as the common language of the Union and Tamil, in the case of Tamil Nadu, as the official language of the federal state (Biswas, 2025). The decision not to include Hindi among the languages taught is viewed as a more respectful approach, preserving Tamil cultural identity and heritage, reflecting the principle that "unity must be built by respecting diversity and not by forcing uniformity" (Biswas, 2025).

Although the Tamil movement originated in the 1960s, the issue remains relevant today. Since 1968, and even recently in 2020, the National Policy on Education (NPE) has strongly recommended the three-language formula. However, education is a concurrent subject shared between the central government and federal states, as stated by the 42nd Constitutional Amendment (1976), which includes it in the Concurrent List. For this reason the national government cannot impose this solution on Tamil Nadu. As a result of the political pressure of the language movement, Tamil Nadu adopted the two-language policy, recently reaffirmed in 2025 in the State Education Policy.

Nevertheless, over time, the central government has increasingly promoted the use of Hindi within central institutions and national examinations (King, 2001). This expansion has contributed to structurally unequal conditions, as Tamil speakers are often required to operate in a non-native language, while Hindi native speakers benefit from a comparative advantage in access to public employment, institutional, and political participation by speaking their mother tongue. The continued prioritization of Tamil in education reflects the strong impact of the Tamil Language Movement within the State. Promoting Tamil enables citizens of Tamil Nadu to sustain their cultural and linguistic heritage while participating in India's multilingual society. At the same time, some argue that disadvantaged children may face reduced opportunities by not learning an additional language, which could exacerbate social inequalities within the state. Additionally, some Hindi-speaking minorities in Tamil Nadu may be affected by the two-language policy, as they may not have access to instruction in their native language. From this perspective, Tamil Nadu's solution, while promoting linguistic equality for the Tamil majority, could inadvertently create inequities for Hindi-speaking minorities. From a comparative perspective, as in the case of Urdu in Bangladesh, this case reflects the

institutionalization of the dominant language, as well as the socio-economic marginalization of non-Hindi speakers. However, unlike East Pakistan, in Tamil Nadu forms of resistance emerge at a regional level rather than through direct confrontation with the central state.

III. The Punjabi language across India and Pakistan

According to some authors such as Khokhlova (2009), in the case of Punjab the language has not represented a primary tool for building a strong collective identity within the community. Indeed, religion, rather than language, has constituted the basis for the construction of self-identity in the Punjab area. The territory has historically been inhabited by various religious groups such as Sikhs (predominantly Punjabi speakers), Muslims and Hindus. Although between the sixteenth and eighteenth centuries Punjab represented an independent state under Sikh rule, during that time too, Punjabi was not the state language, as Persian was mostly used (Talbot, 1996). Once British colonization took place, the geopolitical dynamics of the northern region of the Indian Subcontinent changed significantly. According to the same author, the reason for privileging religion over language lies in a colonial tendency of the British protectorate to establish alliances and build stronger ties with local communities based on religion rather than language or ethnic affiliation.

As for Punjab, although the Punjabi language had a wide literary heritage and a strong cultural tradition, the religious picture was fragmented into various religious communities. Subsequently, during British rule of the Indian Subcontinent the British colonizers strengthened ties with different religious communities at different moments, causing religion to become a primary means of cultural identification over language.

It is in this context that religious reform movements spread with the aim of defending Sikhism from the potential threat of Christianity and Hindu absorption, as many Sikhs had converted over time to these religions. These movements were, thus, more oriented toward emphasizing religious bonds among the people of Punjab rather than linguistic ones. Even in 1947, when the territory of former India was partitioned into India and Pakistan, Punjabi identity became strongly and politically tied to Sikh religious belief. Although, especially in Pakistan, a stronger status as a national language was accorded to Urdu, no strong, widespread, language movement emerged to support Punjabi recognition as a national language (Shackle, 1977). Unlike India, where linguistic diversity is constitutionally recognized and ideally preserved through a federal implementation structure, Pakistan adopted a more centralized language policy, directly marginalizing regional linguistic identities. This contrast highlights how different approaches to language policy reflect broader state-building strategies and power configurations. In this case in front of the institutionalization of Urdu this policy was not contested by the Punjabi elite, as they prioritized religious and political stability over linguistic recognition. According to Khokhlova's study, language movements generally arise among economically oppressed communities that experience social and economic marginalization. In the case of Punjab, language movements did not play a significant role in building Punjabi identity, considering that these communities have historically been granted a relatively high social status, integrating wealthy white-collar groups in both Pakistani and Indian society (Khokhlova, 2009). Contemporary social structures in Punjab are not strongly based on language: although, for example, Punjabi is available in some master's programs, most students from middle or higher social backgrounds prefer to pursue their studies either in Hindi or, more often, in English, as it is perceived as a language that can provide greater international opportunities.

On the other hand, Hussain's study (2020) defines Punjabi in Pakistan as a marginalized language, as a result of socio-economic discrepancies affecting Punjabi speakers in comparison

with Urdu or English speakers, underlining how dynamics of internalization of linguistic hierarchy can work. According to this author, although Punjabi is the most spoken language in Pakistan, it receives little institutional support for its promotion and diffusion, nor is it widely used in official institutions and public administrations, mostly due to the social and economic marginalization of its speakers

These two interpretations of Punjabi as either the language of a religious and socio-economically privileged elite or as a language associated with a rural and marginalized society, may appear contradictory. Nevertheless, a possible unitary vision of these two perspectives can be identified by considering the Punjabi dominant group as being primarily focused on preserving religious identity rather than linguistic rights, while lower Punjabi-speaking classes lack bargaining power to collectively advocate for language recognition. This may be one of the reasons why, unlike the Tamil and Bangladeshi cases, the Punjabi language movement has not emerged with the same intensity or visibility and continues to play a more marginal role in linguistic politics. On the contrary, the relative absence of a strong Punjabi language movement, in contrast to the Bengali experience, could also be considered an exemplification of the “linguistic market” concept suggested by Bourdieu (1991). Since the Punjabi elite already held a dominant position within the Pakistani state and military, they did not perceive the promotion of Urdu as a threat; instead, they adopted Urdu as a strategic symbolic element to maintain national cohesion. In this sense the Punjabi case shows a unique situation among the studied ones: the socio-economic marginalization of rural speakers did not translate into a popular resistance because the dominant classes utilized Urdu as strategic symbolic capital. In this case, Anderson’s (1983) imagined community was built primarily on religious unity, a more effective marker of belonging than the linguistic one for the Punjabi population. In conclusion, this case shows how the institutionalization of a dominant language, combined with other socio-economic dynamics, can prevent the emergence of popular resistance and alter the dynamics of language-based political mobilization.

4) Sri Lanka’s struggles to achieve actual bilingualism

Linguistic diversity has characterized Sri Lanka since well before independence. Political debate over language issues began during the colonial period and continued until it was formally addressed through amendments to the Constitution (Perera, 2015; Spittel, 1970). The constitutional amendment led to equal recognition of both Sinhala and Tamil as official state languages, along with the right of citizens to use either language in public and private contexts without discrimination.

As underlined by Mukherjee and Bernaisch (2020), Sri Lanka is certainly a country characterized by a multitude of linguistic differences: English, a colonial legacy, is still widely used in some contexts as a *lingua franca* despite being heavily criticized as an element that continues to link the country to its colonial past of dependency on British influence.

According to the Minority Rights Group International Report (2024), especially coinciding with the geographical division between the north and south of the country, a linguistic division can be noted between the southern regions where Sinhala is predominantly spoken and those in the north where Tamil is widely spoken (by 28.5% of the total population). This state of affairs reflects not only linguistic differences but also, and above all, an ethnic and political division that has repeatedly been at the center of bloody battles and civil wars within the country. While the Sinhala represent an Indo-Aryan ethno-linguistic group that is predominantly Buddhist, Sri Lankan Tamils, are mainly Hindu, along with a distinct Muslim community that also uses Tamil as a primary language.

The British colonial rule and the creation of the Sri Lankan state have always been characterized by difficult relations between the various communities present in the country. As mentioned, these have often been characterized by clashes and mutual discrimination, with progressive pressure for the Sinhalization of the state, both linguistically and ethnically. These tensions have led, over the years, to the escalation of extremist positions and demands for independence and territorial divisions (Perera, 2015).

Some examples of Sinhalization can be seen during the early years of Sri Lanka's independence: Sinhalese political actors pressured Parliament to adopt the "Sinhala Only Bill", which declared Sinhala the only official language of Sri Lanka. The political propaganda for a Sinhala Only Bill represents a practice of legitimate symbolic violence aiming to push the linguistic identity of the Tamil minority out of the linguistic landscape of public affairs management. Political representatives and the Tamil-speaking population strenuously opposed this act through protests and motions until in 1987 Tamil was officially included as an official language alongside Sinhala, by the 13th Amendment to the Constitution, establishing a legal framework aimed at linguistic parity.

Despite the constitutional recognition of Tamil, in real life differences and disparities in treatment between Tamil and Sinhala speakers still remain, as well as greater difficulties for Tamil speakers to access public services and jobs and to interact with the authorities in their language (Manogaran & Pfaffenberger, 1994).

Currently, according to Perera's study (2015), the number of Tamil-speaking public officials is very low, even in the northern and northeastern areas where Tamil is most commonly used. This leads to unequal treatment among citizens, inability to access justice and public services, and higher costs that Tamil speakers must directly cover for simultaneous translation services and transcription of documents into Sinhala. Very often, Tamil speakers are forced to contact and directly pay an official translator or, at best, rely on public officials who generally have very little knowledge of the language.

Despite the fact that the government has provided funds to implement more inclusive language policies; issued guidelines, and circulars to promote the use of Tamil in public institutions, Sinhala continues to be used as the exclusive language in almost all cases. Although Tamil and English courses have been organized for both public officials and citizens, the successful results have been very limited. On top of that, public officials were often not genuinely interested in learning the language, but rather in obtaining work permits or compensation (Perera, 2015). This gap between legal recognition and daily life in administrative practice is an example of Bourdieu's (1991) linguistic hierarchy, which highlights the socio-economic marginalization of Tamil speakers, despite formal institutional recognition. Although Tamil is constitutionally an official language, the state is not effectively implementing it in public services, reinforcing, through language, a power asymmetry. This situation exemplifies a hierarchical linguistic order, in which formal equality does not translate into equal access to symbolic and institutional resources. In this context, the linguistic barrier is not merely a technical issue, but a form of symbolic violence and systemic exclusion that prevents Tamil speakers from exercising their rights, maintaining their status of cultural and political subordination. Both in the case of India and Sri Lanka, these countries explicitly recognize languages other than the majority ones, but then the actual implementation of policies to allow their daily use is very limited if not even opposed by elites and political-economic interests. Moreover, in contrast to Bangladesh, Sri Lanka and the Punjabi case in Pakistan show how, in some contexts, language policies, far from being a revolutionary and liberating force, can

intensify social divisions when aligned with majoritarian interests and the dynamics of the linguistic market. Sri Lanka's case simultaneously reflects the institutionalization of a dominant language and the socio-economic marginalization of minority speakers, while showing how limited forms of resistance can result in an environment of structural linguistic inequality.

Following the analysis of the four cases, it is possible to evince the political and sociological connection between language and the process of shaping of national identity. The four cases highlight different ways of using the national language and recognizing minority languages for political purposes, from another point of view, language often also constitutes a way to resist centralization tendencies, while in other contexts, the linguistic element leaves room for other identity markers such as religion.

Overall, the three analytical dimensions of institutionalization, marginalization, and resistance interact differently due to varying socio-historical contexts and factors, shaping distinct dynamics in a multilingual national landscape.

FINDINGS

Diversity is certainly one of the defining characteristics of the Indian Subcontinent. This diversity is reflected at socioeconomic, linguistic, and political levels. The existence of multilingualism therefore constitutes one of the subcontinent's major sociopolitical challenges, which has emerged repeatedly and has been managed differently during the postcolonial period by the various states analyzed, according to their characteristics and social context. These patterns can be interpreted through Bourdieu's concept of linguistic hierarchy and market and Anderson's notion of imagined communities, which help explain how language policies evolve and how they can be used both as instruments of symbolic power and as tools for constructing collective identity.

Following the comparative analysis of the four cases, it can be seen that the relationship between language and national identity is always present, even if it varies from case to case. Overall, the findings suggest that language policies in postcolonial multilingual states of the subcontinent are not mere tools of communication, but play a crucial role in shaping inclusion, exclusion, and the boundaries of national identity. For instance, while in Bangladesh language was a factor of resistance and unification, in Sri Lanka and Pakistan it often reinforced exclusionary dynamics and power asymmetries. Further, it is emphasized how the linguistic factor can integrate and interact with other dynamics, as in the case of the Punjabi population and the religious element, relegating language to a secondary role as an identity marker. Furthermore, with regard to the case of the explicit recognition of minority languages, in all cases it is clear that, despite legislative pronouncements, the provisions are often not actually implemented.

In all the analyzed cases of newly independent states characterized by linguistic plurality, the response of central governments, regardless of whether multilingualism was formally recognized, has de facto consistently prioritized a single language, with the stated aim of strengthening national identity and fostering a sense of belonging among the population.

However, following an in-depth analysis of the socio-political contexts and the resulting analysis of language policies, what emerges is an ambivalent situation in which, on the one hand, privileging one language over others can be a vehicle for increasing a sense of belonging, while on the other hand, it ends up marginalizing speakers of other languages within the country.

This is particularly evident in the case of Pakistan and the use of Urdu as the national language, privileged over Punjabi.

In the case of Tamil Nadu, this context highlights potential difficulties in implementing a two-

language policy, but also highlights its potential importance for the state's residents from various perspectives. On the one hand, the two-language policy is certainly essential for preserving the identity, history, and culture of Tamil speakers, representing an act of resistance against the hegemony of a centrally established dominant language. On the other hand, however, the inability to speak Hindi could constitute a disadvantage, especially for the poorest social classes who might be unable to access opportunities outside of Tamil Nadu: in fact, Hindi continues to be the most widely spoken language, even compared to English. At the same time, the exclusion of Hindi from Tamil Nadu's two-language policy could result in a violation of the linguistic rights of Hindi-speaking minorities in the state.

This shows how linguistic minorities often find themselves forced to manage tensions between two distinct tendencies: on the one hand, the tendency toward assimilation, whereby the system makes learning the national (or dominant) language a necessary priority for access to education, employment, and social mobility; on the other hand, the system's tendency to marginalize linguistic minorities, thus creating a sense of exclusion that, consequently, increases pressure for autonomy or independence.

A striking example is Bangladesh, where social, economic, and political tensions, characterized, among other things, by linguistic exclusion, degenerated into bloody protests and even a war of independence. This case highlights the potential consequences of neglecting linguistic justice to blindly pursue national cohesion.

Adopting a postcolonial perspective, there is a further controversial reflection that needs to be developed regarding the role of English. While the dilemma of distancing oneself from the symbolic language of colonialism or using it as a *lingua franca* is highlighted, at the same time the question arises of how to ensure that the new national language do not become a new instrument of domination and supremacy of one population over the other.

As mentioned, the English language plays an ambivalent role in the Indian Subcontinent: it can be considered in its role as a *lingua franca* that allows for mutual intelligibility between the various populations of the region as well as at the international level. However,

continuing to use and recognize as an official language what represents centuries of colonial domination could certainly contribute to symbolically perpetuating an idea of inequality and hierarchy represented by an external influence. As Poudel (2022) affirms, “the English language was instrumental for linguistic and cultural assimilation of these people speaking diverse languages against the linguistic and cultural heterogeneity of the region”. Overall, the findings highlight that the governance of linguistic diversity in postcolonial contexts remains a deeply political process, where the recognition and implementation of language policies mediate access to power and rights.

RECOMMENDATIONS AND POLICY IMPLICATIONS

It is important to start from the assumption that, despite sharing many common historical and cultural elements, the Indian Subcontinent is generally characterized by profound linguistic and legal diversity. It is therefore difficult to present a single solution that fits all the analyzed cases. However, precisely because of the diverse historical and cultural characteristics of the subcontinent, it is important to promote education and mutual cultural awareness so that various populations can come into contact with one another, broadening their perspectives on the value and uniqueness of the various languages and the traditions they embody. This will allow for greater recognition, acceptance, and respect for others and their distinctive characteristics, primarily their language. Greater institutional promotion facilitating better coexistence between

the various linguistic groups is crucial to achieving better access to public life in one's own language and reducing tensions at the ethno-linguistic level.

Considering all four cases analyzed, the Sri Lankan case, where the equality of Sinhala and Tamil has been recognized at a constitutional level, is certainly an excellent attempt at the legal recognition of fundamental human rights despite the fact that significant critical issues remain with regard to the effectiveness of the enunciated right. On the one hand, there is the difficulty, in practice, of implementing these policies; on the other hand, there is the complex question of the role of English. English represents a burdensome colonial legacy and, at the same time, a potential tool for social cohesion and mutual recognition, as well as greater dynamism and international trade opportunities.

Alongside these general questions, which apply to all four scenarios, there are a number of other specific issues, closely linked to the social context of each of the countries studied. In the case of Punjabi and Tamil speakers, promoting linguistic diversity should be based on a holistic approach that includes solutions at institutional, technological, and cultural level. With regard to this last mentioned level, for example, it would be important to promote minority art and literature across the country through festivals and events that allow all citizens to become familiar with minority languages, thus strengthening a sense of recognition and appreciation, and fostering greater social cohesion among the various populations speaking different languages. Alongside the cultural level, there is also the educational one: promoting diverse cultures and languages in schools and ensuring access to quality education, including in minority languages, can be crucial. To achieve this goal, in addition to curricular teaching, the use of multimedia platforms for language learning can be useful: support for digital and technological resources, such as online dictionaries and educational applications provides practical tools for learning and preserving minority languages, particularly in rural or underserved areas.

As for school textbooks, these should ensure equal representation of all cultures and languages present, as a more inclusive solution also in the classroom. Furthermore in both academic and professional settings, interregional exchanges could be funded for both students and public servants to deepen interaction between different languages and cultures, enhance linguistic skills, or introduce them to minority languages. An example of this type of activity could be the "Erasmus+" program in Europe, which every year allows students and workers to undertake periods of study, work, and internships in other European countries to experience their culture and learn their language.

With particular reference to public officials, especially those working in areas where minority languages are the most widely spoken, it is fundamental to ensure linguistic training that allows them to interact and operate fluently in the minority language. Since the role of public officials is strategic in ensuring that all citizens have equal access to public services and justice, it is important that their linguistic preparation is strong and verifiable, not merely a formal recognition. To promote genuine engagement in learning minority languages, financial incentives and job promotions can certainly be helpful, but these rewards should be strictly linked to the achievement of verifiable language proficiency outcomes, assessed through transparent evaluation.

Moreover, it is essential that language proficiency does not remain a mere formal certification, but be demonstrated through actual use in daily life, which may include the obligation for public servants to interact with users in the minority language when requested, contribute to the translation of public documents, and make administrative acts available also in the acquired

languages. Finally, it could be useful to strengthen the presence and use of minority languages in the media and in official contexts and discourses, to ensure a greater sense of belonging and inclusion on the part of minorities as well. Implementing these solutions could strengthen institutional credibility, access to public services, and a greater degree of effective rights for minority language communities, preventing their recognition from being a mere theoretical statement. These types of policies would also help strengthen social cohesion and tolerance, and avoid internal tensions that could otherwise lead to violent escalations.

The last issue to be addressed is the one concerning English: this could constitute a temporary solution as a *lingua franca* in a transition period while working towards achieving the goal of real mutual recognition and respect within the framework of a truly multilingual state, respectful of all the languages spoken on the territory. Considering Poudel's studies (2022), an element to take into account in this context is the "non-native varieties" of English, born from the interaction between English and local languages (such as Indian English). "These varieties differ from native English in phonological, morphological, and syntactic patterns and link multicultural communities across diverse linguistic and cultural spaces" and give life to real forms of expression which, far from being a simple use of the colonial language, reflect and represent local culture and traditions, transforming the colonizer's language into something of its own, original and authentically local. As underlined by Mukherjee (2020) "Contemporary Indian English is profiled as a semi-autonomous variety dynamically negotiating the need for local identity construction of its speakers with that for global intelligibility." These non-native varieties of English, having acquired their own original elements: idioms, concepts, historical and cultural references, could therefore be a temporary, contra-hegemonic and decolonial response to a broader recognition of linguistic diversity in the various territories analyzed.

Based on Poudel's study (2022) non-native forms of English could be implemented as a temporary *lingua franca*, a neutral ground, both in classrooms and in institutions to allow mutual communication between speakers of different languages, avoiding discrimination and guaranteeing access to public services and underlining the elements that unite the various populations of the territory, as a common front against colonial hegemony.

LIMITATIONS

Although this study offers important insights that can contribute to an overview of the state of relations between linguistic groups in the Indian Subcontinent, it is also necessary to recognize potential limitations and future research paths. First, it would be useful to integrate primary data, both qualitative (such as semi-structured interviews and localized focus groups) and quantitative, including updated statistics on the number of speakers of various languages, while also evaluating the historical evolution of such data. Furthermore, the comparative approach, while certainly useful in this case, may not be the only possible or most appropriate one, as some peculiarities specific to each social and linguistic group may not be captured without a more hermeneutic analysis focused exclusively on a single community. A micro-level perspective could reveal socio-cultural nuances that a macro-comparative study might inevitably overlook. This element should be taken into account, especially considering that the number of cases chosen as examples for comparative analysis allows only a partial overview that does not represent the entire linguistic situation in the subcontinent, which is characterized by considerable linguistic diversity and a very large number of languages spoken throughout the territory.

Finally, it is worth mentioning the limitation regarding the language of the sources used, namely, sources available exclusively in English. It could prove crucial in subsequent studies

to also use sources directly in the languages of the linguistic groups analyzed, precisely in order to provide a first-hand perspective on the materials produced by the studied communities. These limitations suggest that in future research a mixed-method approach could be taken to conduct a more localized analysis, in order to further validate and detail the comparative findings presented in this study.

As previously mentioned, the sociocultural, linguistic, and historical diversity of the Indian Subcontinent makes it difficult to propose a single policy that applies to all cases. However, it is recommended that both government institutions and citizens take a step toward a genuine recognition and respect for linguistic minorities through education and culture, that are open to the discovery of others and their linguistic and cultural peculiarities.

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Teachers' Concerns about Adopting Experiential Pedagogy under NEP 2020: A CBAM-based Study

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ABSTRACT

In Indian education, NEP 2020 focuses on the integration of experiential pedagogy as a core component of curriculum reform. The success of any innovative pedagogy practice depends highly on the readiness and preparedness of teachers to understand it, internalize it, and implement it in their classrooms. The present study was conducted to measure teachers' stages of concern in the context of experiential pedagogy and also identify the dominant concerns of its adoption, which may either hinder or facilitate it. The Concern-Based Adoption Model (CBAM) was used as a guiding framework. The data was collected through a quantitative descriptive survey design from 55 secondary school teachers working in government and private institutions of Uttar Pradesh. Hall and Hall (2011) developed the Stages of Concern Questionnaire (SOCQ), which was linguistically adapted to suit the experiential pedagogy, while maintaining the original structure of seven concern stages: awareness, informational, personal, management, consequence, collaboration, and refocusing. Descriptive statistics were used for the data analysis. A distinct Early-Phase Concern Profile was revealed in the findings. The findings showed that teachers had moderate awareness, high informational, and high management concerns, indicating that they were interested in understanding experiential pedagogy, but at the same time, they felt unsure and anxious about how to implement it in their classrooms. A moderate level of personal concerns of teachers reflected their low self-confidence and mixed feelings about role adequacy. However, consequence and collaboration concerns were low, indicating teachers had not yet reoriented their focus towards student impact or teamwork. The refocusing stage was observed as the lowest concern, signifying minimal inclination toward innovation or pedagogical refinement beyond policy expectations. Comprehensively, Teachers were in the early phase of innovation adoption, reflected by the concern pattern under the CBAM. Though they were operationally constrained, but conceptually optimistic. Teachers understand the concept of experiential pedagogy, but they are struggling with its actual implementation in their real classrooms. So, Teachers are enthusiastic but inexperienced. The study concludes that to help teachers progress towards higher and impact-driven stages of concern and to realize NEP 2020's experiential learning vision in practice, they need focused orientations, continuous mentoring and resource support from institutions.

Keywords: CBAM; Experiential pedagogy; Innovation adoption; NEP 2020; Science education; Teachers' concerns and readiness.

INTRODUCTION

In Indian education, one of the highly ambitious reform initiatives is the New Education Policy 2020 (NEP 2020), which advocates for a major transformation from rote memorization to experiential and activity-based learning. It conceptualizes a system of holistic, integrated,

enjoyable, and engaging learning. Experience and hands-on-based learning prioritise more than rote and traditional learning (Government of India, 2020). For a long time, experiential learning has been known as a core aspect of meaningful learning, emphasizing learning via direct experiences, active participation, and reflection, not just rote and passive knowledge transmission. Firstly, John Dewey explored the concept of the experiential learning cycle, which was later formalised by Kolb in 1984. There are four stages included in the experiential learning cycle, i.e. concrete experience, reflective observation, abstract conceptualization, and active experimentation. It offers a comprehensive pedagogical framework for aligning theory with practice (Kolb & Kolb, 2008). Deeper conceptual understanding, learner autonomy, and critical thinking are promoted by this approach, which are crucial outcomes of 21st-century education (Beard & Wilson, 2018; Hake, 2019).

Through the lens of science education, experiential pedagogy facilitates in-depth conceptual understanding, critical thinking, and long-term learning. Although NEP 2020 vision also focused on learner-centred education, teachers play a significant role in implementing the policy's principles in classroom practice. According to Hall & Hall 2011 and George et al. 2006, the success of any pedagogical transition highly depends on how a teacher understands, views, and effectively incorporates changes into their classroom practices. Several related studies have shown that pedagogical innovations succeed or fail based on preparedness, beliefs, and perceived self-efficacy of the teacher (Trapani & Annunziato, 2021).

Evidence-based studies have consistently demonstrated that teachers often encounter structural and psychological difficulties when they are attempting to implement experiential learning-based instructions in their classrooms. Large class sizes, rigorous schedules, and resource constraints frequently hamper creative classroom experimentation (Apau, 2021; Mushi et al., 2025).

Additionally, teachers often express uncertainty regarding planning, evaluating, and managing experiential activities. They suggest that before expecting behavioural change, their professional issues must be understood systematically. In the Indian classroom context, the ongoing learning divide between policy expectations and classroom realities highlights the need to evaluate the readiness and concern patterns of the teachers.

THEORETICAL JUSTIFICATION

This present study is conceptually framed around the Concerns-Based Adoption Model (CBAM) developed by Hall and Hord (2011), which conceptualizes teacher adoption of innovation as a developmental process. CBAM identifies seven stages of concern- Awareness, Informational, Personal, Management, Consequence, Collaboration, and Refocusing, ranging from self- to impact-oriented focus. This model provides an empirically validated lens for evaluating how teachers perceive, respond to, and internalize educational innovations. These perceptions are quantified by the Stages of Concern Questionnaire (SoCQ), that provide opportunities to researchers to create "concern profiles". The concern profile provides information on which phase teachers are in the adoption process (George, Hall, and Stiegelbauer, 2006).

Previous applications of CBAM implementations have demonstrated efficacy in a variety of reforms, including instructional-design initiatives in the United States (Trapani & Annunziato, 2021), technology-enhanced learning in Europe (Ioannou, 2020), competency-based curricula in Asia (Zhao, 2024), and teacher professional-development programmes in Africa (Mushi et al., 2025). Prior multiple studies have documented that teachers' informational, personal, and management concerns are most dominant during early adoption, while higher-order concerns (consequence, collaboration, refocusing) become apparent only through adequate training and supportive infrastructure.

For designing focused professional-development interventions and training programmes, firstly, it is crucial to understand the concerns of teachers. If teachers remain at lower levels of concern, reforms risk being adopted superficially, as Olson et al. (2020) defined "doing without knowing." Mapping these concerns gives policymakers and teacher educators diagnostic insight into how to better connect training, mentoring, and resource allocation with teachers' actual needs.

Additionally, the comparison of Indian teachers' concern profiles with global evidence brings light on how different types of contextual variables like leadership, resources and cultural dynamics influence the pedagogical trajectories (Apau, 2021; Zhao, 2024; Mushi et al., 2025).

RESEARCH QUESTIONS

1. What stages of concern do teachers exhibit regarding experiential pedagogy?
2. Which stages are the most prominent (awareness, collaboration, consequence, informational, management, personal, refocusing)?

OBJECTIVES

1. To assess teachers' stages of concern towards experiential pedagogy.
2. To identify dominant stages of concerns that may hinder or promote the adoption process.

LITERATURE REVIEW

Theoretical Foundation of Experiential Learning

Philosophy of experiential learning is rooted in Jean Piaget's constructivism and John Dewey's pragmatism, both of these focusing on learning via reflection and interaction. Dewey's approach focused on inquiry-based experience while Piaget highlighted the cognitive shifts takes place by active participation. Building on the work of Dewey and Piaget, Kolb and Kolb (2008) introduced *Experiential Learning Theory* (ELT), which describes learning as a continuous four-stage cycle including concrete experience, reflective observation, abstract conceptualization, and active experimentation. This iterative process ensures that when students incorporate experience and reflection, learning takes on a meaningful quality. ELT has been used in various fields like management, psychology, and Science education due to its versatile nature. Bartle (2015) suggests that experiential learning goes beyond academic knowledge to build versatile skills like collaboration, critical thinking, flexibility and adaptability. Parahakaran (2017) expands this further by considering experiential learning as a holistic process that includes ethical and emotional development. These ideas are particularly relevant to science education because they align with inquiry-based learning and reflect the investigative nature of the field.

Experiential Pedagogy in Science and STEM Education

A substantial body of literature highlights the importance of experiential pedagogy in enhancing student engagement and strengthening conceptual understanding in science education. McPherson-Geyser, de Villiers, and Kawai (2020) reported that the students of Life Sciences who participated in hands-on learning activities showed greater conceptual comprehension and motivation compared to those students which taught through conventional instructional methods. However, they emphasized that reflective scaffolding is essential to avoid superficial learning outcomes. Similarly, in a review of two decades of educational interventions, Masyitha et al. (2023) observed that experiential learning strategies significantly promote problem-solving abilities, scientific process skills, and learner autonomy but are often hindered by time constraints and inadequate assessment systems. Likewise, Syafriani, Putra, and Kusumawati (2025) examined STEM classrooms and confirmed the cognitive advantages associated with experiential learning, but also stressed while noting that its long-term sustainability relies heavily on teacher preparedness and institutional backing. Supporting these

findings, a meta-analysis conducted by Burch et al. (2019) also revealed a strong positive relationship between experiential pedagogy and academic performance, with the outcomes influenced by the level of teacher expertise and the quality of implementation. Collectively, these findings indicate that although experiential learning is a highly effective pedagogical approach, its successful application requires strong pedagogical skills and thoughtful reflective facilitation to achieve meaningful educational outcomes.

Teacher Readiness and Perceived Concerns

Teachers are the linchpin of educational reform. While policies may promote innovation, successful implementation depends on teachers' readiness to embrace change. Across contexts, educators express both enthusiasm and apprehension toward experiential methods. Apau (2021) found that Ghanaian teachers valued technology-supported learning but struggled with logistics and unclear role expectations. Similarly, Mushi, Mtitu, and Sakile (2025) observed Tanzanian teachers endorsing competency-based curricula while facing material and time-related management issues.

In the context of India, a similar gap between reform aspirations and classroom realities is shown in the policies and institutional documents. The New Education Policy 2020 is focused on experiential and learner-centred pedagogy. For the effective and successful implementation of these innovative pedagogies, teachers need sustainable professional development. To transform policy's vision into the real classroom practice, the NCERT guidelines for Continuous Professional Development focus on the requirement of pedagogical support, ongoing orientation, and mentoring (NCERT, 2022). Similarly, workload pressures, lack of resources, and institutional readiness are identified in the NIEPA document named Implementation Strategies for NEP 2020 as key and systemic challenges for the effective implementation (NIEPA 2020).

To empower teacher capacity in India, non-governmental organisations also play a significant role in addition to governmental efforts. For pedagogical improvements in education, the Azim Premji Foundation prioritises school-based support, continuous professional development programmes, and reflective practices in reports as essential conditions for teachers (Azim Premji Foundation, n.d.). These institutes highlight the broader ecosystem of support required for teachers to engage meaningfully with pedagogical reforms in their reports, but do not constitute empirical assessments of teacher concerns. Conclusively, it shows that teachers' readiness is a gradual developmental process for experiential pedagogy that is influenced by teacher concerns instead of an immediate result of policy mandates. Teachers try to implement educational reforms in their classrooms but are not able to properly impose it due to operationally constrained by contextual and institutional factors. The concept of gradual development of readiness and concern can be well explained by the Concerns-Based Adoption Model (CBAM). The CBAM conclude that there are several changes during the gradual development of readiness; the teachers slowly shift their focus from their own concerns on adoption of innovative pedagogy to concentrating on the broader impact of the changes (Hall & Hord, 2011).

The Concerns-Based Adoption Model (CBAM)

The CBAM developed by Hall and Hord (2011) is categorised into seven stages of developmental processes of innovation adoption, these stages are Awareness, Informational, Personal, Management, Consequence, Collaboration, and Refocusing. Every stage of CBAM shows a gradual shift from self-oriented questions ("What is this innovation?") to student-centred reflections ("How does this improve learning?"). George, Hall, and Stiegelbauer (2006) constructed the Stages of Concern Questionnaire (SoCQ) to operationalize the seven stages of CBAM to map individual or group concern profiles.

Previous studies also support and validate the cross-cultural relevance of CBAM. In a study, Trapani and Annunziato (2021) reported that U.S. teachers exhibited high informational and personal concerns if they implemented the innovative pedagogy via *Understanding by Design*. Similar patterns were observed by Ioannou (2020) in his study in European technology adoption. However, Zhao (2024) in China and Mushi et al. (2025) in Tanzania observed that management concerns were most common due to heavy workload and limited resources. Conversely, Olson, Reinke, and Malone (2020), in their findings, show advancement toward collaboration and refocusing stages by mentoring or structured institutional support. So these findings can conclude that teacher readiness and guiding targeted professional development across educational settings can be assessed by the diagnostic framework of CBAM's effectiveness.

The Indian Scenario and the Emerging Research Gap

The theoretical foundations of experiential learning were articulated by Dewey and Piaget, who were latterly synthesized by Kolb and Kolb's (2008) Experiential Learning Theory (ELT). Most of the previous studies highlight the pedagogical effectiveness instead of investigating the conditions required for its effective implementation. Although studies by McPherson-Geyser, de Villiers, and Kawai (2020), Masyitha et al. (2023), and Burch et al. (2019), support the favourable influence of experiential pedagogy on learners' conceptual comprehension, motivation, and process skills, these studies primarily focus on learner outcomes and frequently miss the teacher's function as a facilitator of experience processes.

Studies by Apau (2021) and Mushi, Mtitu, & Sakile (2025) found that although teachers have conceptual knowledge about the experiential and competency-based reforms, they face several contextual challenges, such as limited resources, inadequate training, and time constraints.

These findings support that both altitudinal and practical teacher readiness are critical for innovative pedagogy adoption. Moreover, the present studies mainly focused on Western or African educational contexts, while there is very limited attention to the Indian setting, especially in the context of the National Education Policy (NEP) 2020, which clearly advocates experiential pedagogy in school education.

Although the CBAM by Hall & Hord (2011) provides a robust framework to assess teachers' developmental stages of concern toward innovations and its application in studying experiential pedagogy adoption, within the Indian context, the use of the CBAM remains very limited. There are a few studies that systematically assessed how Indian science teachers adopt experiential learning approaches in the context of their experience and interpretation under NEP-driven reforms. Additionally, the intersectionality of CBAM and experiential pedagogy remains largely unexplored in the context of Indian empirical research.

Therefore, there is a significant lacuna in conceptualizing the teachers' readiness, perceptions, and concern profiles regarding experiential pedagogy in the realm of science education. Bridging this research gap not only provides theoretical integration between CBAM and experiential pedagogy but also fills gaps of meaningful insights for designing targeted professional development programs that support sustainable pedagogical transformation.

METHODOLOGY

A CBAM guided quantitative descriptive survey was conducted to assess the teachers' concerns for the adoption of experiential pedagogy.

Participants

In this study, we have done purposive sampling among 55 secondary school science teachers, and participants are chosen based on specific criteria such as prior orientation to NEP 2020 reforms and a minimum of one year of teaching experience in science subjects (Classes VIII–X). These types of criterion-based sampling ensured that participants were pertinent to the

study context. Studies support that sample size is in line with methodological practices that use the such Stages of Concern Questionnaire (SoCQ) and Concerns-Based Adoption Model (CBAM), where small to moderate samples are frequently used to produce meaningful concern profiles (George et al., 2006; Hall & Hord, 2011). So, the chosen sample is sufficient for identifying patterns of teacher concerns within the defined context.

Research Instrument

An adopted version of the Stage of Concern Questionnaire (SoCQ) was used for data collection, which is developed by Hall, George, and Rutherford (1979) and refined by George, Hall, and Stiegelbauer (2006). The SoCQ consists of 35 items, and all items are equally distributed across the 7 stages. All 35 items were rated on a 5-point Likert scale, in which 0 indicates Irrelevant concern, and 4 indicates High concern. The SoCQ was chosen due to its strong validity and reliability in educational innovations like technology integration and pedagogical reforms (Trapani & Annunziato, 2021; Apau, 2021; Zhao, 2024). In accordance with the fundamental principles of the experiential pedagogy and goals of NEP 2020, linguistic modifications such as innovation term replace by experiential pedagogy were made for situational applicability. For clarity and cultural appropriateness, pilot testing was conducted with 10 teachers.

Data Collection Procedure

Data collection was done through filling out the Google Form questionnaire via email and social media. Participants' electronic consent was ensured. The duration of data collection was between September and October 2025.

Data Analysis

To assess the levels of concern of the teachers across the seven stages, data were collected through the adapted SoCQ-Experiential Pedagogy and were analysed using descriptive statistics. To establish the intensity and variability and offer a nuanced understanding of awareness, readiness, and implementation challenges of teachers, the values of mean and standard deviation were calculated. An Early-phase concern trend with the CBAM is illustrated in a stage profile graph and also reflects dominant informational and management concerns. The graph also proposes that although teachers have limited actionable readiness for experiential pedagogy, they are conceptually very interested.

Validity and Reliability

Four experts evaluated the validity of the tool. Incorporating experts' feedback to enhance wording precision and avoid ambiguities, minor revisions were made. Cronbach's Alpha was used to determine the reliability of the tool. An overall coefficient value of the tool is 0.70, and the value of stage-wise is ranging from 0.792 to 0.897, which evidences internal consistency of the tool is good to excellent. The highest reliability was observed for the Management stage ($\alpha = 0.897$) and the lowest for Collaboration ($\alpha = 0.792$). These results confirm that the tool is both valid and reliable for assessing teachers' concerns regarding experiential pedagogy under NEP 2020.

RESULTS

The *Adapted Stages of Concern Questionnaire (SoCQ-Experiential Pedagogy)* comprised 35 items categorised into seven stages- Awareness, Informational, Personal, Management, Consequence, Collaboration, and Refocusing. Each stage contained five items rated on a five-point scale (0 = Irrelevant concern to 4 = High concern).

Objective 1: To Measure Teachers' Stages of Concern Regarding Experiential Pedagogy.

To achieve this objective, the mean and standard deviation of each concern stage were calculated to evaluate the relative intensity of teachers' concerns across the seven stages of the CBAM: Awareness, Informational, Personal, Management, Consequence, Collaboration, and

Refocusing. As shown in Table 1, teachers exhibit the highest concern levels in the Informational (M = 3.37) and Management (M = 3.18) stages, while the lowest concern was reported in the Refocusing stage (M = 1.01). The teachers are conceptually keen to understand experiential pedagogy, but they are opaque how to execute it in the real classroom setting, as reflected by this pattern, which highlights an early phase adoption profile.

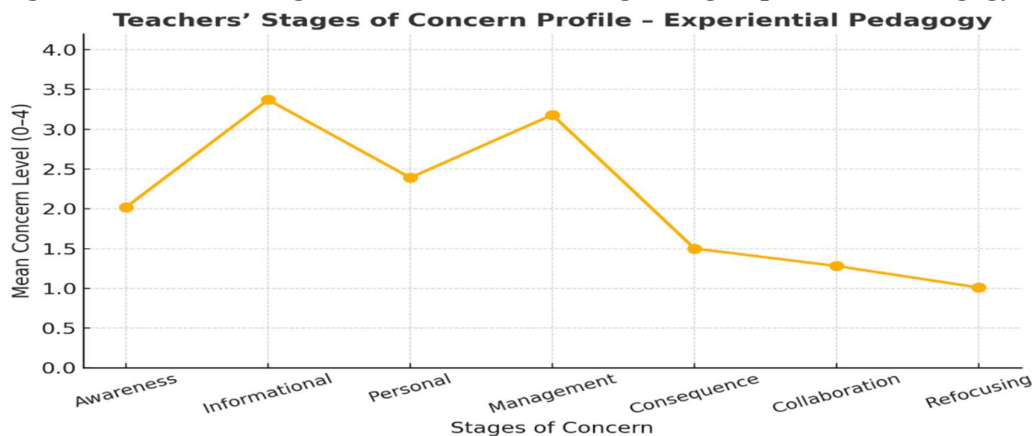
Table 1: Mean and Standard Deviation of Teachers' Concern Stages Regarding Experiential Pedagogy-

Stage of Concern	Mean (M)	SD	Level of Concern
Awareness	2.02	0.54	Moderate
Informational	3.37	0.48	High
Personal	2.39	0.50	Moderate
Management	3.18	0.57	High
Consequence	1.50	0.53	Low
Collaboration	1.28	0.47	Low
Refocusing	1.01	0.55	Very Low

The data reflect that the Informational and Management stages are the primary concerns of the teachers, which showing their interest or curiosity about “what” is experiential pedagogy is and fear or anxiety about “how” to execute it in the real classroom. These concern stages align to the CBAM’s self-and task-oriented phases, which reflecting that teacher’s are in the initial or early pedagogical adoption stages. The Awareness and Personal concerns levels are moderate, which indicate an emerging awareness of experiential pedagogy’s importance but lack of self-confidence in its classroom implementation. However, Consequence, Collaboration, and Refocusing stages levels are low, which reflect that teachers have not yet redirected their attention to evaluating student’s outcomes, engaging in professional collaboration, or innovating beyond the prescribed framework.

Concern Profile

Figure 1. Teachers' Stages of Concern Profile Regarding Experiential Pedagogy



Concern profile demonstrating mean stage scores across the seven stages of the SoCQ-Experiential Pedagogy. In the graphical concern profile (Figure 1), the Informational and Management stages are at their peak but continuously waning through Consequence, Collaboration, and Refocusing, which shows a distinct **early-phase concern pattern**. This pattern corresponds to the self-and task-oriented stages of the CBAM.

Objective 2: To Identify Dominant Concerns that may Hinder or Promote Adoption.

In order to examine this objective and identify which concern stages serve as the facilitating and hindering factors in adopting experiential pedagogy, the mean scores were rank-ordered.

The mean scores were rank-ordered to determine which stages of concern serve as facilitating and hindering factors in adopting experiential pedagogy. The results, displayed in Table 2, show that the Informational and Management stages are most dominant, representing a dual condition of enthusiasm and constraint.

Table 2: Rank Order and Interpretation of Teachers' Concern Stages Regarding Experiential Pedagogy

Stage of Concern	Mean (M)	Rank	Nature of Concern	Interpretation
Informational	3.37	1	High Facilitating –	Teachers are eager to learn about experiential pedagogy and understand its process.
Management	3.18	2	High Hindering –	Teachers are anxious about classroom management, resources, and evaluation logistics.
Personal	2.39	3	Moderate Hindering –	Teachers feel uncertain about personal competence and confidence.
Awareness	2.02	4	Moderate Neutral –	Teachers have basic awareness but limited engagement in practice.
Consequence	1.50	5	Low Limiting –	Teachers are not yet focusing on student outcomes or pedagogical impact.
Collaboration	1.28	6	Low Limiting –	Minimal peer collaboration or teamwork in implementing experiential pedagogy.
Refocusing	1.01	7	Very Low Limiting –	Teachers are not yet considering innovation or improvement beyond policy expectations.

The high level of Informational stage concern indicated that teachers are theoretically or conceptually prepared and motivated to understand experiential pedagogy, constituting a facilitating factor for adoption. In contrast, high Management concern reveals implementation challenges like a lack of adequate resources, heavy workloads, and time constraints, which serve as hindering factors to implementation. Collectively, these patterns show that teachers are in the process of an interim phase between conceptual acceptance and actual application. The high Informational and Management concerns jointly indicate that teachers are in inexperienced but very interested.

DISCUSSION

The present study evaluated the concerns in the adoption of experiential pedagogy by the secondary school teachers in Uttar Pradesh. The Concern-Based Adoption Model (CBAM) was used for the interpretation. Considering all the dimensions, concern pattern demonstrated high at informational (M=3.37), and management (M=3.18), moderate at awareness (M=2.02) and personal (M=2.39), and reported low at consequence (M=1.50), collaboration (M=1.28), and refocusing (M=1.01), which shows the self and task- Oriented stages, indicative of the early phase of innovation adoption (Hall & Hord, 2011; George et al., 2006). The concern pattern

highlights that although teachers are conceptually aware and familiar with experiential pedagogy, they face difficulties in practically implementing it in their classrooms.

Teachers' informational concern reflects that they are interested, excited, and open to learning about the theoretical and practical aspects of experiential pedagogy, which includes instructional design and classroom relevance. Magallanes (2022) among Filipino teachers and Apau (2021) among Ghanaian teachers observed similar patterns, and their studies highlighted the openness with a lack of enough practical clarity, a marker of the early awareness-informational phase of CBAM.

Simultaneously, some studies of non-Western contexts also support these findings, such as according to Mushi, Mtitu, and Sakile (2025), resource constraints and workload pressures created major management issues for Tanzanian teachers in implementing the competency-based curricula. It suggests that these concerns are common in the early phases of pedagogical changes rather than being context-specific. Comparable limitations have been found in the previous studies of experiential-based learning across science and technology education (Beida et al., 2023; *Enhancing Access to Experiential Learning in Science*, 2021).

Additionally, Personal concerns are marked at a moderate level, which highlights that effective implementation of experiential pedagogy-based approaches in the classrooms, teachers showed self-doubt about their practical abilities. This is supported by the previous CBAM based researches, which highlights the impact of self-efficacy of teachers on the adoption of innovations (Hall & Hord, 2011; *Measuring Instructional Change using CBAM*, 2019).

However, concerns of consequence, collaboration, and refocusing were low, which reflects that teachers are primarily concerned with how to implement experiential pedagogy in classrooms rather than assessing its effectiveness. Teachers progressively move towards higher stages like collaboration and refocusing with the help of sustained mentoring and institutional support (Olson, Reinke, and Malone, 2020). These comparisons support the CBAM (Concerns-Based Adoption Model) suitability as a strong framework for understanding the teachers readiness in diverse educational contexts.

Similar Early-stage adoption patterns have been noted worldwide (Kolb & Kolb, 2008; Magallanes, 2022; Apau, 2021). This finding reflects that to facilitate teachers' progress from understanding experiential pedagogy approaches to integrating and refining them into their real classroom settings, continuous mentoring and adequate support from institutions are necessary.

POLICY AND PRACTICE IMPLICATIONS

The findings provide practical recommendations and insights for policy and professional development under the New Education Policy 2020. As reflected in high informational concern, teachers are eager to learn, and this eagerness should be channelled through skill-based training and well-structured orientation. According to Hall and Hord (2011), conceptual clarity to classroom application can support progressive adoption rather than stage-specific capacity-building. Institution leaders must provide and ensure structural flexibility by providing adequate resources, reorganised timetables, and collaborative lesson planning to alleviate management concerns (Kolb & Kolb, 2008; *Enhancing Access to Experiential Learning*, 2021). To institutionalize its practice, experiential pedagogy should be incorporated into appraisal and curriculum frameworks.

Collaboration and refocusing concerns were reported as low, which emphasises the necessity for professional learning networks that promote collaborative lesson planning, peer feedback, and reflection (Perceptions on Behavioural & CBAM-based Change, 2017).

Low collaboration and refocusing concerns highlight the need for professional learning communities that foster shared lesson planning, peer feedback, and reflection (Perceptions on Behavioural & CBAM-based Change, 2017). Research affirms that ongoing mentoring networks and experiential learning reviews strengthen lasting pedagogical change

(Applications of Experiential Learning in Science, 2022; Assessing Experiential Learning, 2021).

Overall findings indicate that teachers in Uttar Pradesh are in the intermediate phase of adoption, conceptually convinced but operationally limited. Instead of one-time training or workshop sessions, which are not enough for genuine reform, it needs continuous, context-sensitive mentorship. When systematic rigidity transforms into supportive flexibility, teachers can be in a better position through the CBAM stages. In such settings, experiential learning can be transformed into the real classroom setting from a vision of policy, which is directly aligned with the NEP 2020's goals.

CONCLUSION

Teachers' stages of concern regarding experiential pedagogy were explored by this study, using the adopted Stages of Concern Questionnaire (SOCQ-Experiential Pedagogy) within the framework of NEP 2020. An early-phase concern pattern was reported. This indicates that while teachers understand the value of experiential pedagogy, they remain uncertain about its practical application.

A gap between NEP 2020's vision regarding experiential learning and the classroom readiness of teachers is reflected by findings. Teachers show interest, eagerness, and willingness to learn about experiential pedagogy, but they struggle with inadequate resources, time management, and restricting their move toward collaborative and innovative practices.

To fill this gap, for conceptual clarity and practical modelling of experiential strategies, targeted capacity-building, mentoring, and training programs should be prioritised. Accessibility of the resources, flexibility, and professional collaboration are prerequisites as a support system from the institution for the sustainable adoption of experiential pedagogy.

In spite of its contributions, the small, context-specific sample size and cross-sectional approach of the study limit its generalization. In summation, the findings reveal that teachers are eager to learn but not yet transformed. The NEP 2020 experiential learning goal can transform from a policy endeavour to the classroom reality via sustained mentoring and systemic support of the institution.

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Lane lines for flipping the Indian Classroom: A Teacher-Educator Perspective

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ABSTRACT

Flipped learning has been associated with positive learning outcomes and increased student engagement but the literature review highlights the lack of ‘know how’ to actually implement the concept of flipped learning into real-life practice. The current study aimed at garnering responses from 64 teacher-educators with experience in flipped approach about features appropriate for flipping a secondary stage classroom. For this, a semi-structured interview schedule was used to collect data which was analysed for preferred features. It was concluded that flipped learning has the potential to revolutionise school education provided technological and foundational hurdles are mounted. A partial flipped model with a strength of 16-25 students which uses short duration video lessons created and curated by teachers and subject experts was determined to be most appropriate. Student paced lessons which aimed at improving students’ understanding with small embedded quizzes and collaborative discussion (both online and in-class) were recommended. The study provides a practical framework to put flipped learning into practice. The study would be beneficial for stakeholders looking to implement this blended pedagogical approach as well as for researchers looking to analyse flipped learning further.

Keywords: Flipped Learning, Teacher Education, Technology Integration, Implementation Challenges

LANE LINES FOR FLIPPING THE INDIAN CLASSROOM: A TEACHER-EDUCATOR PERSPECTIVE

With the unprecedented influx of technological advancements in every sphere of human life, education systems around the globe are under increasing pressure to use new information and communications technology to equip the learners with 21st century competencies and knowledge. The school system modeled during the Industrial era has long been under attack for its failure to stimulate creativity and critical thinking as the paradigm of teaching and learning has shifted from student-centered learning to student self-directed learning (Sumardi et al., 2020). NEP 2020 has stressed the amalgamation of innovation, technology and education stating, “technology will impact education in multiple ways, only some of which can be foreseen at the present time”. Gamification in lessons, Online Learning Management Systems, use of QR codes in textbooks - these are but a few examples as how education is incorporating technology in an unprecedented manner. By fusing aspects of in-person instruction with technology-enabled learning to connect individuals remotely, educators have been developing new ways to deliver education. The change in student demographics along with accessible Internet technologies and increasing interests in finding alternatives to traditional learning spaces has facilitated the educationists to contemplate newer modes of instruction. Flipped classroom is one of the many concoctions that have emerged in the process.

Flipped Learning

Flipped learning which has classroom components supplemented by remote online lessons or exercises is classified as one of the four rotational models in Staker and Horn’s (2012)

categorisation of blended learning (others being – Station-rotation, Lab-rotation and Individual-rotation). This strategy came into light as chemistry teachers Jonathan Bergmann and Aaron Sams from Woodland Park High School recorded live classes and streamed them online for students who could not attend (Bergmann & Sams, 2014; Ozdamli & Asiksoy, 2016). Before the phrase was coined, however, previous studies had experimented with similar activities, using terms such as “inverted classroom” (Lage et al., 2000) in which students learn the primary course content outside of class and actively engage with the content during class. Flipped Learning is a rotation-model implementation in which within a given course or subject (e.g., math), students rotate on a fixed schedule between face-to-face teacher-guided practice (or projects) on campus during the standard school day and online delivery of content and instruction of the same subject from a remote location (often home) after school (Staker & Horn, 2012). A Flipped Classroom differs from students who are only using the internet to complete homework at night because the majority of the content and instruction are delivered online in flipped setup. Since the Flipped-Classroom model gives students the ability to select where they receive online instruction and content as well as how quickly they progress through the online components, it aligns with the notion that blended learning involves some degree of student control over time, place, path, and/or pace. The in-class interaction is focussed on what the learners have learned independently transforming the classroom into a dynamic and collaborative workspace filled with activities like discussions, projects and student demonstrations showcasing what they have learned.

Flipped learning in India

Flipped learning provides a framework for aligning instruction with Bloom's Taxonomy by shifting the focus from passive listening to active learning and higher-order thinking skills with lower orders achieved through learners' independent study and higher levels are engaged within the classroom as student-teacher interaction. Numerous studies across grades and disciplines have been conducted globally on flipped learning. Meta-analyses associated flipped learning with positive learning outcomes and significant positive effect on cognitive and affective domains on school students (Bredow et al., 2021; Låg and Sæle, 2019; Li et al., 2024 & Van Alten et al., 2019). In India, Jha et al. (2024) found flipped classrooms advantageous for medical students and reported positive perception of students towards the approach as it improved performance and engagement. They also suggested detailed planning and consistent efforts as prerequisites for effective execution. Studies done on school students have found flipped learning associated with improved test scores and retaining capacity of students, increased parental interest and positive student perception (Gayathri et al., 2019; Ligi, 2019; Manoharan & Birundha, 2019). Mohanty and Parida (2016) recommended collaboration rather than substitution of flipped learning with traditional methods. Kundu et al. (2022) while reporting better results for face-to-face students than flipped or online groups advocated flipped classroom model as a viable alternative to the traditional classroom, especially in mathematics courses at elementary level as schools aimed to become more resilient in the face of abrupt and unforeseen closures.

RATIONALE OF THE STUDY

The literature lacks explicit guidance for teachers on in-class arrangements, despite the fact that the flipped classroom has been described as a general paradigm shift in which what was formerly done in the classroom (i.e., learning primary course content) is now done outside of the classroom. Previous research shows that students may have negative perceptions about flipped classrooms when there is no set structure (Strayer, 2012). The lack of ‘know how’ to actually implement the concept of flipped learning into real-life practice are obstacles often encountered: a finding that has been validated in related educational research (Bergmann & Sams, 2012; Findlay-Thompson & Mombouquette, 2014). Eppard and Rochidi (2017)

attempted to provide a framework for flipped learning based on the existing literature but their efforts were concentrated on theoretical underpinnings rather than a practical guide. The almost limitless design possibilities may seem daunting to potential faculty members considering this method of teaching, thus an investigation to define design specifications of flipped classrooms such as pace of classrooms and optimal face-to face instruction could provide guiding light to members who are willing to try flipped learning but unsure where to begin (Uzunboylu et al., 2015). Though flipped learning prides itself in providing numerous possibilities, it is pertinent that some form of uniformity in terms of structure and implementation is provided to willing teachers and educators who may at first feel overwhelmed by the fear of additional workload and uncertainty of success. Chellapan et al. (2018) highlighted the importance of exactness to avoid conceptual confusion while introducing flipped classroom models. Mohanty and Parida (2016) while stating the lack of research regarding the efficacy of flipped learning in India, stressed upon the need to know the basis of implementation of flipped classroom so that it explicitly benefits teaching and learning, in comparison to the traditional mode of teaching. Rai and Gautam (2025) proposed a prospective framework to flip pre-service teacher programs based on the theoretical inputs identified in the related literature synthesized with the theory of learning by teaching. The current study focuses on proposing a framework for secondary level based on the responses of teacher-educators who have experimented with flipped learning. The responses from teacher-educators with experience of flipped classrooms are expected to provide key insights about the structure and implementation of flipped learning given their deep pedagogical knowledge, years of practical experience and technological exposure (Latorre-Coscolluela et al. 2021). The current study focused on asynchronous video lessons as Zhang et al. (2006) favored video lectures over other e-learning environments highlighting the importance of integrating interactive instructional video into e-learning systems.

RESEARCH OBJECTIVES

While research has demonstrated the potential benefits of flipped learning, a significant gap exists in understanding how to effectively implement this approach in real-world classroom settings. This study aimed to address this gap by exploring the perspectives of experienced teacher-educators on the key features and considerations for successfully implementing flipped learning in secondary education. For this, the study was guided by following objectives -

1. To gain insights from the flipped experiences of teacher-educators regarding opportunities and challenges of flip learning
2. To prepare a draft of asynchronous video lesson based flipped classroom derived from the responses of teacher educators

METHODS

Participants

Data was collected from the teacher-educators from the Department of Education in the University of Lucknow and its affiliated colleges within the Lucknow city. The participants were identified through gatekeepers (Lamprianou, 2022) i.e. heads of the department, principals and senior professors. The participation in the study was completely voluntary and a total of 64 teacher-educators (42 females and 24 males) agreed to participate in the study. Participants were selected through purposive sampling as the study required those teacher-educators who had experience of flipped classrooms for at least one semester. The sample size was guided by the 10+3 recommendations of Francis et al. (2009) where initial analysis required at least 10 interviews and data saturation was reached when no new themes or information emerged from three consecutive interviews.

Instrument & Data Collection

Cross-sectional data was collected using a semi structured interview schedule developed by the researcher. Semi-structured interviews gave the researcher flexibility and opportunity to gain insights about respondents' experience, clarify doubts which arose and at times reassure confidentiality and seek explanation thereby increasing the response rate. Content and face validity of the tool was ensured through expert opinion. The data was collected through a mix of face-to-face meetings and telephonic interviews as per the convenience of the participants. The duration for the interview was scheduled to be 30 minutes and each session lasted between 20-35 minutes. The interview aimed at collecting information related to two broad domains - the insights on experience with flipped approach and the recommendations for structure and video lessons. The basic interview schedule had a total of 10 questions with the first four related to insights (e.g. What were the noteworthy challenges that you encountered in your flipped experience?) and the rest collected preferred settings for flipping the classroom at secondary stage (e.g. According to you, what should be the ideal model and class size for flipping a secondary Indian classroom?).

Data Analysis

The sessions were transcribed and their content analysed by the researchers for both identifying predefined and emergent themes as well as coding and categorising responses using hybrid thematic approach. An inductive approach was employed to capture and code the strengths and challenges that emerged from transcription while the preferred features were categorised deductively in the pre-decided categories identified through literature. The inductive codes from interview text resulted in a codebook which was used to record presence or absence of a particular theme in a given participant's response. A tally mark was awarded when a participant mentioned the specific theme. All tally marks under a code were counted which helped the researchers in quantifying the qualitative insights related to challenges and strengths to be summarised in a wordcloud. A word cloud based on frequency of recurrent codes was generated using the free online tool *wordclouds.com* to visually represent the prominence of recurring themes regarding opportunities and challenges of flip learning at secondary stage while Google Sheets was used to organise, calculate and analyse quantitative data. The second author independently coded a randomly selected subset of the transcripts to verify the clarity and applicability of the initial codebook. A unified coding scheme was established through a series of consensus-building sessions. To ensure credibility, summaries of key findings were shared with a subset of participants to verify accurate reflection of their experiences in the interpretation.

RESULTS

Table 1

Results of Structure related dimensions

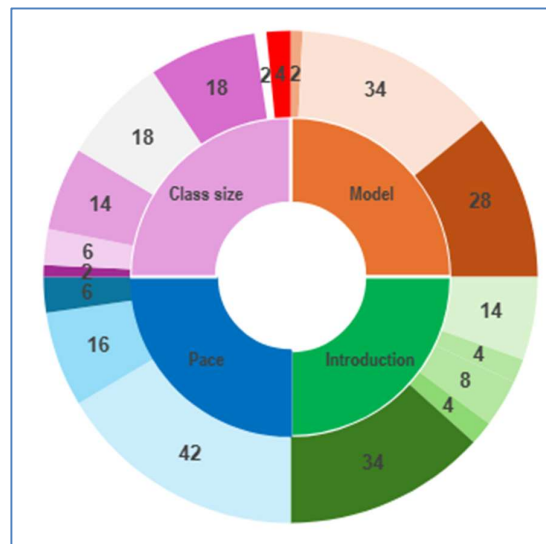
Element	Options	Number of responses	Percentage
Model	Traditional	2	3.125
	Partial	34	53.125
	Holistic	28	43.75
Introduction	Complete curriculum flipped	0	0
	Part of session flipped	14	21.875
	Subject flipped	4	6.25
	Unit flipped	8	12.5
	Chapter flipped	4	6.25
	Topic flipped	34	53.125
Pace	Student paced	42	65.625

Class strength	Instructor paced	16	25
	Pre-defined pace	6	9.375
	1-5	2	3.125
	6-10	6	9.375
	11-15	14	21.875
	16-20	18	28.125
	21-25	18	28.125
	26-30	2	3.125
	>30	4	6.25

Table 1 summarises the structure related features of a flipped classroom. As shown in figure 1, a partial flipped model for a class size less than 25 students was recommended by the teacher-educators. Small class size ensures that students receive focussed attention and engaged learning. Student paced flipping for a particular topic was found suitable for the secondary stage. This structural transparency allows learners to focus on the content and the novel learning processes without being hampered by confusion or uncertainty about the mechanics of the method itself.

Figure 1

Two-Layer Doughnut Chart depicting Teacher-educators' responses on Structure of Flipped Classroom



Note. The inner ring represents four categories of structure attributes of flipped classroom: Preferred model (orange), Introduction of flipped learning (green), Pace of the classroom (blue) and Class size (purple). The outer ring shows corresponding subcategory responses for each category. The numbers in the outer ring reflect the number of responses in each subcategory.

Table 2

Video lesson structure

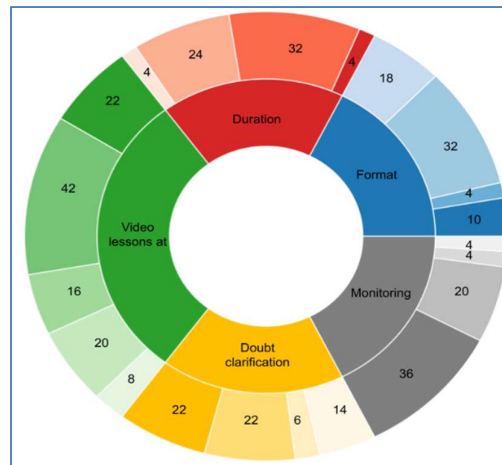
Elements	Options	Number of Responses	Percentages
Format	Voice over explanation using pen-tip	10	15.625
	Recorded video of classroom	4	6.25

	Animation based lecture (with teacher)	32	50
	Animation based lecture (without teacher)	18	28.125
Duration	0-10 mts	4	6.25
	10-20 mts	32	50
	20-30 mts	24	37.5
	> 30 mts	4	6.25
Video lessons at	At home	22	34.375
	At school	42	65.625
	Before class	16	25
	During class	20	31.25
	After class	8	12.5
Doubt clarification	Collaborative Discussion board	22	34.375
	In class discussion	22	34.375
	FAQs	6	9.375
	Audio/Video Conferencing	14	21.875
Monitoring	No monitoring	0	0
	Lesson embedded quizzes	36	56.25
	Discussion with teacher after watching	20	31.25
	Online supervision	4	6.25
	Peer review	4	6.25

Table 2 outlines the format of video lessons for a flipped classroom. Video lessons are a cornerstone of the flipped classroom model, playing a crucial role in its effectiveness. Small duration animated videos with the teacher's presence watched in school were suggested by teacher-educators. Monitoring was recommended to ensure students came to class after watching the lessons and their generic doubts had been resolved leaving the in-class interaction ample time for active learning activities. To visualise the overall response patterns, a two-layer doughnut chart (Figure 2) was created, presenting the relative distribution of participant responses across five categories and associated subcategories of video lessons for secondary stage flipped classrooms.

Figure 2

Two-Layer Doughnut Chart depicting Teacher-educators' responses on Video-lesson attributes of Flipped Classroom



Note. The inner ring represents five categories of attributes related to video lessons of flipped classroom: Duration of video lesson (red), Preferred format (blue), Monitoring tool (grey), Doubt clarification tool (yellow) and Preferred slot to watch video lessons (green). The outer ring shows corresponding subcategory responses for each category. The numbers in the outer ring reflect the number of responses in each subcategory.

MAJOR FINDINGS

- Teacher-educators are by and large favorable towards flipped approach due to its student-centric approach provided network and accessibility issues are sorted.
- Partial student-paced flipping should be introduced in a class of 16-25 students.
- Animated video lessons with teachers of 10-20 minutes duration should be curated with small quizzes to ensure monitoring and collaborative discussion boards as well as in-class discussion for doubt clarification.
- Creation and selection of video lessons must involve inputs from teachers and students as well as subject experts and professional content creators.

Experience with Flipped

Most teacher-educators recalled their excitement as they grappled with significant effort and time in the initial phases demanded by the shift from traditional lesson planning. Decisions regarding platforms, digital tools, content and in-class activities were modified as the situations arose. Students' enthusiasm overcame digital divide and technical glitches. As the focus was on trying out a pedagogical approach, there was no comparison with the control group or limited emphasis on academic scores but the learning output of the students was said to be improved in general. Few teacher-educators still employ flipped learning whenever they find enthusiastic candidates and enough leeway. The recurring themes of strengths and challenges have been summarised in Figure 3.

Figure 3

Strengths (green) & Challenges (red) of Flipped Learning as reported by Participants



Note. The word cloud shows participant-reported strengths (in green) and challenges (in red) of flipped learning. Font size reflects the relative frequency of each keyword mentioned across responses.

Perceived Benefits

A shift from traditional, teacher-centered passive approach to a more student centric active approach which incorporated technology was the sentiment most echoed during interaction with teacher-educators. A teacher-educator remarked - “*How wonderful it would be for a student to pause, rewind and replay parts of a lesson they did not understand at first go ...*” while highlighting the repeatable nature of video lessons. Flexibility and personalised learning which encouraged students to take active participation in classroom activities was also associated with flipped approach. Flipped learning provides opportunities to bridge learning gaps in a diversified classroom as it caters to diverse learning needs and pace of students.

Hurdles in Implementation

Flipping a classroom involves logistic and network issues not to forget participation reluctance of both learners and administration. Both teachers and students have to be encouraged to break out of their mold and overcome their respective hesitations. Students need extra guidance and support especially at the initial stage while teachers need training and resources to effectively implement flipped strategies. Content curation is an area that needs to be looked into before flipping a classroom.

DISCUSSION

Han and Røkenes (2023) opined challenges and advantages are two sides of the same coin in a flipped classroom as addressing the challenges would be beneficial as they presented opportunities for growth and learning. Teacher-educators were supportive of the idea of flipped learning and regarded it as an active, personalised and flexible approach provided challenges like initial hesitation and technological hurdles were addressed. The study acknowledged the challenges associated with implementing flipped learning, including technological barriers, teacher training and student motivation and engagement. Partial flip model which incorporated both video and in-class lectures were the most popular choice as it traces a middle path between traditional and novel teaching approach. This is in line with findings of Van Alten et al. (2019) which reported that when quizzes are introduced or the amount of in-person class time is not decreased, students in flipped classrooms attain better learning results than those in non-flipped courses. The teacher-educators preference for small class size is in tune with recommendations of Freeman et al. (2014) who found profound increased academic achievement in small sized STEM classes with active learning. Introducing flip to the uninitiated will be a daunting task and teacher-educators recommend flipping a topic as the best way where students take reins of learning in their hands. Video lectures are perhaps the most distinct feature of flipped learning and the use of existing videos with customisation may absolve some of the pressure of creating new lessons given that copyrights and credits are given their due and some profit-sharing mechanism is adopted. Half the responses favored lessons of duration of 10-20 minutes explaining and improving understanding of the topic, keeping in mind the cognitive and physical well-being of students. Truancy can be addressed using several monitoring methods but small quizzes would be appropriate as they would not only provide a formative assessment but also ensure the flow of learning is not disrupted as the students adapt to learn outside the classroom as the teacher settles in the role of a facilitator rather than protagonist.

CONCLUSION

The nature of flipped learning gives creative opportunities and flexibility in terms of implementation as it is associated with increase in student engagement and better student performances. The broader aim of the study was to chalk out a framework of features which teacher-educators, who had experienced flipped learning, felt would be relevant to introducing flipped approach to secondary stage students. Based on the interviews and questionnaire responses, it was concluded that flipped learning has the potential to revolutionise school

education provided technological and foundational hurdles are mounted. A partial flipped model for a class of 16-25 students which used short duration video lessons which were created and curated by teachers and subject experts. Student paced lessons which aimed at improving students' understanding with small embedded quizzes and collaborative discussion whether online or in-class was recommended.

The findings of this study carry significant implications for educators, policymakers, and researchers. For educators, the study provides valuable guidance on how to effectively implement flipped learning in their classrooms. For policymakers, the findings highlight the need for adequate infrastructure and professional development support to facilitate the successful adoption of this innovative pedagogical approach. For future research, an experimental study of recommendations of the study can be carried out to evaluate the academic efficacy of the model. Further, opinions of students, parents and teachers are vital as they are important stakeholders whose views would be significant in implementation of flipped learning. A similar study can be carried out to incorporate their suggestions as well. In flipped learning, multiple formats such as websites, audio clips and pdfs are used to enhance the learning experience of the students along with the possibility of synchronous engagement. The current study focused on the use of asynchronous video lessons which can be expanded to include other possible synchronous and asynchronous technologies.

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Technostress and Academic Self-Efficacy among Higher Education Students

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ABSTRACT

The growing use of digital technologies in higher education has both altered the teaching-learning process, and has also brought about new sources of academic stress. This paper evaluates the extent of technostress and academic self-efficacy among the students of higher education and discusses the association between the two constructs by differentiating across the chosen academic and demographic variables. A descriptive survey was used to gather data using 324 students whose data was obtained by using standardized scales of technostress and academic self-efficacy. Data was analyzed using descriptive and inferential statistical tests, which were correlation, t-test, and ANOVA. The findings showed that there was an average amount of technostress and high amount of academic self-efficacy among the students. There was a significant positive connection between the technostress and academic self-efficacy, which showed that the adaptive stress could be created by the manageable level of technological stress and boost the computer and internet students in relation to their academic assignments. The differences were significant in terms of the discipline, programme level, and locality but not in terms of gender. The findings highlight the contextual nature of technostress and underscore the importance of balanced technology integration and institutional support in fostering students' academic self-efficacy within digital learning environments.

Keywords: Technostress; Academic Self-Efficacy; Digital Learning; Student Well-being; Higher Education.

INTRODUCTION

The high digitalization of higher education has radically changed the way students interact in universities in terms of learning, research and communication on academic matters. The online assessments, learning management systems, online libraries and virtual collaboration tools have increased access to knowledge and learning flexibility. Nevertheless, in addition to the mentioned advantages, students constantly face the stress that is related to the constant usage of digital technologies, which is often defined as technostress. Technostress is defined as the mental pressure stemming out of inability to adapt, cope with or handle information and communication technologies (ICTs) in educational and work life (Brod, 1984; Tarafdar et al., 2011).

Meanwhile, academic self-efficacy, the idea of students to be able to excel at academic tasks successfully, is also an important factor in motivation, persistence and achievement in higher education (Bandura, 1997; Pintrich and De Groot, 1990). In learning systems mediated digitally, the youth are becoming more and more confidence in their ability to cope with their academic needs alongside their ability to cope with technological needs. Overload of information, being able to connect all the time, and the quick pace of digital platforms can destroy the sense of control and competence among students, thus influencing academic self-efficacy (Ayyagari et al., 2011; La Torre et al., 2019).

According to existing literature, there is dynamic relationship between technostress and academic self-efficacy. High technostress, especially the factors of techno overload and techno

complexity, may decrease perceived academic competence and engagement in students on the one hand (Califf et al., 2020; Jena, 2015). Conversely, students whose academic self-efficacy is stronger can perceive technological problems as solvable, which would decrease the adverse effect of technostress (Joo et al., 2013). Due to the increased rate of digital infrastructure development in Indian higher education and more so after policy changes like SWAYAM and National digital library, there is need to empirically analyze the relationship between technostress and academic self-efficacy in university students.

It is against this background that the current research explores the content of technostress and academic self-efficacy among higher education students in the state of Bihar and their association with each other with regard to chosen demographic and academic variables. This relationship is the key to developing an institutional intervention that facilitates the psychological well-being of students and their academic achievement in technology intensive learning environments.

REVIEW OF LITERATURE

The review of literature is organized thematically in alignment with the objectives of the study.

Technostress in Higher Education

Technostress was first coined to narrate the impossibility of persons to effectively adjust to new computer technologies (Brod, 1984). Technostress in modern higher education has taken a multidimensional nature including techno overload, techno complexity, techno invasion, techno insecurity, and techno uncertainty (Ragu Nathan et al., 2008; Tarafdar et al., 2011). Techno overload means that technology may compel users in working more rapidly and with a great amount of information, whereas techno complexity indicates the inability to master and utilize complicated digital mechanisms.

Empirical research has shown that technostress among university students is the most common as a result of constant online interaction, the presence of numerous academic messages, and the necessity to use a variety of digital communication tools at the same time (Ayyagari et al., 2011; La Torre et al., 2019). These situations add to mental burnout, worry and lowered academic concentration especially within the setting of resource limited learning.

Academic Self-Efficacy and Student Outcomes

The academic self-efficacy is a fundamental aspect of the social cognitive theory and is closely linked to motivation, tenacity and academic success of students (Bandura, 1997). Students who have high self-efficacy tend to use effective learning styles, persevere in difficult tasks and also control their learning behaviors (Pintrich, 2000). On the other hand, continued exposure to failure or feeling of helplessness can also undermine self-efficacy beliefs and lower academic involvement.

Self-efficacy in technology mediated learning environment is not only subject based but also related to confidence in using digital tools. The challenges in accessing or using technology can thus be translated to wider concerns regarding academic competence particularly where the performance in technology can be directly related to assessment and evaluation.

Relationship between Technostress and Academic Self-Efficacy

An increasing amount of research indicates that there is a high degree of connection between technostress and academic self-efficacy. There have been reports of high techno overload and techno complexity associated with a decrease in perceived competence and growth in academic anxiety in students (Califf et al., 2020; Jena, 2015). In stress coping terms, students who evaluate technological demands to be greater than their coping resources tend to get stress and decrease in self-efficacy (Lazarus and Folkman, 1984).

Nonetheless, the correlation is not entirely negative. Even high self-efficacy students can perceive technological difficulties as mastery opportunities and thus they will experience manageable or even stimulating stress levels (Joo et al., 2013). This is an indication that academic self-efficacy may serve as both an aftermath of technostress and a collaborating factor that influences the way students think and react towards technological needs.

Moderating Role of Individual and Institutional Factors

Technological experience in the past, resilience, as well as positive attitudes towards technology are all individual factors that have a significant impact on the level of technostress (Tarafdar et al., 2019). Students that are more exposed to digital tools also report lower techno complexity and increased confidence in academic work. Motivating factors in the institution are also significant.

Technostress has also been alleviated through sufficient technical assistance and training and a positive learning environment that has been demonstrated to boost the academic self-efficacy of students (Ragu Nathan et al., 2008; Tarafdar et al., 2011). In spite of these revelations, empirical research that helps in the study of both technostress and academic self-efficacy and specifically in the Indian context of higher education is scarce. This gap highlights the necessity of context specific study based on demographic and academic factors including gender, locality, field of study, level of program and type of an institution.

RATIONALE FOR THE PRESENT STUDY

Introduction of ICT in Indian higher education has grown at a phenomenal pace transforming teaching learning processes, assessment practices, and research activities. As national projects assume to democratize the access to digital learning, the students are also expected to adjust to higher technological requirements. These requirements can create technostress, which influences the psychological well-being of students and their academic confidence in situations characterized by infrastructural inequalities and the digital literacy level.

Despite extensive literature on technostress, little has been done to determine the relationship between technostress and academic self-efficacy of higher education students in India, especially those in semi urban and rural areas. Since self-efficacy is a vital factor in academic achievement then it is necessary to know how technostress relates with self-efficacy in order to come up with effective policies and student support systems at the institution. The current research aims to fill this gap by investigating technostress and academic self-efficacy by systematically examining among the university students in Bihar.

OBJECTIVES OF THE STUDY

1. To examine the level of technostress among higher education students.
2. To assess the level of academic self-efficacy among higher education students.
3. To study the relationship between technostress and academic self-efficacy.
4. To analyze differences in technostress and academic self-efficacy with respect to gender, discipline, programme and locality.

HYPOTHESES OF THE STUDY

Based on the theoretical foundations of Social Cognitive Theory (Bandura, 1997) and the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984), the following hypotheses were formulated:

H1: There is a significant relationship between technostress and academic self-efficacy among higher education students.

H2: Technostress significantly differs across gender, discipline, programme level, and locality.

H3: Academic self-efficacy significantly differs across gender, discipline, programme level, and locality.

H4: Moderate levels of technostress are positively associated with academic self-efficacy, indicating a potential facilitative (eustress) effect.

METHODOLOGY

The research design used was descriptive survey to investigate the relationship that exists between technostress and academic self-efficacy of higher education students in Gaya district, Bihar. A total of 324 students who were selected through convenient sampling on a central university, a state university, and affiliated colleges were used as the sample. The dependent variables were technostress and academic self-efficacy, the independent variables were gender, discipline, programme and locality.

The adapted standardized tools were administered using an online questionnaire with prior consent. The data was analyzed by the descriptive statistics, correlation analysis, independent samples t tests, and one way ANOVA since parametric testing assumptions were met.

DATA ANALYSIS AND INTERPRETATION

The data collected were evaluated through descriptive and inferential statistics according to the mentioned objectives. Assumptions of normality were looked into before inferential analysis. The values of skewness and kurtosis of technostress (Sk = -0.26; Ku = -0.04) and academic self-efficacy (Sk = -0.98; Ku = 1.69) were within the acceptable range, which supports the use of parametric statistical methods.

Table 1: Descriptive Statistics of Technostress (N = 324)

Dimension	Mean	SD	Skewness	Kurtosis
Techno-Overload	15.80	2.77	-0.20	-0.36
Techno-Invasion	9.04	1.71	-0.10	-0.19
Techno-Complexity	12.70	3.25	-0.09	-0.22
Overall Technostress	37.53	5.96	-0.26	-0.04

Result: Descriptive analysis revealed an average level of technostress on higher education students (M = 37.53, SD = 5.96), techno-overload had the greatest role, then techno-complexity and techno-invasion. The score distributions indicated that the students could manage the demands of the digital environment, but constant exposure to technology presented academic functioning with perceivable stress.

Table 2: Descriptive Statistics of Academic Self-Efficacy (N = 324)

Variable	Mean	SD	Skewness	Kurtosis
Academic Self-Efficacy	72.38	12.56	-0.98	1.69

Result: The results also showed that academic self-efficacy of students was high (M = 72.38, SD = 12.56). This shows that, in spite of technological difficulties, students were more or less confident in their academic skills which implies adaptive coping and resilience in the setting of digital learning.

Table 3: Correlation between Technostress and Academic Self-Efficacy

Variables	r	p-value	Result
Technostress × Academic Self-Efficacy	.32	< .01	Significant

Result: The findings revealed a moderate positive correlation ($r = .32$, $p < .01$) between technostress and academic self-efficacy. While this suggests a statistically significant association, the interpretation requires caution. Rather than implying a direct beneficial effect of technostress, the result may indicate that students who are more engaged with digital

academic environments simultaneously experience higher technological demands and develop stronger efficacy beliefs.

This aligns with the challenge–hindrance stressor framework, where certain stressors—when perceived as manageable—may function as challenge stressors, promoting growth and competence. However, the cross-sectional nature of the data limits causal inference

Table 4: Gender-wise Comparison of Technostress and Academic Self-Efficacy

Variable	Gender	Mean	SD	t-value	Result
Technostress	Male	37.04	6.19	-1.63	Not Significant
	Female	38.13	5.62		
Academic Self-Efficacy	Male	71.80	13.39	-0.92	No Significant
	Female	73.10	11.48		

Result: Technostress and academic self-efficacy are not considerably affected by gender among students.

Table 5: ANOVA Results for Technostress across Discipline, Programme, and Locality

Variable	Factor	F-value	p-value	Result
Technostress	Discipline	2.48	< .05	Significant
	Programme	7.30	< .01	Significant
	Locality	6.74	< .01	Significant

Result: The ANOVA findings showed that technostress is not the same across discipline, programme level and locality. It implies that academic discipline, level of programme, and locality background have a significant impact on influencing the experience of technological stress among higher education students.

Table 6: ANOVA Results for Academic Self-Efficacy across Discipline, Programme, and Locality

Variable	Factor	F-value	p-value	Result
Academic Self-Efficacy	Discipline	6.39	< .01	Significant
	Programme	5.60	< .01	Significant
	Locality	6.71	< .01	Significant

Result: The results demonstrate statistically significant variations in self-efficacy in academic performance depending on the discipline, level of programme and locality, meaning that the differences in academic exposure, institutional setting, and learning environment can affect the confidence of the students in their academic performance.

RESULTS AND DISCUSSION

The present study aimed to examine technostress and academic self-efficacy and their interrelationship within digitally mediated higher education contexts.

The findings indicate a moderate level of technostress, with techno-overload emerging as the dominant dimension. This supports prior research suggesting that continuous connectivity and information demands contribute to cognitive strain. However, rather than interpreting this solely as detrimental, the findings suggest that students may be adapting to persistent technological demands, reflecting evolving digital competencies.

At the same time, high academic self-efficacy among students suggests a strong belief in their academic capabilities. From a social cognitive perspective, this may reflect accumulated mastery experiences and successful adaptation to digital learning environments.

Importantly, the positive association between technostress and self-efficacy should not be interpreted as evidence that stress is inherently beneficial; rather, this relationship may reflect increased exposure to academic technologies, which simultaneously imposes greater demands

while enhancing competence, or it may indicate that students with higher self-efficacy are more inclined to engage with challenging technological tasks, thereby reporting higher levels of technostress.

This interpretation aligns with the transactional framework of stress, wherein outcomes depend on individuals' cognitive appraisal and available coping resources (Richard S. Lazarus & Susan Folkman, 1984), suggesting that technostress may function as eustress only under conditions of adequate support and coping capacity.

The absence of gender differences suggests that digital academic demands are relatively uniform across male and female students, possibly due to similar access and expectations in higher education settings.

In contrast, significant differences across discipline, programme level, and locality highlight the contextual nature of both technostress and self-efficacy, as these variations may be attributed to differential technological exposure and curriculum demands, variations in institutional infrastructure and levels of digital literacy, as well as unequal access to support systems, particularly between rural and urban contexts. These findings reinforce the importance of context-sensitive educational policies, rather than generalized assumptions about student experiences.

CONCLUSION

Technology has become a part of higher education, one which has great impact on the academic practices and psychological involvement of the students in the learning process. The presence of moderate technostress and high academic self-efficacy is indicative of the ability of the students to adjust to technology-intensive academic settings. Although the pressures associated with academic technologies are connected with workload, complexity, and constant connectivity, students are to a great extent confident in their skills in coping with academic tasks. The positive correlation between technostress and academic self-efficacy demonstrates that the demands associated with technology when applied at manageable levels can be adaptive stress and stimulate the development of skills, finding solutions and academic competence. Findings of variation in technostress and academic self-efficacy among disciplines, programme levels, and localities point to the role played by academic context, institutional infrastructure, and learning environments on the technological experiences of students and their levels of confidence. Concurrently, the lack of gender differences indicates that there is no significant difference in exposure and the use of academic technologies by both male and female students. All in all, successful and sustainable integration of technology in higher education must be institutionalized through the institutional mechanisms that enhance digital capabilities, offer sufficient academic and technological support, and alleviate too much technological overload. This kind of strategy can help to make sure that technology serves as an aid to learning and academic self-efficacy, as opposed to being a cause of ongoing academic stress and, as such, help to improve academic performance and student health.

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Understanding Silence: A Sociological Exploration of the Challenges Faced by Elderly Cybercrime Victims in Approaching Formal Reporting Channels in India

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ABSTRACT

The Indian society is digitizing at a rapid pace. This development has resulted in new opportunities for senior citizens to utilize technology but, at the same time, has also exposed them to severe cybercrime threats. This paper examines the socio-cultural barriers that prevent senior Indians from coming forward to report their experiences of victimization due to hacking. Previous studies have already pointed out the knowledge gaps, decreased intentions to report, inefficiencies in the reporting system, and vulnerabilities intersecting with digital literacy, gender, and socio-economic factors. We have discovered that senior citizens are struggling to navigate digital environments because of insufficient awareness about online cyber threats and risky online practices, which are further worsened by the hindrances created by institutions to make complaint filing easier. The significance of this paper is threefold: it belongs to the growing literature on digital gerontology and the victimology of cybercrime by highlighting an impediment in the Indian socio-cultural setting. The findings suggest that the need for immediate action to safeguard this vulnerable group in a rapidly digitizing environment is imperative.

Keywords: Cybercrime, Reporting, Vulnerability, Elderly, Victimization.

INTRODUCTION

People live, talk, and do business in very different ways now that the digital change has happened. India's digital infrastructure is growing as one of the fastest, and well over 700 million people use the internet there. Technology has become a part of daily life in a way that has never been seen before (Kumar & Patel, 2021). This digital shift is meant to make it easier to connect and obtain services, but it has made life more dangerous, especially for older people who use these spaces with varying levels of knowledge and skill with technology.

"Older adults," in this case, refers to those who are 60 years of age and over. This group is expected to grow in India, and by 2050, approximately 20% of the population will fall under this category. Tripathi et al. (2019) made this prediction. This cohort is a group that is prone to threats like phishing scams, financial fraud, identity theft, and also social engineering attacks due to increasing application of technology for self-service needs related to banking, healthcare, connecting, and entertainment.

Although cybercrime often targets older people, the great majority of cybercrime incidents go unreported (Button et al., 2009). One of the most important issues is the lack of reporting of cybercrime incidents, which is particularly evident in India because the infrastructure that deals with the problem is not complete and is underdeveloped, and there could be cultural issues that

impede reporting. It is important to determine why older people do not report the hacking incident in order to ensure that the right measures are being taken to improve the support services for victims.

This paper seeks to use the sociological approach to examine the relationship between the individual, the social, and the structural in the reporting of cybercrime against older people in India. This study critically discusses the recent empirical studies and theories that identify the processes that shape the creation of digital vulnerability. Moreover, the study seeks to identify the necessary steps to promote the concept of digital justice for older people in society. These steps include the need to promote educational initiatives, legal protection, and the development of supportive networks that specifically address the unique challenges faced by older people in the digital landscape.

Research has largely focused on the technical mechanisms of cybercrime or the cognitive declines associated with aging that lead to victimization. Nonetheless, there is a severe shortage of research examining the sociological barriers through an intersectional lens, particularly focusing on how gender, social class, and the cultural environment of India influence silence. This paper attempts to fill this void by shifting focus from personal responsibility to structural examination within the Indian reporting system.

RESEARCH OBJECTIVES

1. To identify the socio-cultural factors (stigma, shame, and self-identity) that prevent elderly Indians from reporting cybercrime.
2. To analyze the structural and institutional barriers within the Indian cybercrime reporting infrastructure.
3. To investigate how intersectional factors, such as gender and the urban-rural divide, compound digital vulnerability.
4. To propose evidence-based policy recommendations for enhancing digital justice and victim support.

THEORETICAL FRAMEWORK: UNDERSTANDING DIGITAL VULNERABILITY THROUGH A SOCIOLOGICAL LENS

The Social Construction of Digital Vulnerability

However, cyber vulnerability is not entirely a technological construct. It is a social construct that is related to the intersectionality of age, class, gender, education level, and digital capital. In terms of the concept of capital as proposed by Bourdieu, the concept of older adults' cyber vulnerability can be seen as a lack of digital capital, which is the knowledge and skills needed to safely and successfully navigate the online world (Ragnedda & Muschert, 2013).

Studies on the digital divide have acknowledged that access to technology is only the first level of inequality because it fails to consider other inequalities in terms of the ability to effectively capitalize on technology among different demographic groups. Greater disparities arise in such areas as digital skills, especially critical evaluation skills and the ability to identify and manage online risks (van Deursen & van Dijk, 2014). These differences for older adults are further heightened by cohort effects of having matured in an era where digital technologies were limited and by age-related changes that may impact information processing and decision making in digital spaces.

Routine Activities Theory and Cyber Victimization

RAT was first conceptualized by Cohen and Felson (1979) to explain the dynamics of conventional crime but has since been adapted to explain cybercrime victimization. According to the theory, a crime occurs when there is an intersection of three components: a motivated offender, a suitable target, and the absence of effective guardianship. In cyberspace, older adults may present suitable targets due to perceived wealth, limited levels of technological expertise, and naturally trusting personalities (Cross, 2016).

Research from India supports the fact that due to increased exposure of the elderly population to digital platforms for conducting financial transactions and participating in social media, the risks of cyber victimization have significantly increased (Tripathi et al., 2019). Greater exposure and reduced guardianship-that is, knowledge of using digital technologies-make it easier for people to be victimized. To develop strategies to prevent such incidents, one needs to understand how they occur. That means the way one uses the Internet would bring down the risks.

The Sociology of Reporting: Silence and Disclosure

The decision to report a crime is a social process influenced by various factors, including shame, stigma, perceived authority legitimacy, expected response, and social support systems. For victims of cybercrime who are older, additional barriers include generational attitudes towards seeking assistance, concerns about blame or being judged as incompetent and fears of losing independence if family members consider them incapable of handling their affairs (Goudriaan et al., 2006).

From a symbolic interactionist perspective, the meanings that elderly victims give to their victimization-whether they see themselves as deserving victims worthy of help or as careless individuals who should have been more careful-significantly influence reporting behavior. Disclosing cyber victimization within cultural contexts that correlate age with wisdom and capability may result in challenges to self-identity and social status; therefore, there are strong disincentives to reporting it.

METHODOLOGY

The current research is based on a qualitative synthesis framework that will critically review both theoretical concepts and empirical evidence available today. Such a methodology allows us to incorporate various sources into our analysis in order to understand fully the problem of cyber-victimization among the elderly population.

Research Design

The research uses thematic synthesis of secondary sources that have been extracted from peer-reviewed journal papers, institutional documents, which include reports of HelpAge India, and relevant case studies from the years 2019 to 2025.

Inclusion Criteria

The studies chosen for this review were selected by the application of the following criteria:

- (a) Elderly Indians, aged 60 above,
- (b) Cyber victimization, specifically hacking and online scams,
- (c) Reporting patterns with respect to cybercrimes.

Data Analysis

Thematic analysis was done to ensure that all patterns recurring in the data could be identified. The results obtained were categorized according to the three main dimensions namely (a) personal/cognitive barriers, (b) social/cultural barriers, and (c) structural/ institutional barriers.

FINDINGS

Recognition Gaps: The Invisible Crime

Older people normally do not report cases of cybercrime since they are not aware that it has happened to them. Cybercrimes normally involve sophisticated techniques of social engineering that make it very difficult to tell the real from the imaginary encounters (Kumar & Patel, 2025), and as a result, older people may end up thinking they are having real encounters rather than being victims of cybercrime. This is different from conventional crime since it leaves physical evidence behind. The study reveals that older people are not aware of the existence of cybercrime and thus do not even know they have been defrauded or that what has happened to them is a crime that needs to be reported.

There are a variety of reasons for this delay in acknowledgment. Firstly, the elderly know very little about basic cyber threats or how a hacker works. Without this knowledge framework, the elderly may think that the fake messages are genuine mistakes, misunderstandings, or bad business deals, but not planned criminal acts. Secondly, the reality is that many cybercrimes are just very complicated from a technical point of view, which makes it difficult for non-experts to know if someone is trying to harm them or not.

Some risky pre-fraud trends were also discovered among Indians, and these are reflective of poor threat detection capabilities. To exemplify this, Kumar and Patel (2025) showed that 18.4% of senior victims of cyber fraud have already shared their contact information online, and 51% have already engaged in activities that led to their victimization, like reacting to unsolicited messages and clicking on suspicious links and the like. These trends reveal that older individuals lack the critical thinking skills necessary to detect potential threats online.

Cyber threats are in continuous evolution, and that is one more factor that increases the recognition gap. Even the computer-savvy may not be able to recognize new fraud because scammers invent increasingly sophisticated methods to carry out their work. For elderly people who do not use digital technology very much, keeping up with new risks presents an enormous problem.

Thresholds of Disclosure and Internalized Ageing

Recent studies have identified that older adults, in particular those aged 75 years and over, are most likely to become crime victims again and thus lose more money overall compared to the younger ones (Button et al., 2009). Very disturbing results were yielded by this study. In situations when hackers manage to successfully target the older adult, then they place their names on "sucker lists" shared among other cybercrime fraudsters.

Repeated victimization begets a vicious cycle. First, a victim may lose faith in the use of digital technologies and, worse, in his own judgment. This could lead either to a complete halt of all digital activities-digital exclusion-or to further vulnerability as victims desperately attempt to recuperate their money through new schemes promising to do so. A 2025 study by Kumar and Patel showed that older people who had previously been scammed were later targeted by "recovery scams" promising to recover the money on their behalf for an upfront fee. Not reporting the first victimization makes this cycle worse in that it prohibits police from noticing trends, warning future victims, and stopping criminal activities. Being a victim repeatedly can also

be very traumatic and provide major detriments to your mental and physical health: social isolation, anxiety, depression-which puts you at an even more vulnerable state.

Structural Barriers and Institutional Barriers

Personal factors combine with large structural barriers in making it difficult for older persons in India to report cybercrime. Legal and regulatory mechanisms to combat cybercrime are still insufficient because the law is full of gaps, institutions cannot do enough, and mechanisms for victim support are inadequate (Chattopadhyay & Singh, 2024).

The Indian Cyber Crime Reporting Portal is a giant leap in terms of ease in reporting cybercrime, and it also had some flaws in terms of further proceedings, language, and ease of access for elders. The absurdity of a victim of cybercrime needing to be tech-savvy in order to report their victimization stems from their lack of knowledge about how to report their victimization.

In addition, police agencies are not trained to deal with both elder abuse and cyber victimization. Such a response could lead to victim-blaming and victim-minimizing, failing to address the vulnerability of the victim.

As reported by the study, police might simply not care for elderly victims because, instead of serious crimes that should be investigated, they think losses among the elderly are due to their carelessness.

Another major issue is the inadequacy of organized services aimed at supporting victims. In India, there are no organized mechanisms to extend financial counseling, psychological support, or assistance in criminal court matters to elderly victims. Whereas some countries have established special teams in order to address issues relating to fraud committed against the elderly. The absence of such support mechanisms decreases the possibility that a victim will report the incident and encourages him to deal with the after-effects himself.

Intersectional Vulnerabilities: Gender and Geography

It is not possible to comprehend how elderly people become victims of cybercrime and struggle to report crimes against them without considering structural injustices and the Intersectionality of their social identities. The level of exposure to cyber threats and access to methods of redress vary based on factors like gender, socioeconomic standing, caste, and whether or not a person resides in an urban or rural setting.

It is for this reason that the elderly women of India, being women and also older, are particularly vulnerable. Thumboo and Mukherjee's study illustrates how older women, compared to older men, are less likely to access the internet, be digitally literate, or use technology on their own. Lifelong patterns of inequality, including less schooling, less participation in the labor force, and cultural norms that perceive technology as a male domain, make women more likely to be excluded from the digital world.

Problems for older women victims of hacking continue when they actually try to report it. Patriarchal families might have difficulty making such financial decisions and filing complaints. Additionally, the gender-based expectations of shame and family honor might make it very challenging to talk about being a victim of financial loss or online exchanges which family members may consider inappropriate.

Socio-economic status also has a big effect on how much cybercrime is reported and how vulnerable people are. Rich older adults may be more likely to fall for clever financial scams that target wealthy people, but they also have more resources to help them function better and can

easily get legal help. On the other hand, older adults from lower-income families may come across fraud involving small-value transactions or those dealing with government benefits. Still, they do not have the money or social capital required to file formal complaints or address the system.

Another form of inequality is the difference between cities and rural places. While older people in cities generally face fewer problems in accessing the digital tools and infrastructure to report cybercrime, those in rural areas have more barriers, including slow internet connections, low levels of digital literacy, language barriers (as most resources for reporting cybercrimes are available in either Hindi or English), and distance from law enforcement agencies that can entertain cybercrime complaints.

DISCUSSION

The results from this research suggest that the "silence" observed among the elderly victims of cybercrimes in India is neither an act of omission nor a simple construct. Rather, it is a socio-constructed concept formed by the interaction of culture, structure, and institutions. In this regard, this section attempts to interpret these results using a sociological perspective.

The Symbolic Interactionism of Silence: Stigma and Identity

In symbolic interactionism terms, the act of reporting a crime involves performing one's social identity in public. In the case of the Indian socio-cultural environment, in which being older is equivalent to being wise and authoritative, having been a victim of a cybercrime and especially being duped by social engineering becomes an incredibly embarrassing experience. Our notions of recognition gap and threshold effect indicate that there is a cost-benefit evaluation performed by victims in relation to their social identity. Embarrassment and shame are not only matters of personal perception but reactions to a broader society-oriented perception of "ageism," according to which old people having problems with using technologies are perceived as cognitively diminished instead of being recognized as targets of advanced crime schemes. Therefore, choosing to stay silent allows victims to retain control of their own lives and avoid family intervention and limitations concerning their finances and technological access.

Digital Capital and the Fallacy of "Up skilling"

However, current policy solutions in India seem more preoccupied with "upskilling" which is, in effect, putting the responsibility on the individual rather than on structural mechanisms. Based on the idea of digital capital discussed by Bourdieu, it can be argued that vulnerability is built into the system. It is important to understand that digital capital goes beyond mere skill; it refers to "habitus" – the intuition needed to function online safely (Ragnedda & Muschert, 2013).

However, this emphasis on education misses the point in terms of routine activities theory. Elderly people may become "suitable targets" due to their wealth, but the absence of effective "guardianship" in the digital environment means they will be easy to manipulate. In addition, the "sucker list" proves that repeat victimization is common among the elderly because once a person is singled out for manipulation, he or she will keep falling into a trap until there is institutional guardianship to prevent it.

The "Dark Figure" of Crime and Policy Invisibility

One of the most significant consequences of under-reporting is the increasing size of the "dark figure of crime," which refers to the difference between real incidents of victimization and reported statistics. The absence of concrete statistics in this regard brings about something that can be termed as "policy invisibility." Due to the non-existent statistics regarding elderly victims of cyber-

crimes in India's Cyber Crime Reporting Portal, such victimization becomes an issue of least priority for the national government's cybersecurity policy-making. This, in turn, gives rise to a self-fulfilling prophecy because the lack of resources makes the entire process of reporting difficult and futile for the victim, leading to less reporting in the future.

CONCLUSION

There are various reasons for the fact that the elderly population of India do not feel they are victims of cybercrime. These reasons vary from social aspects to structural issues and personal knowledge. This sociological research proves that the digital threat to the elderly population can be due to various reasons related to the age factor, the sociocultural context, and the failure of society as a whole rather than the incompetence of the elderly population to deal with technology. A majority of the cases of cybercrime against the elderly population do not come into the hands of the authorities or the support system due to various reasons, including structural issues, a lower willingness to come forward with the issues, the repetition of the pattern of victimization, and the recognition of the issues. This unfortunate phenomenon affects the entire chain of the victimized population to the entire population of the society as a whole.

It implies that instead of concentrating on particular strategies to assist the elderly population to improve their ability to deal with technology, we have to improve the reporting of crimes, make the response to crimes smoother, and eliminate the problems to provide justice to all individuals. There are many digitally vulnerable groups, and a particular emphasis has to be placed on the elderly female population, the rural population, and the poor due to the compounded problems they are experiencing because of the weakness in two areas.

India is becoming more digital, and for the country to be socially inclusive and equitable, it is important that the elderly are able to use digital places confidently and safely. It is important that the rapid development of digital technologies should not lead to the marginalization or danger of vulnerable users. Instead, the rapid development of digital technologies presents an opportunity for the development of digital spaces that are safer, more inclusive, and more accessible for the elderly, especially those who may find it difficult to adjust to new technologies.

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A Study on the Women Workforce in relation to Societal and Personal Factors

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ABSTRACT

The study investigates the elements of society or personal factors which influence women's labour market activity. While females are starting to establish more in this work, traditional responsibilities and individual commitments might still have a major impact on many of the female office holders. A descriptive survey type of data collection technique was used. A close-end survey was conducted on 40 active working ladies from all domains of professional areas. The data analysis revealed that marital status has a big impact on the professional way of life, personal care habits and this in turn affects their professional path. Non-public factors such as schooling, self-esteem, and family support are stronger than external forces but t-test proposed no substantial statistical difference between the two. The analysis revealed the presence of empowering plans, adjustable working systems and provision of enablement programmes were the more predominant contributors for a harmonious work-place for women and are thus indicators for a synchronized consideration that must be extended between families, business places and policy makers to better support women's livelihood and life reconciliation at work.

Key Words: Women workforce, Societal Factors, Personal Factors, Gender Equality, Work- Life Balance

INTRODUCTION

Women's role in the labor force is a key indicator of social and economic development. When women enter the workforce, stay in it, and advance in their careers, the benefits are felt beyond the individual to their families, the workplace, and society as a whole. Also, at the same time women's employment is not determined by education or will to work. Issues of health, confidence, family support, and marital status play a role along with social expectations, work place environment, and culture which in turn play a role in whether women do join the workforce and stay in it. In India these issues are very much at play as many women balance paid work with caregiving, domestic responsibilities, and social prescriptions of family roles. For some women supportive homes, flexible work arrangements and access to resources which foster growth do in fact, enable them to have continuous careers. But for others, what we see is that social pressure, lack of institutional support, and unfair workplace practices which favor men over women create barriers to entry and success. Thus, it is a mistake to see women's labour force participation as a choice made in isolation; it is very much a product of the social structure which women are a part of and which in turn shapes that choice.

The study conducted in 2026 examined the age-period-cohort effects and found that the prime reproductive age of women largely determines their labor force participation, with marriage and childbearing events significantly influencing women's working life (Ali, 2026). Similarly,

Pavithra & Prabha (2025) emphasized the deeply ingrained patriarchal structures and gender socialization continue to restrict women's access to economic opportunities, confining them to lower-paying, lower-status roles and limiting their participation in high-skill and leadership positions. This research demonstrates that women's employment issues extend far beyond individual choice or education level and are substantially determined by the broader social environment in which women live and work. Multiple 2024 studies provide crucial insights into current trends. An interstate analysis revealed significant regional variations in female labor force participation rates, showing a concerning decline from higher levels in 2004-2005 to as low as 17.5% by 2017-2018 (Singh & Meher, 2024). The jobless growth of the Indian economy has impacted women more severely than men, as the job market appears able to absorb growing numbers of male workers but not female workers (Singh & Meher, 2024).

The choice of a woman to join and stay in employment was greatly influenced by social factors. The best jobs for women were typically determined by social views, gender stereotypes, and beliefs. Most cultures encouraged women to prioritise their family obligations and duties over their job goals, which led to disruptions in career patterns or little to no career advancement (Pegu, 2015). Similarly, Choudhary (2024) studied in Haryana that age, social group, and marital status play substantial roles in women's rural workforce participation. Deshpande & Kabeer (2024) revealed that women with a family history of working women are more likely to participate in paid work, suggesting that family traditions either support or constrain women's labor market engagement. Many studies have reported a similar effect of gender roles and prevalent social structures in the participation of women workforce. This indicates that women's employment is a complex issue that extends beyond individual choice or education level. An urban-based study from the same year found that marriage and family duties decrease women's likelihood of employment, while vocational skills increase the probability of women entering the labor force (Mukherjee & Agarwal, 2023). The research demonstrates that professional and vocational skills increase women's employment probability, particularly in urban settings.

But research from 2021 challenged the prevailing narratives about women's workforce participation. It stated that the decline in the female labor force participation cannot be attributed solely to voluntary withdrawal due to increased household income, but rather reflects demand-side constraints and unavailability of steady gainful employment (Deshpande & Singh, 2021). Along with the prevalent social structures and factors; Education, family support, health, and financial status were commonly occurring individual factors that significantly impacted women's employment in addition to the social constraints. The foundation for determining professional growth, pay, and career opportunities was education. Higher educational attainment was directly linked to better employment opportunities, higher pay, and easier entry into leadership roles. However, socioeconomic disparities, gender discrimination, and early marriage continued to be obstacles for most women in obtaining high-quality education, particularly in developing countries (Mehtap et al., 2016). In places with limited educational options, women were also encouraged to pursue conventional occupations and were not motivated to seek professional careers or higher education. The involvement of women in the workforce was also strongly influenced by their health and well-being. Career continuity was impacted by physical and mental health conditions, including reproductive health concerns, maternal health complications, and limited access to high-quality healthcare. Career disruptions were common during pregnancy, childbirth, and the postpartum period; in certain places, inadequate maternity leave regulations exacerbated this issue. Women who lacked access to quality childcare facilities found it difficult to return to work, forcing them to compromise their careers. Because women frequently

multitasked at work and at home, stress and burnout were major concerns, making work-life balance a persistent challenge.

All the above-mentioned research findings clearly indicate the possible factors affecting the participation and involvement of women in varied professional areas. But, there is a dearth of studies which look up to both personal and social factors together, especially with respect to marital status and work experience. Keeping the dearth of studies in mind and the need to understand the present workforce dynamics, the present research was conducted to study the major factors influencing the participation of the women workforce i.e. personal and social factors.

OBJECTIVE OF THE STUDY

The following objectives were studied in the present research:

1. To study the status of the women workforce with respect to marital status and work experience.
2. To study the status of the women workforce with respect to personal factors and societal factors.
3. To compare the effect of societal factors and personal factors in relation to the women workforce.

METHODOLOGY

a. Research Design

The quantitative research method using descriptive survey design was used for this research. This research seeks to find out what societal and personal factors influence women in the workforce.

b. Population and Sample

The target population was women currently/previously working/worked in the field of education, health, administrative work, private/public jobs, and entrepreneurship. The target age group was from 18-40. The distribution of the sample with respect to the sectors is given below:

Table 1: Distribution of the Sample in present research

Sector	Number of Women
Teaching and Education (Schools, Colleges, NGOs)	12
Corporate Sector (Aon, WNS, Private Companies)	8
Medical and Healthcare (Hospitals, Health Sector)	4
Banking and Finance	3
IT and Data Analysis	4
Government Sector (PSUs, Govt. Institutions)	3
FMCG and Manufacturing	2
Aerospace	1
Research and Development	2
Media and Communication	1
Total	40

c. Sampling Technique

40 women from age group 18-40 were purposefully selected from the population of women working/worked in the field of education, health, administrative work, private/public jobs, and entrepreneurship from urban and semi-urban locations of Delhi/NCR. The Purposive sampling technique was used to make sure the all possible representation of women who would be in

different personal and societal conditions.

The small number of sample taken for research is due to the unwillingness of women to respond and provide the necessary responses.

d. Tool

The self-constructed questionnaire (five-point Likert's Scale) with two dimensions, Personal Factors and Societal Factors was employed in the current research. The validity of the questionnaire was established using face and Scale-Level Content Validity Index where S-CVI= 0.78. The value of Cronbach's Alpha was found to be 0.76, showing the acceptable level of reliability of the self-constructed tool.

e. Data Analysis Process

The collected data were analyzed using Descriptive Statistics, namely mean and standard deviation and Inferential Statistics; t-test which was represented using graphs and calculation of percentages.

DATA ANALYSIS AND INTERPRETATION

By using the above-stated statistical techniques, the data were analyzed objective-wise and presented below:

a. *Objective 1: To study the status of women workforce with respect to marital status and work experience.*

To study the status of women workforce with respect to the marital status and work experience, mean value and standard deviation values were calculated. Based on the values, the box-plot was used which indicates that married respondents exhibit higher median values and relatively consistent variability, whereas unmarried respondents demonstrate lower scores with greater variability. This means the married respondents have more years of work experience than their unmarried counterparts. This may be due to the inclination of women towards their profession/career after getting married and fulfilling all major family responsibilities. The findings were supported by the study conducted by Mukherjee and Agarwal (2023) in an urban setting, which reported that marriage, family responsibilities, the type of family system, and career breaks do in fact play a role in women's likelihood of work and continuity of that work.



Graph 1: Box-plot representing distribution of scores among married and unmarried respondents

b. Objective 2: To study the status of women workforce with respect to personal factor and societal factor.

The mean scores of the responses obtained from women indicate a notable difference in the factors influencing women's workforce participation. The mean score for personal factors was 48.25 which was found to be significantly higher than the mean score for societal factors which had a mean score value as 31.75. This suggests that personal factors exert more influence on women's engagement in their professional roles than external social structures.

This means that women are more affected by what is going on within themselves, their education, health, family support and self-confidence than by what the outside social structure is presenting to them as options in professional growth.

The obtained result is in agreement with the World Development study (2024), which reported requirement of women as the primary doers of domestic chores as the main issue of decline in the women in workforce. The similar findings were reported by the Time Use Survey study (2020) wherein the issue of the double play of unpaid domestic and caregiving roles is an issue which women in rural and urban households face in their professional growth.

c. Objective 3: To compare the effect of societal factor and personal factor in relation to women workforce.

To statistically compare the effect of personal as well as social factors for women's work-force participation, t-test was conducted. The analysis gave a *t-value* of 0.307 and a *p-value* of 0.787 at 0.05 level of significance. This value led to the acceptance of null hypothesis which means there is no significant difference between the effect of personal and societal factors in relation to the participation of women in professional roles.

The findings obtained supports previous research indicating that women's participation in the Indian labour force is influenced by both their domestic duties, including household tasks and child rearing (e.g. child care) as well as broader social rules and structures. More specifically, these two factors can have an impact on a woman's ability to find work (for example, social norms dictate that women will first look after the needs of the family and domestic responsibilities ahead of her career), which places great limitations on her ability to work and to pursue professional opportunities. The interaction of cultural and personal obligations establishes significant barriers for women in their efforts to pursue careers in India.

CONCLUSION

This study engaged with the many complexities of women's participation in the workforce especially as it relates to the country of India. Specifically, the study examined how personal and societal factors influence women's decisions regarding work and ultimately their longer career engagement. In that regard, the study also clearly identifies that personal factors, such as education, confidence people support, health- both physical and mental have a greater impact on women's ability and willingness to work than social expectations. Though still relevant, social factors, including norms or standards, cultural demands, and discrimination exist, but their impact on the confines of individual factors are limited. The buffering of social factors is enabled by either personal factors or personal empowerment or both. Many women effectively mitigated the impact of social factors on their career progression when they developed solid personal foundations in their lives and used strong support of family, friends, and coworkers. The study reveals a significant connection between marital status and work experience as married women perceived their ability to transition back into work and retain long-serving work roles easier once their peak family obligations were managed; unmarried women, on the other hand, wrestle between societal

expectations regarding their obligations of marriage, which may have disrupted or delayed career trajectories.

Statistically, the exploratory analysis illustrates that personal and societal factors are distinct, interdependent, and interact in many ways reinforcing and disrupting one another for women, and are fulfilled by distinct yet responsive measures. Their interaction also reinforces the need to view women's employment results using a dual lens that integrates the socio- cultural context of placement with the agency of change in the workforce. Because the study brings together empirical data with a thematic analysis, the implications that emerge add to current discussions regarding gender equity and workforce participation. It reiterates the fact that individual interventions disconnected from a coherent systemic process cannot result in transformational change, but that a radical approach to transforming the work environment through empowerment, education, and self-awareness, as well as a structural dismantling of mindsets and barriers associated with women's employment and promotion needs to happen.

In conclusion, to increase women's participation in the workforce, we would need to be attentive not just to policies and awareness, but the importance of a cultural change that recognizes women's choices and aspirations, and enables equitable shared responsibility in work and home. Our goal needs to reflect being fully inclusive and equitable of all working women.

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Role of Generative AI in Academic Writing – A Boon or a Threat?

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ABSTRACT

The rapid evolution of Generative Artificial Intelligence (GenAI) has dramatized the academic writing landscape, where different issues for pedagogical, ethical, and practical spheres are confronted. After a thorough investigation of the matter, the article explains how GenAI could positively influence the academic world as it provides students with a quicker writing process, assists students from non-native language backgrounds, encourages creative thinking, and broadens academic inclusiveness. On the other hand, it is a debate that, to some extent, problems of academic honesty, plagiarism risks, vague authorship notions, cognitive offloading, ethical areas, and the disparity of the advanced AI tools access are the issues that have been raised. This article does not consider GenAI as a good or bad thing, but rather the consequences of this technology depend on users who are knowledgeable and well-governed by institutions. The paper concludes with the thought that the responsible use of GenAI enabled by clear policy provisions, wide AI literacy, and assessment reforms compatible with ethics being not only the main condition for the survival of the fundamental tenets of academic integrity but also the core prerequisite for allowing real academic practice innovation.

Keywords: Artificial Intelligence, Generative AI, Academic Writing, Academic Integrity, AI Ethics, Higher Education

INTRODUCTION

The rise of GenAI is a big deal not only globally, but also changes the face of academic writing and many more fields. GenAI powered by next-generation language models, is an innovative tech, which in a very user-friendly way can create a practically new text from just one user prompt preserving the same line of thought. This is a big step in the academic writing process like the generation of new ideas, making a draft, or editing. At the same time, though, it brings a huge amount of complicated problems that are in dire need of a critical check.

Within the scope of educational institutions, there are numerous advantages of introducing GenAI devices in writing. They can help to make the beginning of a text smoother, clarify the ideas in one's mind and amend the writing with a greater appeal and professional touch. GenAI can supply language and structural support to the students and researchers that clarifies not only the content but also the connection of ideas in their texts. Moreover, it can foster the academic community to become much more equitable, whereby people with language barriers or writing difficulties will get the same level of assistance.

On the other side, the integration of GenAI in schools and universities community poses some issues. As the occurrence of its application is becoming a daily practice, this situation leads to critical questions about the character, the source, and the development of the necessary skills where especially critical thinking and independent analysis are taken into consideration. The straightforward manner in which GenAI does the writing tasks might result in a situation where the tool is overused thus students disengaging from the learning activities and even academic integrity violations may happen. In essence, GenAI goes beyond the bounds of its functionality. For instance, it questions the age-old idea of a scholar, which results in educators, institutions, and policymakers not only reconsidering the way academic work is done but also how it is evaluated and credited. One side of the story is that GenAI can be a tool that leads to freely

available academic support for everyone, while the other side is that if used uncarefully, it can still be a silent trap of superficially going through the content and faking the engagement.

This research-article aims to augment the ongoing debate regarding the role of AI in education and research. Its main goal is to look into the bright sides and the ethical, teaching, and practical issues of GenAI presence in academic writing. By discussing these issues, the paper is meant to provide arguments and research outcomes that can be a source of institutional policies development as well as the means of carrying out the GenAI tools' usage not only in a responsible way but also in a fair and efficient manner in tertiary education. In fact, the ultimate purpose of such inventions is not to remove the core intellectual growth but to make it easier.

RESEARCH QUESTIONS

This research paper is the exploration of the Generative AI role in academic writing, ascertaining whether it is a source of help or a threatening agent to the academic community. We will, in fact, confirm the presence of the following research questions:

1. How can the use of generative AI to facilitate academic writing create positive impacts in the learning process and research activities?
2. What are the major issues/concerns and the possible ethical dilemmas that could be raised if GenAI tools were used in academic writing?
3. What measures can academic institutions take to keep a harmony between innovation and honesty as they progressively allow the use of GenAI for writing?

We interrogate these questions to present an exhaustive treatise on the influence of GenAI on academic writing, tipping the scale on its bright side as well as pointing out the issues that it raises.

LITERATURE REVIEW

Generative AI has become a powerful tool in academic writing that can bring a lot of benefits to students and researchers. For students, generative AI promotes personalized learning, as it is able to identify the learner's style and thus provide a better educational experience (Gasaymeh et al., 2024). Also, it is a multifunctional writing assistant, a virtual tutor, and a digital peer, which apart from facilitating the writing process and enhancing the writing performance, also, is very helpful in the affective domain (Kim et al., 2024). Students view generative AI as a tool for coming up with new ideas, elevating the level of innovation, and changing the ways of teaching so that the different learning preferences can be taken into account (Gasaymeh et al., 2024; Alali et al., 2024).

Generative AI is an extremely powerful instrument that can be used by researchers to significantly improve their writing productivity and quality. The technology offers very detailed help in the areas of writing, revising, and organization, thus, it removes the obstacles that are inherent in academic writing, makes the writing process a discovery, and at the same time, it encourages diversity in research (Lin, 2023). The AI tools in question are especially good at the preparation of structured abstracts and manuscript sections, thus, facilitating the whole process and time-saving (Shopovski, 2024). In addition to that, AI-powered tools such as ChatGPT can be used in discovering the relevant literature and summarizing the research, thus, helping make the academic writing more clear and focused (Semrl et al., 2023).

They should also be prepared for the fact that AI might raise some issues. However, on a few occasions, these devices can also produce misleading or entirely made-up content or citations, so there is a need for strict oversight to be able to maintain a high level of integrity and trust in the academic community (Semrl et al., 2023; Gasaymeh et al., 2024). In fact, the main point of disclosing the usage of AI is to uphold the ethical standards and facilitate the peer-review process (Tang et al., 2023). Therefore, the use of generative AI for academic purposes

combined with the thoughtful, ethical intervention of humans could not only be a powerful educational tool but also a valuable research partner (Kong et al., 2024; Nguyen et al., 2024). Generative AI (GenAI) tools have been implemented in academic writing, which has led to the emergence of a wide range of ethical issues and concerns related to this practice. One of the most prominent issues that integrity in academia could be is. The technologies in question are definitely able to plagiarize as well as fabricate instances of academic misconduct because AI-generated papers may not have the correct citations thus, copyright and originality issues may be the ones that will arise (Taiye et al., 2024; Kim, 2024; Rabbianty et al., 2023; Eke, 2023).

The issues of authorship and the trustworthiness of academic works are among the topics that have been discussed. In particular, AI technologies can make the identification of the author to be less clear. As a result, the problem of how to keep the academic nature of the contributions arises. The case is about setting up strict rules under which AI is not allowed to take over the intellectual work of human authors (Rabbianty et al., 2023). Besides, problems related to equity and access are very serious. The digital divide may increase inequalities that have been around for a long time. For example, some students or institutions may not be able to access advanced AI technologies as others and thus, an academic environment that is unequal will be created (Francis et al., 2025). As to the environmental impact of AI, the issue of huge computational power required for large language models is raised and therefore their carbon footprint is increased. The problem thus requires a careful weighing of the benefits that AI can bring against the environmental costs (Francis et al., 2025).

The implementation of GenAI in a responsible manner within an academic community, first of all, mandates comprehensive ethical considerations and the establishment of regulatory frameworks. In this regard, educational institutions are recommended to carry out AI literacy programs, set up a code of conduct for the use of technology, and change assessment formats to encourage students' critical thinking and creativity. The measures mentioned above are not only the conditions for the fullest use of GenAI's potential but also they are necessary for academic integrity to exist and inclusivity to be facilitated in education (Taiye et al., 2024; Uddin and Abu, 2024).

Educational institutions should be leaders in taking several decisive steps to ensure that the use of Generative AI (GenAI) in writing and other educational activities is both creative and preserves integrity. The first and foremost concern ought to be the creation of ethical frameworks and policies that dictate the application of GenAI. Apart from aiding the preservation of academic integrity, these frameworks are expected to be very helpful in ensuring that the educational values such as fairness, among others, are upheld. Universities and colleges will then have the opportunity to not only implement these policies and thus set the standards that determine the proper use of GenAI but also, for example, by using characteristics such as equity, inclusion, and accountability as the pillars of the practice (Francis et al., 2025; Foltynnek et al., 2023). Through its directives, the European Network for Academic Integrity (ENAI), is already making substantial moves towards equipping the concerned parties with the skills and the knowledge necessary for the ethical use of GenAI (Foltynnek et al., 2023). Next, schools should prioritize the creation of GenAI literacy programs tailored specifically for students and teachers to meet their needs. The programs must also disclose the correct usage of GenAI functionalities and, importantly, disclose its limitations while at the same time imparting critical AI literacy skills. This method will enable all the participants in the educational process to not only accept without question AI-generated outcomes but also to critically evaluate and even question them. As a result, the educational community will be promoting not only AI literacy but also the empowerment of students and teachers to be able to use AI in a responsible and creative way (Taiye et al., 2024; Rudolph et al., 2024).

It is extremely important to amend the examination plans radically so that they effectively demonstrate critical thinking and creativity as their leading features. Educational institutions, by simply eliminating mundane tasks from tests and implementing assessment methods that challenge students to deepen their engagement with both the material and AI tools, can be assured that AI serves as a potential enhancer of human capabilities rather than a replacer (Francis et al., 2025). At the same time, it shows the necessity of pedagogical strategies' development, which encourages the collaboration of humans and AI, at the same time, students' creativity and freedom of expression being preserved (Info and Potter, 2024; Kim et al., 2024). Furthermore, teacher-student communication and the collaboration with other stakeholders can be the main reasons for the fast propagation of GenAI-appointed learning practices. By involving the numerous stakeholder perspectives not only in the designing but also in the implementation of GenAI programs, understanding, and academic integrity issues as well as operational difficulties can be addressed effectively, thus resulting in both efficient and ethically acceptable tools (Foltynek et al., 2023; Taiye et al., 2024). Besides that, organizations should take care of ethical issues that are far beyond the risks of biases in AI systems, possible digital divides, and the environmental impact of AI technologies. These factors need to be constantly taken into account to ensure that GenAI integration does not deepen the existing inequalities and also that no new biases are introduced in educational practices (Francis et al., 2025; Blonder and Feldman-Maggor, 2024).

GENERATIVE AI AS A BOON

Generative AI or GenAI for short, is, without a doubt, one of the major technological advancements that surfaced within the last few years. Its application in academic writing is very far from the traditional way and accordingly, students, researchers, and educators are not only finding new ways to produce but also to share knowledge. Though the argument that GenAI might be used improperly is still alive, it is quite significant to acknowledge that GenAI exerts a lot of positive influences as well. If you like, just one of them, it raises the standard of the work, it is different kinds of people, who had never thought of that, now can be involved and academic resources become equally accessible to all. The next bullet points serve as examples of how GenAI continues to reshape academic writing and related fields in a gradual manner:

- **Enhanced productivity:** Generative AI changes the writing process to a great extent by providing various intelligent suggestions, content outlines, paraphrasing, summarization, and grammar checking. So, it helps users not only in coming up with new ideas but also in writing the content and even polishing the argument. The handing over of such work which was traditionally done by hand to a machine makes it less time-consuming and thus, researchers' and students' time is freed to be able to engage in critical thinking, originality, and conceptual clarity. Consequently, the output achieved is of both larger volume and better quality, which, especially, is of great significance in academic environments under time pressure.
- **Support for Non-Native English Speakers:** Language proficiency is still a significant barrier that hinders academic writing. Out of different generative AI tools, ChatGPT, Grammarly, and Trinko are three such applications that can enhance the language proficiency of a non-native English speaker, which a person will be able to break the barrier thereby. Besides error correction, the instruments also offer corrections that sound not only more scholarly and contextually appropriate but also more effective in the writers' communication of their ideas. Hence these writers get to be not only more articulate but also more able to compete in the global academic arena.
- **Academic Assistance and Creativity:** Generative AI can be turned into a student's and a scholar's brainpower and alongside them can facilitate ideation, generation of thesis

statements, sharpening of arguments, and provision of citations. Besides this, the technology can be a great creative helper as it can suggest different viewpoints, give ideas from various disciplines and come up with new metaphors. In essence, creative capabilities that AI has opened for the sphere of academic writing, in reality, make it the next step in the evolution of artistic thought in general, i.e., behind the scenes, AI becomes an indispensable agent in the confidentiality of the faculty of ideas and the furtherance of academic research.

- **Improved Access to Knowledge Resources:** In-depth content presentation, briefings and thematic analysis from large scientific and research repositories irrespective of the time needed - all this is now possible due to AI-powered instruments that can fast-track 'access to knowledge' agenda to meet the needs of students from educationally and infrastructurally deprived backgrounds or geographies. The spread of such a trend also brings in scholarly material a broad audience of learners and researchers with whom otherwise deep engagement with academic discourse would be impossible.
- **Facilitating Academic Inclusivity:** For instance, generative AI could be incredibly effective in facilitating a culture of education that values diversity and is inclusive just by providing different ways of learning and catering to the various needs of individuals. Students who cannot easily understand a concept or have trouble due to language-based issues might, through this technology, not only become better in academic writing but also increase their learning self-confidence. This new tool is like a leveling device which expands the repertoire of the academic community, the people who would have been the least visible, hence giving them a chance to engage in the discussion with the necessary skills and the confidence.

GENERATIVE AI AS A THREAT

Generative AI, from one view, can enhance academic works in many ways; however, such a technological device is connected with a large number of worries. As educational establishments try to keep honesty and improve the quality of education, they begin to doubt the positive aspect of Generative AI only. The points below demonstrate that the misuse or unawareness of Generative AI not only can be a threat to the quality of academic writing but also to the educational ecosystem that is going to develop further:

- **Academic Dishonesty and Plagiarism:** One of the biggest causes that led to worries about the honesty of education was the invention of generative AI that could write whole papers, works, or research falsified by machines but still look original. In the case of a student, an AI-generated text could be the student's own work which he/she submits to the teacher. The closeness of the AI-assisted plagiarism is the reason why it is very difficult to uphold academic standards and to spot academic dishonesty.
- **Erosion of Critical Thinking:** Without proper use of AI technologies and tools, there can be a decrease in the level of intelligence. For instance, if a student repeatedly uses AI to generate ideas, analyze and draw conclusions, then that student is less likely to develop critical thinking skills and will find it difficult to solve problems independently. In addition, there is a risk that the creative and reflective aspects of academic writing, which are the main means of the students' intellectual growth and therefore less cognitive engagement is occurring, may be replaced by fast, automated results.
- **Ethical and Legal Dilemmas:** The use of GenAI for research raises a host of tricky ethical questions, including: "Who owns the rights to the GenAI output?" or "Is it ethically correct to use AI to generate academic papers without disclosing it?". There could be a case, for instance, where a research project is based only on some parts of the sources that are biased and, consequently, the trustworthiness of the research is

compromised. The absence of very clear rules and guidelines may lead to a situation of confusion and mistakes, especially in the case of scholarly tests and publications.

- **Lack of Transparency and Accountability:** Generative AI mechanisms are commonly referred to as "black boxes", which indicates that these machines do not show the way they obtain certain results, but only give the results themselves. The lack of explanation in this regard causes issues of checking the source, determining the level of trust, and assigning the responsibility in case of mistakes, wrong information or biased content. When talking about scholarly writing that is highly dependent on giving proper credit and being precise, the insufficiency of the disclosure is among the factors that contribute to the decline of trust in AI-assisted outputs.
- **Institutional Challenges:** The rapid integration of GenAI in the academic world is, unfortunately, the reason that many educational institutions are losing their heads. The root of the trouble is the faculty development deficit, the unestablished policies, and the inadequate technological infrastructure. Simply put, schools and colleges have to deal with the problems of recognizing AI-generated works, changing the content of their subjects, and figuring out fair usage rules. However, the lack of sufficient guidance and control measures may cause the quality of education to become unstable.

A BALANCED PERSPECTIVE

The emergence of generative AI in academic composition has triggered a debate that is a mix of both emotions - excitement and caution. As a matter of fact, it is a great enhancement of productivity and that is exactly the point where students and researchers are in need of help in drafting, editing, and organizing their academic work in a more efficient way. Non-native English speakers are the ones who are mostly benefited by this technology, which gives them the power to present their ideas in a more clear and confident manner.

Generative AI helps the creative process as well as academic research by bringing new viewpoints, generating alternative arguments, and by providing assistance in the ideation process. Besides that, it makes the academic world more accessible through the ability to summarize difficult and long materials which can then be read quickly and easily. Hence, it is an opening to academic inclusiveness for different types of learners. On the other side of the coin, these benefits should be taken into consideration together with concerns of equal weight and consistency. AI's great ability to produce an entire academic paper discloses plagiarism and academic dishonesty as the main problems. It is possible that students will be tempted to avoid the learning process taking the easy way and thus, producing less and doing more fraud. Another problem with such tools is that by overusing them, students lose critical thinking and original thought, as they become more passive consumers of knowledge rather than active creators. What is more, there are ethical and legal questions arising from the issue of content ownership, authorship, and the correctness of the information generated by AI.

Additionally, the transparency problem and the explanation issue in case the units work and generate their answers deepen the accountability problem. Schools have a similar problem with this change as they can hardly adjust their testing structures, invent efficient identification systems, and train instructors and students for the moral use of AI. So, a balanced perspective shows that Generative AI is neither entirely good nor entirely bad. It is a very powerful tool the importance of which depends on the way a responsible and thoughtful use is made. The point should not be made of rejecting AI outright or accepting it uncritically, but rather of its integration into education together with a proper ethical code, digital literacy instruction, and updated institutional regulations. This is the only way we can be sure that AI will be a valuable companion on the academic journey, a cause of enrichment, and not a factor of undermining the pursuit of knowledge.

CONCLUSION

Generative Artificial Intelligence (AI) is one of the most sensational hi-tech breakthroughs to come up in the past decade and has revolutionized the way academic works operate. In this review article, the literature explored, and related issues have shown that GenAI can significantly change the work output of students, researchers, educators, improve language quality, and even increase creativity levels and provide academic knowledge without any limitations. Inarguably, the application of GenAI tools has become a major victory to many learners, especially non-native English speakers and students with a weak academic background, and thus, making academic participation more inclusive and fair.

On the other hand, the fast-paced of GenAI adoption in academic circles has caused worries about maintaining academic integrity, authorship, critical thinking, ethical use, and institution preparedness. To broader the gap between humans and AI, the machine is designed in a way that the AI-generated articles appear to be free of errors and arranged perfectly thus, making it impossible to detect by a human which in turn increases plagiarism, over-dependence, misinformation, and authors' rights as the major issues that accompany the technology in question. The absence of well-defined regulations, ethical principles, AI skills, and strong safeguards provides room for these gadgets to disappoint and diminish the indispensable scholarly values that constitute the nucleus of the education system.

Thus, Generative AI should neither be considered a mere blessing or a threat to academic writing but a powerful instrument whose outcome depends on the degree of responsibility with which it is acknowledged, governed, and used. Some of the initiatives that schools, colleges, and universities need to take leadership and implement under their leadership are ethics, assessment redesign, AI literacy, and the maintenance of the academic environment's fairness and transparency. If GenAI is applied in the right way, it is an excellent tool to supplement human intelligence and accomplish academic tasks at a very fast pace, but at the same time, it can shake the academic foundations if used recklessly. Eventually, the intention is not to impede technological advancement, but to allow it in a manner that is compatible with academic integrity, human creativity, and learning opportunities.

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ITEP Curriculum Implementation and Student Perceptions: An Institutional Case Study

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ABSTRACT

The Integrated Teacher Education Programme (ITEP) under the aegis of India's National Education Policy (NEP) 2020, a remarkable shift in teacher education to integrated, multidisciplinary, practical based and competence-based teacher preparation. The National Education Policy 2020 highlights, "Teacher preparation is an activity that requires multidisciplinary perspectives and knowledge, formation of dispositions and values, and development of practice under the best mentors" (NEP, 2020). ITEP merge the domain specific knowledge to pedagogical knowledge. This institutional case study explores the implementation of the ITEP curriculum at a selected state university to examine students' perceptions using a self-constructed five-point Attitude scale. This study employing a methodology which included descriptive survey design, data were collected from ITEP students in academic session 2023 to 2026 using Attitude scale where scoring scheme i.e. 5 = Strongly Agree to 1 = Strongly Disagree for the positive statement employed. The findings highlight a high reliability, highly positive attitude of students of ITEP toward the curriculum awareness and understanding, curriculum design and relevance, pedagogical practices, skill and competency development. However, it is reported that moderate concerns are there related to workload intensity on the students and infrastructural support. The study also shows the important role of institutional readiness implementing the policy level curriculum reforms into practice to smooth running of teacher education program. The findings also contribute strong evidence to the emerging literature on ITEP and offer insights for strengthening higher education institutions implementing large-scale teacher education reforms.

Keywords: ITEP, Curriculum Implementation, Student perception, NEP 2020, Higher Education

INTRODUCTION

In the 21st century the transformation of Higher education systems across the world are undergoing in response to changing societal needs, technological advancement, and demands for quality education, equity and Inclusive classroom. Education considered as a cornerstone of a progressive nation. Education has shifted from conventional or traditional way to teaching learning process to innovative, joyful and engaging way. For the national growth, teachers should be competence, skilled and knowledgeable, this should only be possible when the teacher education program trained the teacher trainees. Teacher education, as a vital component of higher education, that emphasized the integration of theory and practice, interdisciplinary learning and provides professional competence (Darling-Hammond, 2017). The National Education Policy, 2020 represents a transformative vision for Viksit Bharat in the direction of making nation '*Vishvaguru*', advocating learner centric, holistic, multidisciplinary, innovative and flexible learning approach. It recognises the traditional theory-based teacher preparation has a major concern and so proposed the four-year major dual degree multidisciplinary program, it is a game changer and one of the major reforms of NEP 2020. Integrated Teacher

Education Programme (ITEP) is now the future of teacher education to ensure proficient, skilled and competent teacher prepared (Bhattacharyya, 2025).

ITEP integrates the disciplinary knowledge, practical training pedagogical theory with experiential learning, values within a single coherent curriculum unlike traditional graduate and post-graduate teacher education models where ITEP is envisioned as a holistic undergraduate programme that attempt to offer holistic training to every level of the school education such as foundational, preparatory, middle and secondary, all aligned with best practices in teacher preparation to ensure a strong base for pedagogical practices and academic competency. ITEP also promotes creative thinking, critical thinking, digital literacy and effective communication skills along with the traditional, value-based education. Curriculum reform at the policy level does not automatically translate into effective implementation at the institutional level (Fullan, 2016). The program starts in the institute of study in academic year 2023-24. So, the perception of the students about the program very important to know, to modify the curriculums per the societal needs. Understanding how students experience and perception towards the new curriculum is therefore crucial.

Attitude of the students towards curriculum design, pedagogy, and institutional support serve as key indicators of programme effectiveness, particularly during the early stages of implementation. Against this backdrop, the present study examines the implementation of the ITEP curriculum at a selected university, focusing on students' perceptions measured through an attitude scale on these components.

POLICY CONTEXT AND CONCEPTUAL FRAMEWORK

NEP 2020 recognises that the quality of school education is directly depends on the quality of teacher preparation. The disconnect with the school curriculum and teacher education programmes is bridge by the introduction of Integrated Teacher Education Program as transformative change that creates seamless link between school education and teacher education (NEP, 2020). NEP 2020 positions teacher education as central to educational reform and emphasizes integration, flexibility, multidisciplinary, high-quality training and professionalism. The conceptual foundation of ITEP aligns with school curriculum frameworks, pedagogical practices used in the classrooms, learning outcomes expected at the school level. This programme ensures the future teachers understand what to teach, how to teach and why to teach in alignment in light of the need of school education. Learning at school level need to aligned with the constructivist, experiential learning and technology-enabled learning theories, to focus learning as an active, engaging, reflective process (Korthagen, 2010). This policy also highlights the continuous school exposure to understand the real classroom contexts, observe the learning diversity, practice NEP 2020 aligned with learner centric pedagogies such as experiential, problem solving, digital pedagogies and inquiry-based learning rather than theory oriented. This also ensure the continuity between foundational stages of schooling as well. ITEP in alignment with NEP 2020 trained teachers in innovative pedagogies and their assessment and the effective use of digital platforms (NEP, 2020).

From the perspective of curriculum implementation, theory of educational change, which emphasizes that successful reforms depend on coherence between curriculum design, pedagogical practice, and institutional capacity (Fullan 2016). Student perception is treated as a result of the interaction, curricular reflection and lived academic experience.

REVIEW OF RELATED LITERATURE

Review of literature gives a brief about the researches done to find the possible gaps in the study. Researches on ITEP (Integrated teacher education programmes) indicates positive outcomes in the teacher education program related to professional competencies, reflective practices, and in concern with student engagement (Darling-Hammond et al., 2017). Studies on curriculum reform in higher education highlight that institutional readiness, faculty

preparedness, and resource availability significantly influence implementation success (Tondeur et al., 2018).

Devi, U. N., & Konwar, J. (2025) in the paper on Integrated Teacher Education Program (ITEP): Paradigm shift represents a shift from traditional teacher training to a more comprehensive, integrated, holistic 4-year dual major program aligned with NEP 2020 used an exploratory approach based on government documents and literature found opportunities for modern teacher preparation by the integration of pedagogy, content and practical training while infrastructure challenges and educator readiness is still limited.

Bhatt, U.A. (2025). The study on 'Inclusivity, Culture & Sustainability in ITEP Curriculum' investigated the embedded cultural heritage, sustainability and inclusive pedagogy in ITEP aligned with NEP 2020 with using qualitative literary research and comparative curriculum analysis and found the positive result that to prepare the holistic educators, ITEP should integrate local cultural knowledge, ecological pedagogy and inclusive practices.

Kaur and Kaushal. (2025) reviewed the purpose, benefits and challenges of ITEP including learner centric, competency-based education in their paper. The methodologies include literature reviews, examining policy, research articles and implementation strategies and conclude ITEP improve the quality of teacher education and professional development but the major challenges they found is institutional readiness, infrastructure and trained faculty for successful implementation.

Kumar, P., & Mehta, L. (2025) in their study on School- partnership in ITEP Curriculum delivery: Challenges and Opportunities explore and analyse the partnership between teacher education and institution and school influence curriculum delivery and experiential learning using three TEIs and partner school. The result shows that strong school partnership improved integration of classroom theory with school practices but coordination and workload planning were the major challenges.

Jain, V., & Rajput, S. (2025) in their study competency-based assessment in ITEP curriculum employed 80 faculty and analysed the assessment rubrics through qualitative survey and revealed that competency-based assessment practices introduced under the ITEP curriculum were perceived as more effective than traditional examination systems. Here the faculty members acknowledge improvements in evaluation teaching, classroom performance and professional skills. However, the results also indicated a need for systematic faculty training and clearer assessment guidelines to ensure the consistent and fair implantation across the institutions. The institute readiness is therefore important to strengths that ITEP under TEI.

Mandal, R., Mete, J., & Mondal Biswas, R. (2025) in their paper critically examines the implementation of ITEP in India highlighting systematic challenges and the future prospects for the holistic teacher education reform. The qualitative methodologies employed such as literature reviews, policy document, academic papers, government reports and case studies and finding shows that major challenges such as lack of infrastructure, faculty training, policy misalignment and rural access issues. Instead of all these challenges ITEP promotes experiential learning and align with NEP 2020 and global standards.

Roy, T., and Bhattacharya, S. (2025). The study learner centric curriculum in ITEP: perception and outcomes reveal that students and faculties both perceived the curriculum as relevant and context- based still continuous curriculum feedback mechanisms need to be taken care of. The study examines learner centric approaches embedded in the ITEP curriculum foster the learner engagement and pedagogical readiness. The research methodologies included surveys and focus group interviews with ITEP students and faculties.

Sharma, N. (2025) reveals in his study Content relevance and curriculum alignment in ITEP: A students perspective found relevant and professionally useful. The purpose of the study was to explore alignment of ITEP curriculum content aligned with the classroom practice and

future profession demands by employing descriptive survey of ITEP students (n=200) across multiple regions.

Vijayalakshmi, Y., & Sharda, S. (2025). The study impact of ITEP Curriculum on students' learning outcomes focus on enhancing knowledge integration, critical thinking and instructional skills in ITEP curriculum by employing quasi-experimental design comparing ITEP students' performance with traditional B.Ed. cohorts using Pre-test and post-tests. The results demonstrate significant improvement in teaching competency, lesson planning and reflective practice as compared to traditional cohorts ($p < 0.05$)

Singh, R., & Choudhary, A. (2024) found in their study ITEP curriculum was more aligned with 21st century competencies that emphasised on practice teaching, community engagement and reflective skills that traditional programmes in the study curriculum integration in teacher education: A comparative study by curriculum analysis and comparative framework using content mapping.

Prasad, M. (2024) in his study on redesigning teacher education curriculum under NEP 2020: A policy and Practice analysis in which detail document and policy analysis of ITEP curriculum (NEP 2020) structure in relation to global standards UNECSO/ world bank frameworks discussed. The study concludes strong alignment with global standards for teacher preparation while found gaps in implementation mechanisms and assessment strategies

Gupta, D.P. (2021). In his study on perception of prospective teachers towards four-year ITEP, explored the view of prospective teachers on integrated model's potential to produce professional with TPCK (Technological Pedagogical Content Knowledge) by employing qualitative analysis from 93 final year ITEP students selected purposively. The result shown positive attitudes but noted issues like credit overload and integration gaps between theory and practice.

Studies on ITEP curriculum indicates strengthens reflective practices (Das, S., & Barman, S., 2025), enhances technology supported teaching (Sen, R., & Chakraborty, M., 2024) and improve competency-based assessment (Jain, V., & Rajput, S., 2025) for the holistic and professional development. However, challenges related to infrastructure and faculty preparedness persist.

Indian studies on teacher education reforms have emphasized the need for alignment between policy vision and institutional practice. However, empirical research focusing specifically on ITEP remains limited, particularly at the institutional level. The challenges include infrastructure, faculty readiness, curriculum design and its relevance, integration due to lack of awareness in students as well as educators. Most studies emphasis on conceptual reviews, mix of qualitative and quantitative on ITEP.

This study addresses this gap by providing systematic evidence on student perceptions during the early phase of ITEP implementation.

OBJECTIVES OF THE STUDY

The following are the objectives of the study:

1. To examine the perception of students toward the curriculum design and structure of the ITEP.
2. To analyse the perceptions of students towards pedagogical practices adopted under ITEP.
3. To assess perceptions of students towards institutional support in implementing the ITEP curriculum.
4. To assess the perception of students towards professional skill development among ITEP students.
5. To examine the student's perception based on gender.

6. To analyse the year of study has a significant influence on students perception on ITEP curriculum.

HYPOTHESES

The Null hypothesis of the study is:

1. **H₀₁:** There is no significant difference in the mean score of attitudes among the students towards the design and structure of the curriculum.
2. **H₀₂:** There is no significant difference in the mean score of perception among students regarding the pedagogical practices adopted under the ITEP.
3. **H₀₃:** There is no significant difference in the mean score of perception of students regarding the institutional support for implementing the ITEP curriculum.
4. **H₀₄:** There is no significant difference in the mean score of perception of students regarding the skill development among the students enrolled in the ITEP Programme.
5. **H₀₅:** There is no significant difference in the mean scores of male and female students towards the ITEP curriculum.
6. **H₀₆:** There is no significant difference in the mean scores of ITEP students of different year of study with respect to ITEP curriculum.

METHODOLOGY

Research Design

A descriptive survey design within an institutional case study was adopted. This approach ensures in depth understanding of students' perception of ITEP curriculum and the implementation within the state university choose for study.

Sample

The sample of the study comprised of students enrolled in the ITEP programme at a selected state university in the academic session 2023-24, 2024-25 and 2025-26. Sampling method employed was convenience sampling due to accessibility and the exploratory nature of the study.

Tool

The data were collected from 172 students using a self-developed Attitude Scale on ITEP Curriculum, consisting of 25 statements across five dimensions (5 statements in each component):

1. Curriculum awareness and understanding
2. Curriculum design and relevance
3. Pedagogical practices
4. Skill and competency development
5. Institutional support

Validity and Reliability

Content validity was established through expert review by teacher educators of the institute. Reliability was calculated using Cronbach's alpha, describes satisfactory internal consistency, as per the standard of internal consistency recommended by Creswell and Creswell (2018).

DATA ANALYSIS

Data were analysed using descriptive statistics, including mean, standard deviation and t-test. Higher mean scores indicated more favourable student attitudes toward ITEP implementation. To test the hypothesis, t-test was employed. Tool used for data analysis is Microsoft Excel.

Data Preparation and Scoring

The responses were collected using a five-point Attitude scale, where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree. All items were positively stated; no reverse scoring was needed. Higher total scores indicate a more favourable attitude of students toward all the components mentioned in the scale of ITEP curriculum. A total of 172 valid responses from ITEP students were included for analysis. The tool comprised of 25 items across five components.

Reliability Analysis of the Attitude Scale

Internal consistency of the attitude scale was calculated using Cronbach's Alpha. The value of Cronbach's Alpha (α) or reliability coefficient of all the four components was found above the acceptable value i.e. 0.982 which indicates an excellent internal consistency in all the items of the components of the tool. Hence, the attitude scale is considered highly reliable for measuring perceptions students towards ITEP curriculum and their implementation. The very high reliability among items of the tool measuring awareness, pedagogical practices, professional skill, and institutional support suggest strong coherence between them.

Descriptive Statistics

Descriptive Statistics such a mean and standard deviation were used to summarize students' response. On sample t-tests were employed to test the null hypothesis by comparing the obtained mean scores in the Attitude scales.

Table 1: t-test calculation to test Hypothesis

Variable	N	Mean	SD	t	p	Decision $\alpha = 0.05$
Curriculum design and relevance	172	4.02	0.73	18.32	<.001	Reject H_0
Pedagogical Practices	172	3.71	0.72	12.93	<.001	Reject H_0
Institutional Support	172	3.94	0.68	18.11	<.001	Reject H_0
Skills and Competency development	172	3.78	0.75	13.64	<.001	Reject H_0

At the 0.05 level of significance, the results of the one sample t- test indicated that the mean scores for all four dimensions were significantly higher than the neutral value of the Attitude scale ($p < 0.05$). Hence, all null hypothesis were rejected. This shows that the students' perceptions at the 5% level of significance are significantly positive. To test the hypothesis based on gender (independent variable) towards ITEP curriculum, t-test employed and calculated the p-value.

Table 2: Descriptive statistics of ITEP perception Score by Gender and independent sample t-test for Gender

Gender	N	Mean	S.D.	t-value	df	p-value	Decision at $\alpha = 0.05$
Male	61	103.31	6.84	-0.294	118	0.770	Accepted H_0
Female	110	103.69	6.12				

At the 0.05 level of significance, the calculated p-value ($p = 0.770$) is greater than 0.005, hence, the null hypothesis is not rejected. This indicates that there is no significant difference in the perception of male and female students about the ITEP curriculum. The curriculum appears to looks like gender neutral and uniform aligned with the NEP 2020. It emphasises on the equity and inclusiveness in the curriculum.

To analyse the year of study has a significant influence on students' perception on ITEP curriculum differ according to their year of study, a one-way Analysis of Variance (ANOVA) was conducted using Microsoft Excel. The level of significance was significant at 0.05.

Table 3: Descriptive Statistics of ITEP Perception Scores by Year of Study

Year of Study	N	Mean Score	Variance
Year 1	93	105	177.655
Year 2	51	103	130.8071
Year 3	28	88	267.2209
Total	172	296	

Table 4: ANOVA summary for the year of study

Source of Variation	SS	df	MS	F-value	p-value	F- crit
Between Groups	5736.30	2	2868.151	16.10	3.96	3.04
Within Groups	30099.58	169	178.104			
Total	35835.88	171				

The one-way ANOVA results found that a significant difference in the perception of students across different year of study. This indicates that students understanding and evaluation of the ITEP curriculum vary significantly as they progress through the programme.

The increase in perception scores across years suggests that the integrated and cumulative structure of ITEP enhances professional competence, pedagogical confidence and curriculum understanding over time. This finding supports the four-year integrated teacher education programme.

Mean Score Interpretation

The overall mean score of all the items within components was 3.88, indicates that students agreed with all the item that are framed positively, reflecting a favourable perception of its integration within the ITEP curriculum. They are aware about the curriculum and its implementation.

Interpretation of Mean Scores

The interpretation of mean scores of the data collected from the ITEP students of State University, U.P. as follows:

Mean Range	Interpretation
4.50 – 5.00	Very High / Strongly Positive
3.50 – 4.49	High / Positive
2.50 – 3.49	Moderate
1.50 – 2.49	Low
1.00 – 1.49	Very Low

With an overall mean of 3.88, student perceptions fall within the “**High / Positive**” category.

COMPONENT-WISE ANALYSIS

Awareness and Understanding: This component of the tool in which students demonstrated a high level of awareness regarding curriculum of ITEP and its alignment with NEP 2020, indicating a positive and successful curricular communication and orientation among the students.

Curriculum design and Relevance: The responses of the students highlight the positive received attitude towards ITEP curriculum as well organised, integrated and in align with NEP 2020 such as inclusiveness, innovation, disciplinary and practical based pedagogies such as collaborative learning, cooperated learning and reflective practices were regularly practiced. High mean score on items related to the objectives, the balance between the theory and practical, integration with others discipline suggest that students appreciate the structure of

ITEP. Hence, it reflects the success of the integrated and multidisciplinary model of teacher education.

Pedagogical practices under ITEP: Students response positively on the component pedagogical practices as they enhanced students' motivation, 4Cs (critical thinking, creativity, communication, collaboration, theory–practical integration (Biggs & Tang, 2011; Prince, 2004). Items addressing pedagogical practices reveal positive students' perception towards learner centric approach, reflective practices, activity-based learning. Students appreciated the use of interactive and innovative methods of teaching, group work which foster the engagement and understanding.

Skill and Competency Development: Items related to skill and competency development components demonstrate high mean scores indicate that skill and competency development contributed meaningfully to communication skills, lesson planning and teaching skills competence, classroom management, teamwork, technological proficiency, Reflective teaching practices. Results suggest Strong positive attitude of the students towards holistic professional, skill and competency development of future teachers. There are lower scores obtained in the item related to the consistency in pedagogical implementation may varies across the courses.

Institutional Support: Overall perceptions were positive, comparatively moderate scores in this component highlights to strengthening institutional mechanisms, academic guidance, availability of learning resources, mentoring support and faculties awareness about ITEP by other disciplines, need short-term program/faculty development programmes, workshops on innovative pedagogy, awareness program for other department faculties about the program, structural flexibility in workload and timetabling are some other issue. This indicates requiring further strengthening for effective implementation.

The content analysis based on the dataset highlights the curriculum design, pedagogical practices, professional skill development all the se are positively perceived by the ITEP students, while institutional support require continuous improvement. As a result, integrated approach of ITEP curriculum appears effective to prepare competent and reflective teachers, in align with NEP 2020 for viksit Bharat

MAIN FINDINGS

The main findings of the study were

1. ITEP students exhibit a highly positive attitude towards ITEP curriculum.
2. The attitude scale of the study demonstrated remarkably excellent reliability ($\alpha = 0.982$).
3. All the components were perceived as effective in enhancing engagement, skills, and pedagogical practices, professional readiness but moderate response received for institutional support where scope of improvement identified.
4. ITEP curriculum is perceived uniformly across gender.
5. Students understanding increases progressively as they advance the programme.

RESULTS

The analysis revealed an overall positive attitude among students toward the ITEP curriculum. Higher mean scores were observed for items related to curriculum integration, learner-centered pedagogy, and opportunities for professional skill development. Students expressed strong agreement that the integrated structure enhanced their understanding of teaching as a profession. Moderate mean scores were noted for institutional support, particularly regarding infrastructure and workload management. These findings suggest that while students value the curriculum's conceptual framework, practical challenges remain in institutional

implementation while gender does not influence students' perceptions of ITEP, and increase understanding of the curriculum progressively through the programme which significantly shapes and strengthens their professional and pedagogical outlook.

DISCUSSION

The findings affirm the relevance of ITEP in addressing long-standing concerns in teacher education. The positive student attitudes toward integrated curriculum design align with international research emphasizing coherence between disciplinary knowledge and pedagogy (Darling-Hammond, 2017). The present study in consist with Indian research on ITEP highlights the ITEP curriculum helps to bridge the long gap between subject knowledge and pedagogical practices. (Gupta, 2021: Devi & Konwar, 2025). In relation to pedagogical practices or training, Indian literature emphasised on the learner centric approaches, reflective learning and all the innovative ones as per the NEP 2020 is the strengths of ITEP (Das & Barman, 2025; Sen & Chakraborty, 2024). This indicates that OTEP pedagogy is moving away from traditional lecture-based models towards constructivist and Practice based approaches.

However, the concerns related to workload and infrastructure resonate with implementation research indicating that curriculum innovation often outpaces institutional capacity (Fullan, 2016; Mandal et.al., 2025; Altaf & Haider, 2025). The study highlights the mediating role of institutional support in transforming policy-driven curriculum reform into meaningful learning experiences. Most studies highlight positive Curriculum design including innovative pedagogies, skill development but infrastructural challenges still exist. Among the gender, found uniform perception that align with the inclusive classroom of NEP 2020 which emphasised on the equitable access and learning opportunities for all learner. similar finding has been reported in earlier studies, which highlights integration and competency-based teacher education program tend to minimise gender based perceptual differences by offering standardized learning experiences (Sen & Chakraborty, 2024: Jain & Rajput, 2025).

The study also indicates that difference in students perception across year of study, it increases progressively as they advance though the program. Earlier study also supports this finding, demonstrate that prolonged engagement in teacher education enhances reflective practices, professional confidence and teaching readiness. (Das, Braman, 2025))

Indian researches strongly put forwards the role of ITEP for enhancing the professional competencies among students represents a transformative shift in teacher education in India

IMPLICATIONS FOR HIGHER EDUCATION

The study offers important implications:

1. Higher education institutions must strengthen academic mentoring and infrastructural support for ITEP students.
2. Faculty professional development should focus on integrated and experiential pedagogy.
3. Student attitude surveys should be institutionalized as part of curriculum review and quality assurance processes.
4. Policymakers may use institutional case studies to refine large-scale teacher education reforms.

CONCLUSION

This institutional case study demonstrates that the ITEP curriculum is positively perceived by students and holds significant potential to transform teacher education within higher education. While the integrated curriculum and pedagogical innovations represent major strengths, effective implementation depends on sustained institutional readiness. Student attitudes, as measured through the attitude scale, provide valuable insights for strengthening ITEP implementation and advancing teacher education reform. Overall, ITEP successful ensures

equity cross gender, it foster developmental growth across academic years, therefore fulfilling its indented purpose as a comprehensive and forward-looking teacher education programme. As emphasised in NEP 2020, the quality of school education depends fundamentally on the quality of teacher education. When we strengthen the teacher education programme such as ITEP then only, we will improve the school education effectively. ITEP ensures that teachers are professionally competent, pedagogically skilled and classroom ready which in turn leads to effective curriculum implementation, improved teaching learning process and enhanced learning outcomes in schools.

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From Plate to Policy: A Field-Based Study on PM POSHAN 2.0 in India's Capital Schools

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ABSTRACT

This paper presents an investigation into the implementation of PM POSHAN 2.0; India's restructured school nutrition program launched in 2021 as a successor to the Mid-Day Meal Scheme (MDMS). Data was collected from government schools in Delhi, where the researchers had detailed discussions with students, parents, and teachers, and observed mealtimes and facilities during their one year of internship. This study finds that while PM POSHAN 2.0 has brought in several innovations such as fortified foods, digital monitoring, and stronger community participation, many of its promises are held back by unsuitability of meals; nutritional value and diversity; uneven oversight; lack of balanced distribution; timely delivery. The paper ends with suggestions to strengthen accountability, improve infrastructure, and scale up community-led practices so that the program can better match its goals with ground realities.

Keywords: PM POSHAN 2.0, Mid-Day Meal Scheme, Self-Help Groups, School Management Committees, mother committees

INTRODUCTION

Nutrition and education are interconnected in a profound way. A child who is hungry or malnourished finds it hard to concentrate in the classroom, to interact meaningfully with lessons, or to get pleasure from the learning process. The effect of poor nutrition is not only direct appearing in tiredness, lack of concentration, or absenteeism but also prolonged, affecting physical development, mental growth, and the chances of having a better life. Maslow's Hierarchy of Needs teaches us that food is among the most basic and essential needs of life. Before this basic need is satisfied, higher-order characteristics such as problem-solving, creativity, and self-actualization will still be unreachable. In the school environment, making sure that the children are well-fed is not an optional extra; it is the very first step that leads to academic, emotional, and social development.

Therefore the Government of India, understanding this, inaugurated the Mid-Day Meal Scheme (MDMS) in 1995 as a landmark intervention. The program turned out to be the largest school-feeding initiative in the world in a very short period of time, its main goal being to provide children with at least one hot, cooked meal during the school day. Besides the problem of hunger, it also attracted children to school, especially those from the downtrodden sections of the society, and at the same time promoted social equality as children from different castes and classes were brought together to share the meal. Over the years, the program has demonstrated the immense potential of linking nutrition to education, on the other hand, it uncovered some gaps that demanded enlargement and innovation.

With a wider perspective and stronger mechanisms, the program was redesigned as Pradhan Mantri Poshan Shakti Nirman (PM POSHAN) 2.0 in 2021. The renovated Scheme went on to cover pre-primary children, included millet and region-specific foods to provide nutritional variety, and also stressed on the fortified staples and local procurements in order to cater both dietary and economic needs. Moreover, it moved community participation up the ladder by incorporating the Self-Help Groups (SHGs), mother committees, and School Management Committees (SMCs) initiatives. The adoption of digital monitoring systems gave way to greater transparency and accountability and brought it in line with India's Sustainable Development Goals (SDGs) of Zero Hunger and Quality Education.

However, no matter how grand the vision or extensive the policy, putting theory into practice daily is complicated. The internship we had in schools gave us a glimpse of the reality on the ground of how PM POSHAN 2.0 works. The majority of the meals that were prepared and presented for our observation were plain and simple—rice, dal, khichdi, or daliya—that could satisfy only the basic needs and offered a little diversity. Among the everyday irregularities illustrated by the incidents of late serving, cold food in winter, or portions that were either too small or too big and so on. While there were pushing cases, such as millet-based daliya, SHG-led kitchens, or schools that kept up hygiene protocols, there also were some problems like food safety laxity, occasional occurrences of no meals, or lack of grievance redressal channels. Although these gaps are not present everywhere, they substantially determine children's experience of the scheme and, thereby, its effectiveness.

This study is an outcome of these observations. It is not only about getting to know the extent to which PM POSHAN 2.0 functions in reality but also acknowledging what it accomplishes and indicating where it would have been possible to improve its effectiveness. Even the most modern and well-thought-out policies can be enhanced. This is especially true, of course, when millions of children are impacted daily. Through the highlighting of both the achievements and the routine challenges of implementation, this piece of research aims, quite vividly, at a constructive contribution to the ongoing dialogues regarding school nutrition programmes in India.

At the end of the day, the research rests on a simple conviction: a hungry child can never be properly taught and, therefore, the very learning they ought to be given ought to be the first thing they lose. PM POSHAN 2.0 is a contribution to the realization of this dream and through an honest reflection on its triumphs and setbacks, we can draw closer to the position where we are assured that no child's learning is hampered by hunger.

RATIONALE

This research is motivated by the strong connection between nutrition, education, and equity. School meals do more than just satiate children's hunger—they influence children's attendance, participation in the classroom, and their sense of dignity and inclusion. As future educators and researchers, it is vital to comprehend the role of a flagship program like PM POSHAN 2.0 in the transition from policy to practice because its effectiveness has a direct impact on the learning environment. Though the scheme is bold in its ambit and progressive in its design, the daily realities of implementation often become the determinants of whether its objectives are genuinely met. The present research, therefore, tries to narrow the divide between the goal and the experience: not only it studies whether the food reaches the children but also investigates if it is nutritious, safe, timely, and empowering. This study seeks to bring the voices of the ground — students, parents, teachers, and community members — into the limelight in order to indicate the areas that are working well and those that need to be strengthened. The objective here is not to allocate blame but to anticipate continuous progress so as to facilitate the fulfillment of the PM POSHAN 2.0 pledge in the day-to-day lives of children.

LITERATURE REVIEW

The impact of school feeding programs is clearly shown by studies that are frequently conducted. Researching the MDMS in India not only highlights its achievements but also its limitations. A study by Hoque (2018) pointed out a lack of food diversity and an inefficient grievance mechanism in the MDMS and stressed the need for decentralization and the inclusion of micronutrients. Paltasingh and Bhue (2019) acknowledged the MDMS for the positive role it played in the empowerment of the underprivileged areas, especially women, and the safe food issue while being careful of its caste-based discrimination. Singh (2020) talked about the problem of affected educators who usually needed to combine food delivery with their teaching duties and the insufficient cooking facility condition that had been going on for a long time. Mishra (2021) situated the MDMS as a part of larger programs for children's welfare and argued that insufficient interconnections reduced its overall effectiveness.

In 2021, the deployment of PM POSHAN 2.0 brought about dramatic changes, and the efficacy of the program is now being evaluated by contemporary studies. Several scientific studies support the role of the initiative in the use of fortified foods such as fortified rice as the most important method of nutritional treatments. One research of Yadav et al. (2023) demonstrated the effectiveness of fortification of the entire staple food to improve nutrition outcomes, thus validating the innovative method. Still, research into the realization of PM POSHAN 2.0 is revealing that some problems are left unresolved. A report by NLUO (2025) argues that the configuration of the new project as being "top-heavy" may lead to lesser achievement of objectives, unless a significant revision is done to improve stakeholder participation and on-ground implementation.

The single most significant improvement of PM POSHAN 2.0 is the use of technology, particularly the Poshan Tracker application. Despite this, the efficiency of the system has been varied. A description in the Times of India (2023) appreciating the app as a "game changer" is made because it can be the source of "real-time" data and can enhance transparency. Nevertheless, other studies such as IMPRI India (2025) highlight technology-related difficulties, for example, the inconsistency of the app, and the insufficiency of digital skills of the Anganwadi workers. This is in line with the finding of Berry et al. (2020) that technology can upgrade service delivery, however, it is not able to substitute for programmatic and social changes which are comprehensive. This study draws attention to the fact that the dawn of change in PM POSHAN 2.0 is not necessarily the end of the struggle but the balancing of the great ambitions with the reality of doing so.

METHODOLOGY

Sample

The research purposely sampled the parents, pupils, and teachers as three different groups having diverse views. The data included parents, pupils, and teachers from the government schools of Delhi. The data was collected through face-to-face as well as online mode. Parents: N = 20, Pupils: N = 30 (Classes 3–8), Teachers: N = 50 (including the in-service and the trainee teachers) gave a total of 100 participants; thus, the study has moments that depict a fair representation of people's experiences regarding the PM POSHAN 2.0 scheme. The study used triangulation in terms of methodology weaving data from three different respondent groups : the teachers, parents, and pupils. This method made it possible to verify the findings from different angles by capturing various views of the same phenomenon. That is to say children's direct experiences through taste and satiety were juxtaposed with parents' understanding of health outcomes and teachers' observation of attentiveness and attendance. Triangulation in such a manner goes a step further in lessening the chances of bias while at the same time not constraining the understanding of the PM POSHAN 2.0 implementation.

Table 1: Summary of Demographic Profile (N = 100)

Variables	Categories / Mean (SD)	Percentage (%)
Respondent Groups	Parents (20)	20.0
	Pupils (30)	30.0
	Teachers (50)	50.0
Age (Pupils)	8–14 years	Mean $\approx$ 11
Class (Pupils)	Classes 3–5	33.3
	Classes 6–8	66.7
Gender (Teachers)	Male	35.0
	Female	65.0

Tools used

Parents, pupils, and teachers were interviewed by the set of questions. Each interview schedule has both closed-ended and open-ended questions dealing with the aspects of the PM POSHAN 2.0 scheme, such as awareness, perceptions, and experiences.

Parents' Interviews: Concentrated on the knowledge of the scheme, the satisfaction level towards the meals, the child's perception of health and fullness, and participation in the activities of the school committee.

Pupils' Interviews: To know children's first-hand experiences concerning the meals, taste, freshness, satiety, classroom attentiveness, and inclusion of local foods like millets, fruits, or eggs.

Teachers' Interviews: Composed of issues where teachers were requested to comment such as attendance, attentiveness, quality and hygiene of meals, challenges in implementation, and knowledge of monitoring systems.

FINDINGS

During the school internship program, the researchers found PM POSHAN 2.0 functions in real life in quite a varied manner. The food they saw was mostly their daily meals with rice, dal, khichdi, and daliya. It seems these meals met the minimum requirements, however, students and teachers informed us that the portions weren't always the same and that the content from the day before was almost identical. A little bit of rice and millets had been introduced in a few schools that had been promised, which indicated that the policy changes were getting down to the ground but this was not something that happened everywhere consistently. The children were the most delighted when they were eating fruits, puris, and sabzi, though these times were not frequent and felt like they were part of those celebrations rather than the daily routine.

In many schools, parents and teachers told us that children got sick sometimes after eating a certain meal, which made them worry about cleanliness and food storage. It was observed during one of the visits that the puris served were so hard that the younger children found it difficult to chew, and some of them didn't finish their food. During cold seasons, food that was brought to the table was often not warm enough, thus both the flavor and the nutritional value were reduced. Teachers reported that the serving delays interfered with the schedule and sometimes left the children feeling angry and hungry. Conversely, there were times when the amount given to the meals was so high that waste of food occurred, and on the other hand,

there were cases where the quantities were too small to fill up the children. These views demonstrate the everyday problems that go beyond what is stated in the policy and are what determine how children really experience the scheme.

The meal was sometimes not delivered at all as well. During a half day at a school, children were only given biscuit packets instead of the hot meal that was promised in the scheme. While the biscuits did provide the children with something to eat, the teachers together with the parents argued that it could in no way be an alternative of a proper and nourishing meal. Such instances showcased the vulnerabilities of the delivery mechanism in the event of disrupted schedules and the compromises made on the program's benefits that were affected by how quickly.

A teacher spoke proudly about how they mixed local millets in the daliya given to the children, which was evidence to the school meal scheme policy emphasis on nutrient-rich traditional grains. Although this was a very good sign of the policy being effectively implemented, most of the children didn't understand that the food was enriched. For them, it was just a regular meal, indicating that while the quality of nutrition is being improved, the students are still largely unaware of it.

Hygiene and food safety were very different from school to school. In certain schools, we saw teachers or the Midday meal coordinator tasting the meal before serving it and using clean utensils and taking great care. This gave teachers and parents the assurance that good standards were being maintained. In a few schools, we noticed that the cooks were wearing shower caps and gloves while they were preparing and serving food. These actions not only gain the trust of both the teachers and the parents that hygiene is being taken seriously but also make a good example of how the scheme could be implemented with care.

The need for the meal was, among other things, the point that teachers mentioned repeatedly. They noted that the children were attending the school more regularly and were more focused during the classes when the food was served on time and was of good quality. Some even admitted that a few of the children were coming particularly for the meal which, for most of the low-income children, is the only reliable source of food for the entire day.

On governance matters, digital monitoring systems were in place, but it was discovered that the majority of the staff had not been trained to use them. Teachers made it known that in some schools there are bodies such as SMCs and mother groups which are very active, while in others, they are only on paper and without any real commitment.

On the other hand, there were some good things despite these issues. In certain areas, the women's Self-Help Groups (SHG) were in charge of the cooking which, in addition to giving the community a sense of ownership, also created income opportunities for local women. Children liked meals made with local ingredients much better because the food matched their cultural food habits.

These problems were still systemic even if such innovations existed. The lack of a comprehensive grievance redressal mechanism, the inclusion of the variety of meals promised and monitoring were the most common issues which we bumped into. The parents and teachers reported that they frequently did not have a proper channel through which they could express their grievances either when the food was of poor quality or when meals were missed.

DISCUSSION

The results of the current research are parallel the main aspects addressed in several studies of the Mid-Day Meal Scheme situation, most importantly the problems in monitoring the program and the lack of good accountability systems (Hoque, 2018; Singh, 2020). Although PM POSHAN 2.0 has brought in various changes such as the inclusion of proteins, fruits, and other items in the menu and the introduction of the systematic record, the survey

demonstrates that these steps are still to have visible results on the ground. The observations suggest that the impact of PM POSHAN 2.0 relies not only on how the policies are formulated but also on what children experience on a daily basis.

The reports of children becoming ill after the meal, the puris being too hard for young children to chew, and the food getting cold during winter are some of the indications of quality and sanitation gaps that Singh (2020) also mentions in her study based on the field. Some sanitation issues were uncovered in schools, but others were found to be strictly following their routines. For example, at one of the schools where the researchers went, the staff wore shower caps and gloves, and the food tasting was carried out before the food was served. If the staff members are properly trained and motivated, they can execute the scheme's regulations without any problem, thus, the point of food safety raised by Paltasingh and Bhue (2019) can be supported by these activities.

The long time before the serving, the uneven sizes of portions and the substitution of hot meals with biscuits on half-days are only a few examples on how the delivery can be weak or even break down in some parts of the town, thus, Mishra's (2021) worries about the lack of interlinks among different welfare schemes being confirmed. Additionally, the situation where some schools were serving more meals than needed and some less is a direct reflection of the issues found in management by Paltasingh and Bhue (2019) that have been pointed out. The things that happen every day in people's lives mean that even though some policy innovations like local foods and SHG participation are promising, they still need to change the reality on the ground.

It was found situations where the school's food was different, and it was because of the policy. The teacher explained that for the nutrition program, the daliya was made with locally grown millets which is in line with PM POSHAN 2.0's initiative to reintroduce traditional and climate-resilient foods. On the other hand, children themselves were completely unaware of the new food and looked at it just as another school lunch. So, student awareness of the policy is still far behind implementation, signaling that nutrition education, as Singh (2020) puts it, is still an auxiliary part of distribution.

There also appear to be vínculos between both nutritional aspects as well as attendance. However, if the scheme does not guarantee both that, firstly, it will have less than half of its potential impact. It does appear to be a wise decision to have the SHGs and mother committees with their decentralized power, although, again, these will be of real importance only if they have the necessary support to survive.

All in all, PM POSHAN 2.0 is a good initiative; however, his triumph lies in finding the right balance between innovativeness and successful implementation.

CONCLUSION & RECOMMENDATIONS

PM POSHAN 2.0 study reminded us how a meal in school is very much different from a mere food on a plate—a meal is often the one commitment of nourishment a child can rely on in a whole day. As for a lot of children attending Delhi schools, such lunch not only satiated their appetite but also supplied them with the required energy and concentration to take an active part in their lessons. Teachers told us many times that attendance was higher during that time when meals were on time and of good quality. Alongside that, the disparities we found, for example, meals getting cold during winter, children having a hard time biting into dry puris, or food being exchanged for biscuits on half-days clearly indicate that the system can be very vulnerable in real life. Parents felt uneasy when their children became ill after eating, and employees confessed that paying low wages made it hard for them to keep their spirits up. However, there were also some moments that made our hearts glad, like the cooks who wore shower caps and gloves for sanitation, daliya cooked with local millets being served, and small kitchen gardens where children were happily watering spinach and

coriander plants. These instances indicate that with love, consciousness, and collective effort, the scheme can be closer to its promise. PM POSHAN 2.0 is hence not only about feeding children but also about the right, the fair and the giving every child the opportunity to learn without carrying the weight of hunger.

- Children should be provided with meals that are warm, delicious, and diverse and in which fruits, milk, and traditional grains such as millets are regularly included. This will make them feel both fed and looked after.
- Hygiene has to be the main concern which could be achieved by instructing and assisting kitchen personnel and promoting activities like the use of gloves, shower caps, and the storage of the hygienic kind among them.
- Time is of essence. Meals ought to be delivered on time, even on half-days, so that children cannot be left waiting or given substitutes like biscuits.
- Parts should be of equal proportions—not so small that children still feel hungry and not so big that food is discarded.
- The likes of SHG-led cooking should be availed and spread to all schools as this would bring about community pride and ownership since it is a kind of cooking that communities manage themselves.
- Children should be told while serving the meals why the foods that they eat like millets or vegetables are of great importance to their growth. This simple knowledge may turn a meal into a lesson in health and dignity.

PM POSHAN 2.0 will not only be able to feed children if the above interventions are in place but will also be able to realize its dream of creating a healthier, and more inclusive and equitable education system.

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