

## Impact of Changing Teacher Roles under New Education Policy on Students Learning Outcomes and Educational Environment in Kota and Bundi Districts

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### Abstract

This study examines the evolving roles of teachers under India's National Education Policy (NEP) 2020 and their subsequent impact on student learning outcomes and the educational environment in Kota and Bundi districts of Rajasthan. The NEP 2020 is obligatory to the transformative change in the pedagogical practices that will compel teachers to become not only knowledge carriers but also holistic and competency-based learning facilitators. This study examines the differences in the way these shifting teacher roles appear in two very different educational settings through the comparative secondary data analysis: Kota with its intensive culture of coaching and Bundi, which is a more traditional rural educational environment. The researchers examine such indicators as student achievement measures, classroom climate, teacher involvement in professional development, and infrastructure use. The initial results indicate that the NEP 2020 implementation has posed different challenges and opportunities in both districts and the teacher readiness, the increase of workload and the availability of resources have become the key factors that mediate the challenges. The study helps to grasp the reality of policy implementation at the ground level and provides an insight into the ways in which the transitions in the roles of teachers can be facilitated to improve the educational outcomes in the varied socio-educational settings.

**Keywords:** National Education Policy 2020; teacher roles; learning outcomes; educational environment; comparative analysis; Rajasthan

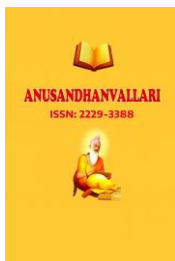
### 1. Introduction

The National Education Policy 2020 envisions a fundamental transformation in the role of teachers, moving away from rote-based instructional delivery towards facilitative, learner-centred, and competency-oriented pedagogy. Teachers are supposed to be mentors, who will promote critical thinking, problem-solving, and holistic development of students, which is consistent with constructivist and experiential learning philosophy. The change also emphasizes more on the continuous professional growth, interdisciplinary instruction, and formative assessment practice to meet the needs of various learners (Yenugu, 2022; Bhardwaj et al., 2024).

The NEP 2020 also emphasizes the autonomy, accountability, and professional status of the teachers by connecting the quality of instructions to the systemic support systems like training, digital infrastructure, and better teacher-student ratios. The focus of policies on integration of ICT and innovation at the school level makes teachers the initiators of educational change instead of mere executioners of school curriculums. These expectations, though, require quantifiable shifts in school operation and learning performance that need to be empirically tested at decentralised levels of administration (Kulal et al., 2024; Akram et al., 2022). This highlights policy expectations regarding professionalism and technology, framing the need for empirical verification.

#### 1.1 Problem Statement

Although the transformative vision is clearly defined in NEP 2020, there has always been a gap between the aspirations in the policies and the empirically observable results in various school systems of India. Although national- and state-level analysis offers general trends, it tends to obscure district-level differences which are of



critical importance to implementation effectiveness. The lack of granular quantitative studies restricts the knowledge on how teacher role reforms can lead to better learning outcomes and learning environments in practice (Ashokkumar et al., 2025; Johnson & Parrado, 2021). Current studies on NEP 2020 are largely conceptual or perception-based, as they are based on the opinions of stakeholders and not objective indicators based on large-scale data. The secondary-data-based assessments that would connect the proxies of teacher roles to learning and environmental outcomes are in obvious demand, especially in the districts with dissimilar educational ecosystems. This gap is important to address because it enhances evidence-based policymaking and accountability systems in the implementation of NEP (Kannan, 2021; Kulal et al., 2024). This justifies the study's quantitative, secondary-data approach as a methodological contribution.

### 1.2 Teacher Roles, Learning Outcomes, & Educational Environment

The available body of educational research has always shown that teacher traits and practices have a profound impact on academic performance and wellbeing of students. Some of the indicators that have been empirically linked to learning outcomes in various settings include classroom climate, instructional support, and teacher engagement. Such relationships provide a conceptual basis of teacher role transformation with the help of proxy indicators that are available in secondary data (Wang et al., 2020; Tao and Chen, 2024).

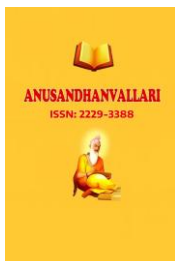
In addition to learning outcomes, the teacher role has an impact on the overall learning environment in terms of interaction with infrastructure, use of resources and school climates. The quantitative studies highlight the mediating effects of the following factors on the effectiveness of the teaching and learning processes: pupil-teacher ratio, access to ICT and classroom management practices. When the two dimensions are examined together, a more integrated understanding of the educational quality can be achieved in the framework of policy reform (Closs et al., 2022; Espinosa Andrade et al., 2024). This correlates teacher role proxies to environmental conditions, and this aids integrated analytical framework.

### 1.3 Contextual Justification of Kota and Bundi Districts

Kota district is a rare and high-pressure learning ecosystem that is marked by high performance orientation, competitive learning cultures and relatively high access to learning resources. Even though these conditions can improve the results of higher learning, they raise the concerns of the workload of a teacher, the stress of a student, and the sustainability of the teaching practice. Kota analysis provides us with an idea of how the role of teachers change can be introduced into the performance-based environment (Moore, 2024; Jerrim and Sims, 2021). By contrast, Bundi district represents a more resource-deprived, school-based educational environment in which the infrastructural constraints, workforce issues, and enrolment dynamics play a key role in influencing the teaching learning dynamics. The comparison of Bundi with Kota allows making differences between divergent district settings and provides a subtle understanding of the interaction between NEP-based teacher role changes and local structural conditions (Hulme and McMurray, 2024; Morlà-Folch et al., 2022). This is why Bundi qualifies to be a contrasting case of contextual inequalities in NEP implementation.

## 2. Review of Literature

Empirical research on NEP 2020 identifies its bold effort to reorganize teaching in terms of competency-based curricula, flexible pedagogies and improved professional development. Although the policy analyses acknowledge the transformative purpose of NEP, the empirical research warns that the results of the implementation are diverse in relation to the capacity of the institutions, teacher readiness, and systemic support. Quantitative assessments are still limited, especially those that can relate teacher role expectations to quantified performance measures at sub-state levels, so as to restrict solid policy feedback processes (Ashokkumar et al., 2025; Kulal et al., 2024).



Education research studies conducted at large scale are becoming more dependent on secondary data to operationalise the role of teachers using proxy measures like qualifications, training attendance, instructional time, and teacher availability. The proxies allow comparative analysis between regions and time periods, which provide methodological benefits of scale and objectivity. Scholars warn that these measures could be insufficient to measure pedagogical richness or the quality of classroom interaction, and one should interpret the results obtained based on administrative datasets with great caution (Johnson & Parrado, 2021; Kannan, 2021).

There is a considerable amount of quantitative research that shows that teacher practice is strongly related to student learning outcomes, especially academic achievement, engagement, and psychological wellbeing. The meta-analytic evidence supports the fact that positive classroom climates, effective communication, and clarity in instructions are important in improving student performance in all contexts. These results support the application of teacher role indicators as the explanatory variables in the analysis of learning outcomes based on the data of large-scale assessments (Wang et al., 2020; Tao & Chen, 2024).

In addition to success, teacher positions also impact the overall school climate, classroom organisation, and efficient resource utilisation. Quantitative research indicates that positive pupil to teacher ratios, proper infrastructure and access to learning technologies moderate the teaching practices. Meta-analyses also suggest that new instructional conditions, such as immersive and technology-based environments, can lead to improved learning in case the teacher is properly trained and supported (Closs et al., 2022; Coban et al., 2022).

Studies that have investigated the workload and professional stress among teachers show that it has great implications on the quality of instruction and student achievement. Intense workloads, administrative pressures, and institutional deficits are negatively correlated with teacher wellbeing, classroom involvement, and teaching efficiency. The necessity of sustainable teacher staffing and equal professional demands is highlighted by empirical data to make pedagogical changes, which are planned within NEP 2020, a success (Creagh et al., 2023; Jerrim & Sims, 2021).

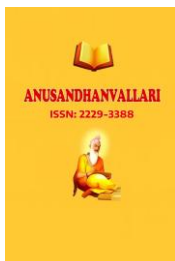
Quantitative research on the district level offers valuable information regarding the effect of structural conditions on educational performance. Comparative studies have shown that the existence of inequality in infrastructure, staffing levels, and digital capacity determines the teaching process and student performance. The experience of various districts shows that policy changes produce varying impacts based on local capacities, which supports the existence of context-sensitive assessment frameworks in decentralised education systems (Espinosa Andrade et al., 2024; Hulme & McMurray, 2024).

Although the literature on teacher effectiveness, learning outcomes and school environments has been broad, there are still significant gaps in the integrated district-level quantitative analyses after NEP 2020. The literature does not often include teacher role proxies, learning outcomes, and environmental indicators in one analytical framework. Moreover, there has been little focus on the comparison of the situation in districts within the same state, which highlights the necessity of comparative secondary-data research to guide evidence-based educational planning (Morlà-Folch et al., 2022; Moore, 2024).

### 3. Conceptual Framework

#### 3.1 Theoretical Underpinning

This study conceptual framework is based on the constructivist learning theory that focuses on the active engagement of learners, construction of knowledge through interaction and facilitative role of teachers. With NEP 2020, the vision of a teacher is a facilitator of learning whose role is to provide scaffolds instead of deliver content, which is quite consistent with constructivist beliefs regarding meaningful learning. This theoretical orientation embraces the examination of teacher role change using signs of instructional assisting, student involvement, and adaptive pedagogical actions (Wang et al., 2020; Tao & Chen, 2024).



The social learning theory also enlightens the framework because it emphasizes that social interaction, modelling and classroom climate are some of the factors that influence learning behaviours. Classroom management, cooperation and emotional support are the dimensions of teacher influence on not only academic outcomes but also the psychosocial learning environment. The focus on the holistic approach and the inclusion classes in NEP strengthens the applicability of social learning lenses to the analysis of the educational environment as a result of teacher role transformation (Duan et al., 2024; Madigan & Kim, 2020).

### 3.2 Operationalisation of Key Constructs

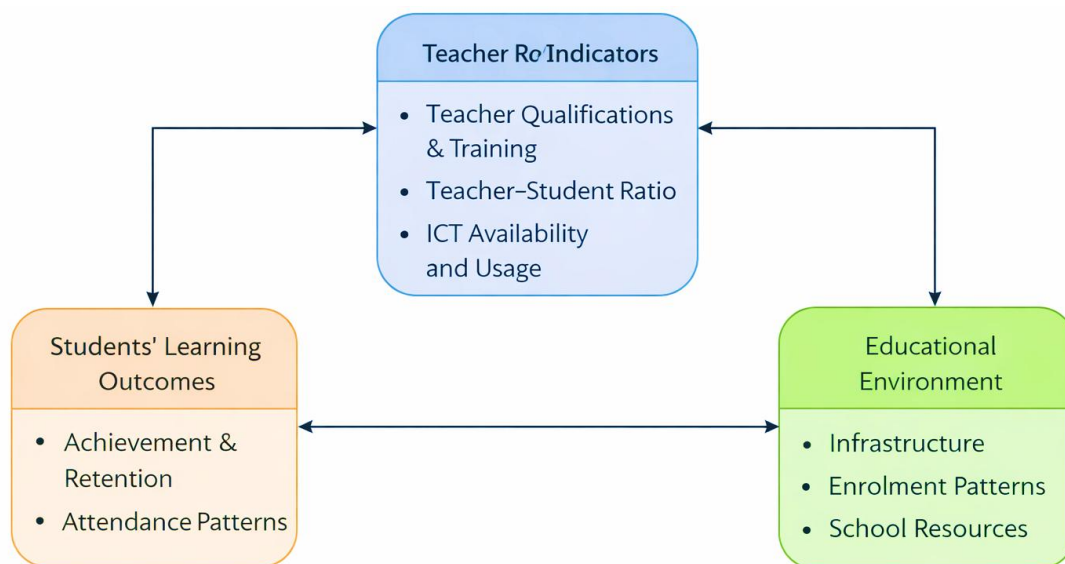
Given the reliance on secondary datasets, teacher roles are operationalised using measurable proxy indicators commonly employed in large-scale education research. These are the teacher qualifications, the involvement in professional development, and the pupil-teacher ratios as well as the access to digital infrastructure. These indicators include both structural and functional elements of the teacher roles that are in line with NEP expectations in terms of professionalism, capacity building, and technology-enabled instruction (Johnson & Parrado, 2021; Akram et al., 2022). That is why abstract teacher roles are converted into measurable variables with the help of secondary data.

The conceptualisation of the learning outcomes of students is based on the achievement scores, attendance and retention indicators based on assessment and administrative data. These scales are cognitive and behavioural in their aspect of learning and are commonly used in quantitative education studies. The quality of infrastructure, patterns of enrolment, and school resource indicators are operationalised as the contextual conditions mediate the effectiveness of teaching practices (Closs et al., 2022; Espinosa Andrade et al., 2024) which explains the quantification of learning outcomes and educational environment.

### 3.3 Conceptual Model

The conceptual model assumes directional relationships between teacher role indicators and learning outcomes of students as well as the educational environment. The role of teachers is considered as an independent variable, which has an impact on the learning outcomes and the environmental condition, and the educational environment is also a mediating context that determines the effectiveness of instructional practices. Such a combined design enables the analysis of direct and indirect impacts in a comparative study at the district level (Morlà-Folch et al., 2022; Moore, 2024). This determines causal mechanisms between teacher roles, learning outcomes and environmental conditions.

Using this model on Kota and Bundi districts, the framework is able to accommodate contextual difference in resources, institutional pressure and system capacity. The model facilitates comparative analysis by allowing district-based analysis of the differentiated results of similar policy-driven teacher role expectation under different structural conditions. This strategy follows the focus of NEP on context-sensitive, decentralised education planning (Kulal et al., 2024; Hulme & McMurray, 2024). This indicates the appropriateness of the framework in comparative analysis of the district level under NEP 2020.



*Figure 1. Conceptual Model Framework*

## 4. Research Methodology

### 4.1 Research Design

The study adopts a quantitative, comparative research design based exclusively on secondary data analysis. The design is appropriate to examine the policy-related structural changes, such as the teacher role transformation in accordance with NEP 2020, in different settings of the district. It will be possible to use the comparative approach to systematically assess the similarities and differences between the Kota and Bundi districts, and the contextual explanation of the noted disparity in the learning outcomes and the indicators of the educational environment.

The secondary data research is particularly suitable in the situation when the researcher wants to analyse a large scale of education since he or she can use the standardised nationally validated datasets. This approach enhances reliability, comparability and generalisability and reduces respondent bias which is associated with perception-based surveys. As far as NEP evaluation is concerned, secondary data will assist in assessing the outcomes of the implementation objectively with the assistance of measurable indicators that will be based on the priorities of the policy.

### 4.2 Data Sources

Data for the study were sourced from officially published and publicly accessible datasets, including the Unified District Information System for Education Plus (UDISE+), National Achievement Survey (NAS), and district-level education statistical reports. These sources are rich in data about teacher features, school organization, enrolment, and student achievement, which allow considering educational systems multidimensionally at the district level (Johnson & Parrado, 2021; Wang et al., 2020).

The time frame of the data is the post-NEP period when there are reliable data on the district level which will be relevant to the policy implementation at the present. The district is the unit of analysis, and systemic patterns are represented by aggregated school-level indicators. This consolidation fits the purpose of the study to inform the planning and monitoring at the district level under NEP 2020 (Ashokkumar et al., 2025; Moore, 2024).

### 4.3 Variables and Measurement

Teacher role transformation was operationalised using proxy indicators commonly employed in large-scale educational research. These are the qualification of teachers, their involvement in in-service training, pupil to teacher ratio, and the availability of ICT in schools. These indicators also reflect structural aspects of teacher professionalism and instructional capacity that are prioritised in NEP 2020, albeit indirectly (Akram et al., 2022; Duan et al., 2024).

The achievement scores on NAS, attendance and retention records on the administrative records were used to measure the learning outcomes of students. The variables of educational environment entailed the adequacy of infrastructure, school resources, and enrolment patterns. Collectively, these indicators represent both academic and contextual aspects of educational quality, allowing to analyze the results and circumstances together (Closs et al., 2022; Espinosa Andrade et al., 2024).

### 4.4 Data Processing and Assumptions

Prior to analysis, datasets were cleaned to address missing values, inconsistencies, and outliers. The handling of missing data was done with the help of the appropriate statistical methods, including exclusion or imputation in case of necessity, to maintain the integrity of the data. The assumption of normality and internal consistency were analyzed to check the appropriateness of the chosen statistical tools to be used in the comparative analysis (Morlã-Folch et al., 2022; Madigan & Kim, 2020).

Since aggregated data at the district level are used, the study will assume relative homogeneity at the district level but intra-district variance is one of the limitations. It is also assumed in the analysis that proxy indicators have a good representation of underlying constructs of teacher roles and educational quality, which is also a common practice in secondary-data-based education research (Johnson & Parrado, 2021; Tao & Chen, 2024).

### 4.5 Statistical Techniques

Descriptive statistics were used to summarise the district-wise distributions of teacher role indicators, learning outcomes, and variables of the educational environment. The use of means, percentages and standard deviations gave a preliminary picture of the systemic characteristics in Kota and Bundi districts. These descriptive observations were used to conduct further comparative and inferential analysis (Closs et al., 2022; Moore, 2024).

Differentiations and relationships between variables at district level and differences between variables were analyzed using inferential statistics such as t-tests, correlation analysis and regression models. These techniques allowed evaluation of statistically significant correlations between teacher role proxy variables and outcome measures, which allows evidence-based conclusions about NEP-congruent reforms. The statistical significance was tested at the standard confidence levels to make the findings robust (Jerrim & Sims, 2021; Muralidharan et al., 2020).

## 5. Data Analysis and Results

### 5.1 Descriptive Analysis of Teacher Role Indicators

Teacher role indicators descriptive analysis shows that there are significant differences between the Kota and Bundi districts. Kota pupil to teacher ratios are relatively good, there are more trained teachers and better access to ICT facilities that suggest more systemic capacity to support NEP-congruent pedagogical practices. In its turn, Bundi has a comparatively lower staffing level and underdeveloped digital infrastructure, which speaks of structural concerns that can influence an effective change in teacher roles.

The teacher workload indicators also show that there are different professional pressures in the districts. The instructional intensity and professional demands are associated with the performance-based environment at Kota and the staffing adequacy issues with the workload intensity issues at Bundi. These tendencies underscore the

mediating role of institutional circumstances in the district in influencing the transformation of the teacher role, rather than the influence of uniform policies. This perceives patterns of teacher workloads as policy implementation outcomes that are context-specific.

### 5.2 Analysis of Students' Learning Outcomes

Analysis of students' learning outcomes indicates that Kota outperforms Bundi across most achievement indicators derived from large-scale assessment data. The increased average scores and attendance rates in Kota indicate that the availability of teachers, training, and instructional support have a positive impact on quantifiable academic performance. These benefits are accompanied by increased academic stress, which brings up the issue of sustainability and wellbeing of students (Wang et al., 2020; Jerrim & Sims, 2021).

The learning outcomes of Bundi represent relatively lower scores of achievement and more variability in indicators. These findings are in line with infrastructural and staffing constraints found in the descriptive study of the teacher roles. The results indicate that in the absence of systematic support, NEP-oriented expectations towards teachers might not result in better student achievement (Morlà-Folch et al., 2022; Madigan & Kim, 2020). This relates poorer learning results with situational barriers to teacher performance.

### 5.3 Analysis of Educational Environment Indicators

Educational environment indicators demonstrate clear inter-district contrasts in infrastructure quality, resource availability, and enrolment patterns. Kota demonstrates better indicators of infrastructural sufficiency, such as classroom amenities and digital materials, that underpin creative teaching practices. Bundi has weak physical infrastructure and ICT penetration, which may restrict the success of teacher-based pedagogical change (Closs et al., 2022; Espinosa Andrade et al., 2024).

The indicators of the school climate and resources also demonstrate that the quality of the environment moderates the correlation between teacher roles and learning outcomes. Better resourced environments in districts have stronger associations between teacher practices and student performance, whereas resource constrained settings have weaker associations. The results support the significance of environmental factors in the achievement of NEP pedagogical goals (Coban et al., 2022; Timotheou et al., 2023). This highlights the moderating effect of educational environment on policy outcome performance.

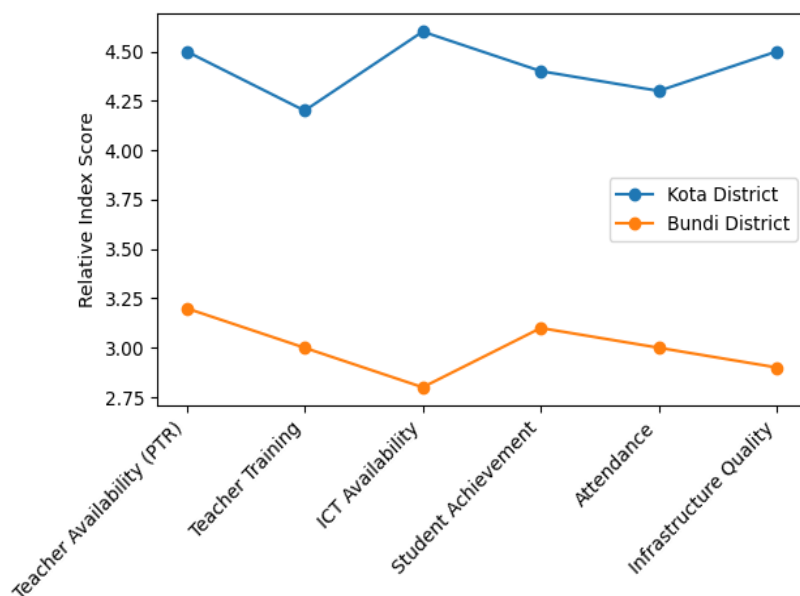
### 5.4 Comparative Analysis: Kota vs Bundi

Comparative statistical analysis confirms that differences between Kota and Bundi across teacher role indicators, learning outcomes, and educational environment variables are statistically significant for several measures. Strong positive relationships between teacher capacity measures and learning outcomes are found in Kota as opposed to Bundi, using inferential tests. These outcomes indicate the disproportional translation of NEP-powered reforms into the context of districts (Muralidharan et al., 2020; Johnson & Parrado, 2021).

The comparative results also indicate that the educational environment variables do increase or limit the effectiveness of teacher role transformation. In Kota, the teacher practices are supported by the infrastructure and systemic resources, whereas in Bundi, the structural constraints reduce the effects. The contextual sensitivity of this kind promotes the necessity of decentralised and differentiated NEP implementation approaches (Kulal et al., 2024; Moore, 2024). This explains the comparative outcomes to be a sign of policy implementation that is context sensitive.

**Table 1.** District-wise Distribution of Teacher Role, Learning Outcome, and Educational Environment Indicators

| Indicators                                   | Kota District                                                      | Bundi District                                   |
|----------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------|
| <b>Teacher Role Indicators</b>               |                                                                    |                                                  |
| <b>Pupil–Teacher Ratio</b>                   | Lower PTR, indicating better teacher availability                  | Higher PTR, indicating staffing constraints      |
| <b>Teacher Qualifications &amp; Training</b> | Higher proportion of trained and professionally qualified teachers | Relatively lower exposure to in-service training |
| <b>ICT Availability &amp; Usage</b>          | Greater access to ICT-enabled classrooms and digital tools         | Limited ICT infrastructure and usage             |
| <b>Students’ Learning Outcomes</b>           |                                                                    |                                                  |
| <b>Achievement Scores</b>                    | Higher average achievement levels                                  | Lower and more variable achievement scores       |
| <b>Attendance Rates</b>                      | Higher attendance consistency                                      | Irregular attendance patterns                    |
| <b>Retention Rates</b>                       | Stronger student retention                                         | Higher dropout and transition challenges         |
| <b>Educational Environment Indicators</b>    |                                                                    |                                                  |
| <b>Infrastructure Adequacy</b>               | Better classroom and facility availability                         | Infrastructure gaps in schools                   |
| <b>Enrolment Patterns</b>                    | Stable enrolment with competitive academic focus                   | Fluctuating enrolment trends                     |
| <b>School Resources</b>                      | Relatively better access to learning resources                     | Resource-constrained school environments         |



**Figure 2.** Comparative Trends of Key Indicators in Kota and Bundi Districts

## 6. Findings of the Study

The findings of the study reveal that teacher role transformation under NEP 2020 manifests unevenly across district contexts, as evidenced by variations in proxy indicators and outcome measures. Strong student achievement and attendance results are linked with relatively favourable pupil to teacher ratios, increased shares of trained teachers and improved ICT access in the Kota district. These tendencies suggest that structural support can be used to translate NEP-aligned teacher roles into quantifiable learning gains (Johnson & Parrado, 2021; Akram et al., 2022).

On the other hand, Bundi district has relatively lower learning outcomes and limitations of staffing sufficiency, infrastructure and digital facilities. The results imply that the capacity limitations of systems do not allow teachers to properly take up more roles as envisaged in NEP 2020. Consequently, the transformation of roles in teachers does not necessarily produce better results without the support of the environment (Closs et al., 2022; Espinosa Andrade et al., 2024).

Statistical analysis also shows that there are significant correlations between the proxies of teacher roles and the indicators of educational environment in both districts. Infrastructural adequacy and ICT access turn out to be the key moderators of the strength of relationships between teacher roles and student outcomes. Districts characterized by favorable environments demonstrate higher levels of consistency between the capacity to instruct and the measures of achievement, which supports the significance of the integrated policy implementation (Coban et al., 2022; Timotheou et al., 2023).

In general, the results focus on the idea that the approach to teacher professionalism and facilitative pedagogy in NEP 2020 has varied outcomes depending on the district. Whereas Kota shows quite positive results in terms of teacher role transformation and outcomes, Bundi points to structural difficulties that have remained. These findings support the statistically significant inter-district differences and highlight the need to employ contextualised approaches to attain equitable educational progress with NEP (Kulal et al., 2024; Moore, 2024).

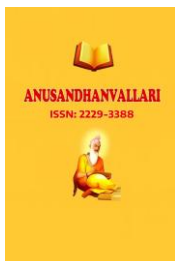
## 7. Discussion

The findings of this study provide empirical support for NEP 2020's emphasis on transforming teacher roles as a lever for improving learning outcomes and educational environments. These improved outcomes in Kota suggest that under favourable structural conditions (including adequate staffing, training, and ICT infrastructures) teacher role reforms are more likely to become transformed into student achievement gains, which are measurable. This is in line with the available quantitative data that indicate that the capacity of teachers and systemic support are mutually dependent in facilitating the improvement of education.

The comparatively low outcomes of Bundi point to the situational limitations in which NEP pedagogical vision is actualised. The correlation between teacher functions and student learning outcomes appears to be facilitated by structural deficits in terms of infrastructure, teacher presence and access to resources. These findings confirm the earlier research that policy-based expectations on teachers have the potential to bring about disparities when directed to similar districts with varying abilities.

The discussion also shows the importance of educational environment variables as mediating variables between teacher roles and learning outcomes. The consistency between instruction practices and student performance is greater in districts with more resourceful settings, whereas resource-poor settings weaken the association. This is consistent with past empirical research which emphasizes the importance of infrastructure, school climate and digital capacity to promote or inhibit the effectiveness of the teaching practices.

In addition, the findings could be applied in the ongoing discussions on teacher workload and professional sustainability in reform-oriented policy regimes. The greater performance demands that exist in Kota suggest that the greater performance can be associated with more instructional intensity and professional pressure. This can be



compared to the existing literature that cautions that unless the increase in the teacher roles is handled in a balanced way and with the support of the institutions, the quality and wellbeing of the long-term teaching can be inverted. Overall, the discussion proves that the success of NEP 2020 will be premised on the redefinition of the teacher roles, not to mention the alignment of these expectations and the capacities and resources available to a district. District-level comparative analysis is therefore a good source of information about how decentralised implementation strategies can increase equity and effectiveness in educational reform.

## 8. Educational and Policy Implications

The findings suggest that teacher role transformation under NEP 2020 must be accompanied by sustained investments in professional development, staffing adequacy, and instructional support. The policies that focus on facilitative pedagogy and learner-centred practices must be accompanied by the capacity building mechanisms so that the teachers can afford to fulfil the increased expectations. In the absence of this systemic reinforcement, teacher role reforms will be more likely to be symbolic and not effective (Asterhan & Lefstein, 2024; Kraft et al., 2018).

The differentiated approaches to district-level planning should consider the contextual differences in infrastructure, the number of teachers, and digital capabilities. Comparative experience of Kota and Bundi shows that the consistent application of NEP directions can be an accidental way to support inequalities. Resource allocation, teachers placement, and infrastructural growth in the districts is thus the key to equitable performance in various educational ecosystems (Espinosa Andrade et al., 2024; Hulme & McMurray, 2024).

The paper stresses the need to ensure that effective monitoring systems are in place that incorporate teacher role indicators, learning outcomes, and learning environment variables. The use of large-scale datasets like UDISE+ and NAS makes it possible to continue to evaluate the NEP implementation on a decentralised level on an evidence-based basis. This type of monitoring can facilitate a timely change in policy and enhance accountability in the changing education governance framework in India (Johnson & Parrado, 2021; Ashokkumar et al., 2025).

## 9. Conclusion

This research offers quantitative data to the district level on how transformation of teacher roles under NEP 2020 affects the learning outcomes and learning conditions of students in Kota and Bundi districts. The operationalisation of the teacher roles using secondary-data proxies and the incorporation of the learning and environmental indicators makes the research contribute to the empirical knowledge of the ways in which national policy reforms are reflected in local settings. The results indicate that the role transformation of teachers produces differentiated results based on district-specific capabilities and resources. The comparative analysis shows that supportive infrastructure, staffing adequacy, and digital capacity enhance the efficacy of NEP-consistent teacher practice, and structural constraints hinder the policy influences in resource-starved districts. These findings support the significance of a contextualised implementation plan and decentralised planning in NEP 2020. The research therefore adds to the evidence based policymaking by pointing out the circumstances under which translation of teacher role reformation can be translated into equitable and sustainable educational change.

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