



Recommended citation for this Article:

Verma, K. (2024). Interdisciplinary education and the evolving role of teachers: a theoretical exploration of NEP 2020's vision. *Pedagogy of Learning*, 10 (3&4), 09-18. Available at: <http://pedagogyoflearning.com>

Interdisciplinary Education and the Evolving Role of Teachers: A Theoretical Exploration of NEP 2020's Vision

Kumud Verma

Doctoral Research Scholar & Assistant Regional Director, Indira Gandhi National Open University, Bhopal, Madhya Pradesh (India), Email: kumudverma@ignou.ac.in

Corresponding Author: Kumud Verma, e-mail id: kumudverma@ignou.ac.in

Article Publication Date: 30 October 2024

Article DOI: [10.46704/pol.2024.v10i0304.002](https://doi.org/10.46704/pol.2024.v10i0304.002)

Abstract: The National Education Policy (NEP) 2020 presents a transformative vision for interdisciplinary education in India, emphasizing holistic and multidisciplinary approaches. Central to this vision are the evolved pedagogical expectations and redefined roles of teachers. This paper critically examines NEP 2020's interdisciplinary provisions and their implications for teachers' roles, pedagogical practices, and professional development. Grounded in constructivist and transformative learning theories, the study highlights the shift in teachers' roles from knowledge dispensers to facilitators and collaborators, positioning them as key drivers of interdisciplinary reforms, aligning the learning outcomes with addressing complex real-world challenges. Findings highlight the imperative need to equip teachers with skills and competencies aligned with the redefined pedagogical expectations to ensure their readiness for these transformative roles. Key implications include prioritizing teacher development, fostering collaborative practices, ensuring adequate resource allocation, and leveraging technology to support teachers in fulfilling their evolved roles under NEP 2020's interdisciplinary education framework.

Keywords: NEP 2020, Interdisciplinary Education, Teachers Roles

INTRODUCTION

Education in the 21st century demands a shift from traditional, discipline-specific methods to interdisciplinary approaches. NEP 2020 drives this transformation by prioritizing holistic, multidisciplinary and values-based education that fosters critical thinking, problem-solving, and adaptability, enabling students to integrate knowledge across disciplines and address complex global challenges. NEP 2020 positions teachers at the heart of this transformation, underscoring their evolving roles as facilitators of interdisciplinary learning and reflective practices, breaking traditional disciplinary boundaries. This shift transcends pedagogy, bringing substantial changes to professional practices, classroom dynamics, and the structural and institutional frameworks of teacher education. The successful implementation of this transformative shift in teachers' roles depends upon a nuanced understanding of the changing pedagogical expectations brought in by the NEP 2020 and their implications of teachers' roles.

This paper critically examines NEP 2020's provisions on interdisciplinary education, analysing their implications for pedagogical expectations and teachers' roles. Grounded in constructivist, transformative learning, and sociocultural theories, it employs qualitative methodology, synthesizing

policy analysis and literature review. The Paper explores the transformative impact of interdisciplinary education on classroom practices, curriculum design, and teacher-student dynamics, highlighting the competencies teachers need to fulfil their evolved roles as facilitators and collaborators of learning process. The paper provides actionable recommendations to bridge the gap between policy and practice, ensuring the effective implementation of NEP 2020's interdisciplinary framework. By addressing these critical areas, it contributes significantly to the discourse on strengthening teacher capacities in India's evolving educational landscape.

THEORETICAL FRAMEWORK: TEACHERS' EVOLVING ROLES UNDER NEP 2020

This study is grounded in Constructivist Learning Theory, Transformative Learning Theory, and Sociocultural Theory. These theoretical perspectives illuminate the transformative demands on educators in interdisciplinary contexts and offer insights into evolving pedagogical expectations and teachers' roles, providing a robust foundation for examining the shifts in teaching practices and educational reforms envisioned under NEP 2020.

Constructivist Learning Theory emphasizes that learners build knowledge through meaningful, contextual experiences and reflection, aligning closely with interdisciplinary education's emphasis on synthesizing knowledge across domains (Dewey, 1938). It positions teachers as facilitators who guide inquiry, foster collaboration, and create inclusive environments for real-world learning and problem-solving (Mishra, 2023). Key principles, such as inquiry-based and experiential learning, support interdisciplinary education by promoting critical thinking, problem-solving, and deeper integration of knowledge (Ultanir, 2012; Li, 2024). Mezirow's Transformative Learning Theory (Kuriakou, 2023) highlights the importance of critical reflection and perspective transformation, aligning with interdisciplinary education's goals.

By challenging learners' assumptions through "disorienting dilemmas," it fosters worldview shifts, enabling learners to integrate diverse perspectives and address real-world challenges (Şahin et al., 2016; Bass et al., 2023). Teachers facilitate this through methods like problem-based learning and reflection, fostering critical thinking, creativity, and socio-cultural awareness. Sociocultural Theory associated with Vygotsky, highlights the role of social interaction, cultural tools, and collaborative learning in cognitive development. Its key principles such as 'scaffolding' and the 'Zone of Proximal Development' (ZPD) align with interdisciplinary education's collaborative and contextual learning goals. The theory visualizes teachers as mediators, helping students connect abstract concepts across disciplines while utilizing cultural tools and technologies to enhance understanding (Cole & Wertsch, 1996).

Together, these frameworks redefine teachers as facilitators, collaborators, and innovators, aligning with NEP 2020's vision for interdisciplinary education. By fostering reflective, collaborative, and inclusive practices, they empower teachers to create dynamic learning environments that prepare students to apply learning to real world contexts.

CONCEPTUAL FRAMEWORK: TEACHERS' EVOLVING ROLES UNDER NEP 2020

This paper examines the interplay between the National Education Policy (NEP) 2020 and the evolving roles of teachers in interdisciplinary education reform. NEP 2020 redefines India's educational landscape by emphasizing flexible curricula, experiential learning, and the integration of arts, sciences, and vocational education. Interdisciplinary education, central to this vision, integrates concepts, methods, and perspectives from multiple disciplines to address complex issues holistically. It dissolves rigid disciplinary boundaries, fosters active learning, and promotes critical thinking, collaboration, and problem-solving, equipping learners with skills for real-world challenges and cognitive flexibility. Under NEP 2020, teachers' roles are reimagined beyond traditional subject expertise. They serve as facilitators, collaborators, innovators, and mentors, guiding learners to connect across disciplines. This transformation is operationalized through project-based learning, collaborative curriculum design, and reflective teaching, fostering holistic understanding and interdisciplinary problem-solving. The framework highlights how NEP 2020's goals drive shifts in teaching practices, influencing educational outcomes and fostering professional growth. Teachers are encouraged to adopt interdisciplinary

strategies that enhance students' problem-solving skills and adaptability while promoting their own professional satisfaction through innovation and collaboration. By integrating interdisciplinary education with teachers' evolving roles, the framework offers insights into NEP 2020's transformative potential. It maps the dynamic relationship between policy goals, teaching practices, and learning outcomes, providing actionable strategies for maximizing the impact of interdisciplinary education reforms.

RESEARCH METHODOLOGY

This study employs a qualitative, theoretical framework to analyze NEP 2020's interdisciplinary provisions and their impact on teachers' roles. It employs methods like policy analysis, literature review, and thematic analysis which enable a comprehensive exploration of complex, policy-driven phenomena. Using secondary data, this approach provides nuanced insights into educational reform, teacher empowerment, and interdisciplinary education implementation, aligning with the study's objectives.

Findings

1. NEP 2020's Key Provisions on Interdisciplinary Education:

School Level:

- **Flexible and Multidisciplinary Curriculum:** Integrates interdisciplinary approaches through a four-stage framework, emphasizing experiential learning at the middle level and flexible subject choices at the secondary level (Articles 4.1–4.2).
- **Holistic Development and Skill Building:** Focuses on critical thinking, creativity, digital literacy, and ethical citizenship, with cross-curricular integration of arts, sports, and culture (Articles 4.4–4.28).
- **Multilingualism and Cultural Integration:** Promotes Indian languages, classical knowledge systems, and innovative language teaching methods (Articles 4.11–4.21).
- **Flexible Courses and Revamped Assessments:** Uses modular structures and competency-based assessments to evaluate higher-order skills, with PARAKH ensuring standardized learning outcomes (Articles 4.9–4.41).

Higher Education Institutions (HEIs):

- **Interdisciplinary Pedagogical Models:** Combines STEM with arts and humanities, fostering critical thinking, creativity, employable skills, value-based and environmental education (Articles 11.2–11.8).
- **Flexible Curricular Structures:** Modular programs with multiple entry-exit points and an Academic Bank of Credit to personalize learning (Articles 11.5, 11.9–11.10).
- **Promoting Multidisciplinary Research:** Establishes MERUs and the National Research Foundation (NRF) to drive innovation, with start-up incubation centers and technology hubs strengthening industry-academic linkages (Articles 11.6–11.12).
- **Cross-Cutting Provisions:** Emphasizes ICT integration, Indian art and culture, and lifelong learning ecosystems to advance interdisciplinary paradigms, aligning education with 21st-century skills, fostering global competitiveness, and cultural awareness (NEP 2020, Part III).

2. Reshaping Classroom Practices

Interdisciplinary education shifts from teacher-led instruction to student-centred learning. This shift is characterized by:

- **Collaborative Environments:** Group projects and cross-disciplinary discussions promote teamwork and shared knowledge construction.

- Inquiry-Based Learning: interdisciplinary Lesson planning encourage exploration and application of knowledge to real-world, multidimensional problems.
- Experiential Learning: Focus on real-world application fosters holistic understanding.

Implications for Teachers' Roles:

- Facilitators of Learning: Guide students in making interdisciplinary connections through inquiry and collaboration.
- Curriculum Designers: Develop integrated, flexible curricula aligned with real-world challenges.
- Collaborators: Partner with colleagues, parents, and industry experts for interdisciplinary projects.
- Lifelong Learners: Engage in professional development to stay updated with emerging interdisciplinary pedagogies.
- Innovators in Pedagogy and Technology: Use modern teaching strategies and digital tools to enhance interactive learning.
- Mentors and Change Agents: Advocate for the ethical application of interdisciplinary knowledge and systemic reforms.
- Assessment Innovators: Create assessments to evaluate integrated knowledge and critical thinking.

3. *Reshaping Curriculum Design*

NEP 2020 emphasizes integration, flexibility, and real-world relevance, reshaping curriculum design to include:

- Blending Disciplines: STEM fields merge with arts and humanities, fostering creativity and critical thinking.
- Thematic Learning: Inquiry-based projects explore challenges like sustainability, integrating disciplines such as science, ethics, and economics.
- Contemporary Topics: Includes Artificial Intelligence, Global Citizenship, and local knowledge systems.
- Flexible Structures: Thematic units replace rigid boundaries, connecting multiple disciplines.
- Technology Integration: Enables virtual collaborations, interactive projects, and resource access, transcending traditional classrooms.
- Innovative Assessments: Focuses on competency-based evaluations like portfolios, presentations, and project-based tasks to measure interdisciplinary skills.

Implications for Teachers' Roles:

- Curriculum Co-Creators: Collaboratively design flexible, integrated curricula.
- Facilitators of Interdisciplinary Learning: Guide students in making cross-disciplinary connections.
- Collaborative Practitioners: Work with peers and stakeholders to develop interdisciplinary teaching strategies.
- Technology-Adaptive Innovators: Utilize digital tools for engaging, project-based learning.
- Culturally Responsive Educators: Integrate local traditions, languages, and knowledge for inclusive learning.

- Mentors and Guides: Support students in applying interdisciplinary knowledge ethically.
- Assessment Innovators: Design creative assessments for evaluating interdisciplinary competencies.
- Continuous Learners: Stay updated with interdisciplinary pedagogies and innovations.

4. Reshaping Student-Teacher Dynamics

NEP 2020 fosters collaboration, mentorship, and real-world engagement, reimagining teacher-student dynamics through:

- Collaborative Knowledge Construction: Classrooms evolve into shared spaces for interdisciplinary projects, fostering teamwork and mutual respect.
- Empowered Student Participation: Learners explore, question, and connect interdisciplinary concepts, fostering critical thinking, reflection, and autonomy.
- Teachers as Mentors: Support students' intellectual, socio-emotional, and ethical development through real-world challenges and interdisciplinary applications.
- Real-World Engagement: Classroom activities connect directly to societal challenges and professional applications, preparing students for civic responsibilities and global contexts.

Implications for Teachers' Roles:

- Facilitators of Collaborative Learning: Teachers manage group-based interdisciplinary activities, promoting teamwork, shared responsibility, and collective problem-solving.
- Promoters of Autonomy and Critical Thinking: They encourage independent inquiry, enabling students to explore connections between disciplines and reflect on complex ideas.
- Mentors and Guides: Teachers provide intellectual and emotional support, assisting students in navigating ethical dilemmas and real-world challenges.
- Designers of Adaptive Learning Experiences: Flexible curricula, tailored to students' interests and interdisciplinary goals, become a central responsibility.
- Bridges Between Classroom and Real World: Teachers connect academic content to societal needs and professional relevance, emphasizing the importance of civic responsibility and practical application.
- Assessment Innovators: Competency-based and project-oriented evaluations assess interdisciplinary knowledge, critical thinking, and applied skills effectively.
- Cultural Mediators: Teachers integrate diverse cultural perspectives, ensuring inclusivity, respect, and relevance to students' backgrounds.
- Lifelong Learners: Ongoing professional development equips teachers to stay attuned to evolving interdisciplinary pedagogies and global educational trends.

Thus, NEP 2020 redefines teachers' roles in curriculum and pedagogy, emphasizing collaboration and interdisciplinary partnerships. Teachers' roles evolve into mentors and facilitators, guiding inquiry-driven practices that foster critical thinking, creativity, and cultural awareness. These evolved roles align with NEP 2020's vision of holistic, inclusive education, preparing for sustainable development.

Analysis: The review of NEP 2020 highlights its emphasis on redefining teachers' roles to align with transformative educational reforms. Teachers are envisioned as facilitators, mentors, and co-creators of knowledge, fostering a dynamic and inclusive educational ecosystem. The policy empowers educators beyond traditional roles positioning them as pivotal drivers of NEP 2020's interdisciplinary reforms for an inclusive and future-ready education system. The Analysis of the findings highlight major transformation in pedagogical expectations and transition in teachers' roles.

Structural Shifts in Teachers' Roles

1. Integration of Interdisciplinary Pedagogies: Teachers integrate arts, sciences, humanities, and technology, emphasizing competency-based learning and innovative assessments.
2. Transformation in Classroom Practices: A shift to student-centred methodologies for promoting experiential, inquiry-based, and collaborative learning.
3. Innovations in Curriculum Design & Assessment: Interdisciplinary and Modular curricula that incorporate themes like sustainability, AI, and global citizenship in. Teachers embed these themes through project-based and competency-driven assessments.
4. Reshaped Teacher-Student Dynamics: Teachers foster participatory, collaborative learning spaces, linking academic content to societal challenges.
5. Emphasis on Professional Development (CPD): CPD institutionalized under NEP 2020 ensures teachers stay adaptive to pedagogical and technological advancements.

Key Themes in Teachers' Evolving Roles

1. Facilitators of Holistic Development: Teachers integrate cognitive, socio-emotional, and ethical dimensions, fostering multilingual and cultural integration.
2. Collaborative Educators: Teachers engage in teamwork and interdisciplinary projects, promoting shared learning.
3. Mentors and Guides: They nurture socio-emotional growth, empathy, and active citizenship, shaping students' holistic development.
4. Culturally Responsive Educators: By incorporating local traditions and languages, teachers ensure education remains relevant and inclusive.
5. Innovators in Assessment Practices: Emphasis on competency-based and project-driven assessments fosters critical thinking and creativity.
6. Technology-Driven Leaders: ICT tools enable dynamic, interactive, and interdisciplinary learning environments.
7. Lifelong Learners: Teachers embody lifelong learning through CPD, enhancing their skills and pedagogical strategies.

Thus NEP 2020 reimagines teachers' roles, positioning them as mentors and facilitators at the forefront of interdisciplinary education reforms. Moving beyond traditional knowledge transmission, teachers guide inquiry-driven, interdisciplinary practices that foster collaboration across disciplines and stakeholders, creating dynamic, shared learning environments. By bridging disciplines and emphasizing participatory learning, they empower students to think critically, create innovatively, and solve real-world problems. This redefined role aligns with NEP 2020's vision of holistic, inclusive, and future-ready education for meaningful learning experiences. The findings underscore key pedagogical expectations on teachers:

- Interdisciplinary Pedagogies: Training is essential for integrating multiple disciplines to support holistic learning.
- Digital Proficiency: Teachers need ICT skills to create interactive, technology-driven learning environments.
- Collaboration: Strong collaboration skills enable teachers to co-design curricula with peers and stakeholders.
- Cultural and Ethical Sensitivity: Training in cultural integration and ethical leadership prepares teachers for diverse educational contexts.

NEP 2020 acknowledges the evolved professional role of teachers under interdisciplinary reforms and makes provisions to empower them through systemic measures. These include Continuous Professional Development (CPD), offering annual 50-hour training in interdisciplinary methods, technology integration, and competency-based assessment, and the National Professional Standards for Teachers (NPST), which establish clear benchmarks for teacher growth. Additionally, NEP 2020 emphasizes recognition and respect through merit-based promotions to elevate the teaching profession and advocates for autonomy by granting teachers the flexibility to design innovative, student-centered curricula. However, fully preparing teachers for these roles requires more coordinated efforts among teachers, teacher educators, and the broader education system. Strengthening collaboration and aligning teacher education programs with these reforms is crucial to ensure teachers can effectively meet the demands of NEP 2020's transformative vision.

SUMMARY & DISCUSSION

The findings of this study underscore NEP 2020's transformative vision, which reimagines teachers as facilitators, collaborators, mentors, and innovators. This paradigm shift moves teachers from traditional knowledge dispensers to dynamic leaders of holistic, interdisciplinary education. In these roles, teachers are equipped to foster critical thinking, creativity, collaboration, and social responsibility, preparing students to meet the challenges of an interconnected and complex world.

Key shifts in teachers' roles include guiding inquiry-based and experiential learning, integrating interdisciplinary curricula, and addressing students' intellectual, emotional, and social development. NEP 2020 also emphasizes continuous professional development (CPD), equipping teachers with skills in interdisciplinary pedagogy, ICT integration, and innovative assessment practices. Teachers are tasked with creating culturally responsive and inclusive learning environments, leveraging digital tools to enhance engagement, and designing assessments that prioritize critical thinking and problem-solving over rote learning (Jia et al., 2024).

These evolving definitions of teacher's role align closely with principles derived from constructivist, transformative, sociocultural, and systems theories used as a foundational framework for this Paper. This aligns with constructivist learning theory, which positions teachers as mediators who facilitate collaborative, inquiry-driven learning experiences, fostering deep engagement and critical thinking and equipping students to effectively address real-world challenges (Venkadeswaran & Ramanathan, 2019). The findings also align with the Transformative learning theory highlighting the significance of interconnected curricula and critical reflection encouraging students to challenge assumptions and explore complex issues.

The policy's emphasis on socio-emotional mentorship aligns with sociocultural theory, highlighting the role of socio-cultural contexts and supportive student-teacher relationships in learning fostering inclusive and contextually relevant environments for diverse learners. From a systems theory perspective, teachers play a pivotal role within the educational ecosystem, empowering them through collaboration, autonomy, and strategic interventions, is central to addressing systemic challenges such as resource limitations and institutional

Empirical evidence highlights the synergy between interdisciplinary educational approaches, evolving teacher roles, and holistic learning outcomes. Teachers acting as facilitators, collaborators, and mentors foster critical thinking, creativity, and socio-emotional resilience (Ahmedi et al., 2023; Jia et al., 2024). Integrating curricula and breaking disciplinary silos enhance holistic understanding and ethical development (Jumaah, 2024; Ahmedi et al., 2023). Innovative assessments like project-based portfolios and peer evaluations promote the application of interdisciplinary knowledge (Lim & Renshaw, 2001; Li, 2024). NEP 2020's 50-hour CPD mandate is supported by the research (Rahmatirad, 2020; Kuriakou, 2023) on the benefits of continuous professional development for enhancing interdisciplinary teaching and adaptability.

These findings demonstrate that NEP 2020's vision for teachers' evolving roles is strongly supported by empirical research and theoretical frameworks. By positioning teachers as facilitators, collaborators,

mentors, and innovators, the policy equips educators to lead transformative educational practices. The alignment of NEP 2020 with constructivist, transformative, and sociocultural principles highlights its potential to create dynamic, inclusive, and real-world-relevant learning environments. Furthermore, these shifts in roles prepare teachers to address contemporary educational challenges, such as interdisciplinary complexity and cultural inclusivity, while fostering students' intellectual, emotional, and ethical development. By emphasizing continuous professional development and systemic collaboration, NEP 2020 positions teachers as central agents of change in delivering 21st-century education.

IMPLICATIONS OF THE FINDINGS

The findings of this study emphasize key implications for implementing NEP 2020's interdisciplinary vision, requiring transformations in teacher preparation, professional development, and systemic support:

1. **Redefining Teacher Roles:** Teachers must evolve from subject-specific experts to interdisciplinary facilitators who integrate diverse pedagogies, technology, and real-world applications to promote critical thinking and problem-solving.
2. **Collaboration and Community Engagement:** Effective interdisciplinary education depends on teachers fostering collaborative relationships with colleagues, parents, and community stakeholders to co-design and deliver integrated curricula.
3. **Professional Development:** Continuous self-assessment and targeted professional development are vital for teachers to adapt their practices to evolving educational paradigms and meet diverse learner needs.
4. **Innovative Pedagogy and Assessment:** Curriculum innovation and advanced assessment methods, such as project-based portfolios and competency-based evaluations, are necessary to foster creativity and measure interdisciplinary integration.
5. **Inclusivity and Accessibility:** Equity-focused practices and Universal Design for Learning (UDL) ensure accessible and culturally relevant education, addressing the needs of diverse learners.
6. **Leadership and Advocacy:** Teachers must act as leaders and advocates for systemic change, influencing policy and institutional practices to support interdisciplinary education.
7. **Global and Local Integration:** Embedding cultural dynamics into curricula connects local learning to global challenges, preparing students for complex, interconnected realities.
8. **Systemic Support:** Realizing NEP 2020's vision demands robust infrastructure, resource allocation, and collaborative frameworks that align policies with practical needs.

RECOMMENDATIONS

For Teachers

- Shift to student-centred roles to foster an environment that encourages critical thinking, creativity, and problem-solving.
- Develop interdisciplinary lessons and collaborate with peers for enriched learning experiences.
- Engage in lifelong professional development to adapt to innovative teaching practices.
- Foster inclusive, equitable classrooms by addressing diverse needs and integrating cultural perspectives.
- Strengthen community engagement by working with stakeholders to support learning and future challenges.

For Teacher Educators

- Revamp Training Curricula by integrating interdisciplinary pedagogies, digital literacy, and competency-based assessment strategies into teacher training programs.
- Promote Reflective Practice by providing tools and strategies for self-assessment and adaptability to address diverse classroom needs.
- Strengthen Mentorship Programs by establishing systems that enable teachers to act as mentors and socio-emotional guides, enhancing student well-being and engagement.
- Encourage Lifelong Learning by develop structured CPD frameworks to support ongoing professional growth aligned with NEP 2020's vision.

For Policy Makers

- Provide Systemic Support by ensuring access to resources like technology, training facilities, and interdisciplinary materials to support teachers' evolving roles.
- Strengthen Teacher Education Programs by aligning training institutions objectives with NEP 2020's goals for interdisciplinary and holistic education.
- Develop Incentive Mechanisms by recognizing and rewarding teachers for innovative, inclusive, and student-centred practices.
- Foster Collaboration by promoting partnerships among schools, higher education institutions, communities, and industries to enhance interdisciplinary teaching and learning.

CONCLUSION

NEP 2020 redefines teachers as facilitators, collaborators, mentors, and innovators, emphasizing their pivotal role in interdisciplinary education reform. Grounded in foundational theories, these reforms promote inquiry-driven pedagogy, socio-emotional mentorship, cultural inclusivity, and sustainable development ethics. The success of NEP 2020 hinges on teachers leading interdisciplinary education to foster holistic, inclusive, and values-driven learning. This transition demands that teachers transcend traditional expertise, adopt interdisciplinary competencies, implement innovative pedagogy, and address systemic challenges. Empowering teachers for these expanded roles require strategic interventions, including restructuring teacher education programs, continuous professional development, adequate budgetary support, and robust infrastructure, technology, and collaborative frameworks. Aligning policy with practical needs and investing in capacity building are essential for teacher empowerment. This study underscores the need for comprehensive teacher development, integrating interdisciplinary competencies into professional identity and practice to realize NEP 2020's transformative vision. Future research should investigate teachers' experiences with interdisciplinary pedagogy, especially in resource-constrained settings. Comparative and longitudinal studies could provide valuable insights to improve teacher preparation programs and sustain the ongoing reforms of NEP 2020.

The success of NEP 2020's interdisciplinary vision lies in empowering teachers as dynamic facilitators, collaborators, and mentors. By fostering innovation and providing systemic support, NEP 2020 establishes the foundation for an education system that equips future generations to navigate the complexities of an interconnected and evolving world. Teacher empowerment is the cornerstone of this reform, ensuring its sustainability and long-lasting impact for generations to come.

REFERENCES

- Ahmedi, V., Kurshumlija, A., & Ismajli, H. (2023). Teachers attitudes towards constructivist approach to improving learning outcomes: the case of Kosovo. *International Journal of Instruction*, 16(1), 441-454. 10.29333/iji.2023.16124a

- Bass, M., Dompierre, K. A. B., & McAlister, M. (2023). Creating transformative interdisciplinary learning opportunities for college students. *Journal of Transformative Education*, 21(1), 118-137.
- Cole, M., & Wertsch, J. V. (1996). Beyond the individual-social antinomy in discussions of Piaget and Vygotsky. *Human development*, 39(5), 250-256.
- Dewey, J. (1938). *Experience and Education*. Kappa Delta Pi. Kindle edition. <https://doi.org/10.1177/15413446211066934>
- Jia, X., Wu, C., Li, Y., & Xue, L. (2024). Interdisciplinary perspectives on education and society: bridging theory and practice. *Communications in Humanities Research*, 32, 227-232. DOI: 10.54254/2753-7064/32/20240045
- Jumaah, F. M. (2024). Exploring constructivist learning theory and its applications in teaching English. *The American Journal of Social Science and Education Innovations*, 6(08), 7-19. <https://doi.org/10.37547/tajssei/Volume06Issue08-02> .
- Kuriakou, G. (2023). Transformative learning in formal schools. *International Journal for Innovation Education and Research*, 11(11), 48-52. <https://doi.org/10.31686/ijer.vol11.iss11.4176>
- Li, Jiameng. (2024). Effective strategies for interdisciplinary integration in STEAM curriculum design. *Transactions on Social Science, Education and Humanities Research*, 8 (2024): 99-105. <https://wepub.org/index.php/TSSEHR/article/view/1960/2168>
- Lim, L., & Renshaw, P. (2001). The relevance of sociocultural theory to culturally diverse partnerships and communities. *Journal of Child and Family studies*, 10, 9-21. https://www.academia.edu/download/85982469/a_3A101662543256720220516-1-kej0s.pdf
- Ministry of Education, Government of India (2020). *National education policy 2020*.
- Mishra, N. R. (2023). Constructivist approach to learning: an analysis of pedagogical models of social constructivist learning theory. *Journal of Research and Development*, 6(01), 22–29. <https://doi.org/10.3126/jrdn.v6i01.55227>
- Rahmatirad, M. (2020). A review of socio-cultural theory. *Siasat*, 5(3), 23-31.
- Şahin, M., Erişen, Y., & Çeliköz, N. (2016). The transformational learning of three adult academicians. *Mediterranean Journal of Humanities mjh.akdeniz.edu.tr VI/1* (2016) 299-307. 10.13114/MJH.2016119306
- Ültanır, E. (2012). An epistemological glance at the constructivist approach: Constructivist learning in Dewey, Piaget, and Montessori. *International journal of instruction*, 5(2). P 195-212. www.e-iji.net Microsoft Word - iji_2012_2_11.doc
- Venkadeswaran, N., & Ramanathan, S. (2019). The constructivist approach in English language teaching: a psychological review. *Literary Endeavour*, 10(3). 485-489.
