A STUDY OF PROSPECTIVE IMPLICATIONS OF NEP 2020 AMONG TEACHER EDUCATORS OF WESTERN REGION OF THE INDIA

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A Study of Prospective Implications of NEP 2020 among Teacher Educators of Western Region of the India

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PREFACE

The education system in India, as highlighted by various committees through evidence-based reports, requires significant transformation, increased awareness, and the implementation of new reforms in both general education and teacher education. With the evolving needs of learners, there is a corresponding demand for substantial changes in teachers' roles, competencies, and professional practices. This will help in achieving the aims and objectives of a New India. Treating the roots of the plant will help to grow the plant fast, healthy and wide along with treating the leaves. This is possible only when education moves out of the clutches of and exclusive focus on roots of education means teacher education.

After independence, successive committees and commissions and policies recognized the critical importance of developing comprehensive awareness and deep understanding in the domain of teacher education.

The National Education Policy (NEP) 2020 calls for a transformation of teacher preparation programmes in alignment with its vision of quality, inclusivity, and holistic development. One of the key reforms includes the introduction of a four-year integrated B.Ed. programme as the minimum qualification for teaching, along with a strong emphasis on multidisciplinary education, competency-based learning, and continuous professional development of teachers.

The policy further stresses the need to orient teacher educators and pupil teachers through structured induction programmes, curriculum reforms, and sustained professional engagement with the core principles of NEP 2020. It advocates the integration of Indian knowledge systems, inclusive practices, and the effective use of educational technology within teacher education curricula. In this context, workshops, seminars, internships, and school-based experiences are essential in translating policy awareness into meaningful classroom practices.

Hence, this study reports the outcome of a NCERT Sponsored Research Project entitled, **"A Study of Prospective Implications of NEP 2020 among Teacher Educators of Western Region of the India.".** which focuses on the awareness and attitude along with perception of teacher educators of western region of India. Thus, this report, is a humble attempt to understand, the Prospective Implications of NEP 2020 among Teacher Educators.

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Acronyms

ABC	Academic Bank of Credits
AI	Artificial Intelligence
AR	Augmented Reality
B.Ed.	Bachelor of Education
CBCS	Choice Based Credit System
CG	Chhattisgarh
CPD	Continuous Professional Development
DIET	District Institute of Education and Training
DIKSHA	Digital Infrastructure for Knowledge Sharing
FIG.	Figure
GJ	Gujarat
HECI	Higher Education Commission of India
HEIs	Higher Education Institutions
HoD	Head of Department
IKS	Indian Knowledge System
ITEP	Integrated Teacher Education Programme
M.Ed.	Master of Education
MH	Maharashtra
MP	Madhya Pradesh
NCF	National Curriculum Framework
NCF-SE	National Curriculum Framework for School Education
NCFTE	National Curriculum Framework for Teacher Education
NCTE	National Council for Teacher Education
NEP	National Education Policy
NPST	National Professional Standards for

	Teachers
NTA	National Testing Agency
RIE	Regional Institute of Education
SCERT	State Council of Educational Research and Training
SD	Standard Deviation
SWAYAM	Study Webs of Active–Learning for Young Aspiring Minds
TE	Teacher Education
TEIs	Teacher Education Institutions
TEs	Teacher Educators
UNESCO	United Nations Educational, Scientific and Cultural Organization
UT	Union Territories
VR	Virtual Reality

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EXECUTIVE SUMMARY

The new National Educational Policy 2020, drawing the new changes in the education and teacher education after a long time in history of education. Previously, too much recommendations and suggestions were initiated by various committees and commissions about the need for changes in the teacher education. The new policy is trying to do these changes and initiating new era in the field of education. The present study stamps to study how much teacher educators of western region are aware about these reforms recommended and suggested in the NEP 2020, their attitude toward these reforms. This study also focuses on the Strengths, Weaknesses, Opportunities and Challenges teacher educators feel in the reforms and in the way of implementation of NEP 2020. This study is carried out in the western region (states Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, Goa) of the country.

Objective of Study

The research study was guided by the following objectives:

- To study the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020.
- To study the attitudes of teacher educators of Western Region of India towards reforms envisioned in NEP 2020, in teacher education.
- To investigate the perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.
- To study the preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020, as perceived by Heads of TEIs and State Level Functionaries of Western Region of India.
- To analyse Strengths, Weaknesses, Opportunities and Challenges (SWOC), in the implementation of NEP 2020 in teacher education.

Methodology of Study

Study is based on descriptive survey method. Sample of the study consists of 167 teacher educators and 10 Head of the TEIs of western region of India.

Sample

The study was intended to be conducted in the western region (Madhya Pradesh, Gujarat, Chhattisgarh, Maharashtra, Goa, and) of India. In the present study, approximately 167 teacher educators from 12 TEIs of different states of the country has been selected as a sample. Sample was taken with the help of Stratified random sampling technique. These 167 (teacher educators) 12 TEIs. samples will comprise a heterogeneous group of teachers among teacher educational institutions of the western region i.e. teacher educators working in DIETs, SCERTs, IASEs, Affiliated institutes, University Departments of Central, State, Deemed, or private university.

Research Tools

- **Awareness Scale**
- **Attitude Scale**
- **Questionnaire for teacher educators**
- **Interview Schedule for Head of The Institute/Department**

In the present study after the data collection, some personal interviews has been conducted with the selected samples to analyse and cross-examine their opinions and their prospect for future implications of national education policy 2020 in the western region states, as well as in India. Since national education policy is highly beneficial for the present educational system like digital education, artificial intelligence, choice-based Credit System, flexible mode and many more things which are matters of concern for upcoming educational society.

Major Findings of the Study

Major findings related to objective 1 (To study the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020)

1. The average ratings for all 25 assertions of awareness scale range from 3.55 to 3.88 out of 5 which means that teacher educators usually agree with or have a positive view of the changes or reforms recommended by NEP 2020 for teacher education.
2. The teacher educators of the western region of India have a comprehensive level of awareness of almost all the major provisions under National Education Policy (NEP) 2020 since the majority of the teacher educators are fully aware or aware with the statements related to the provisions under NEP 2020. The areas in which teacher educators are Fully aware and Aware are-
    - Introducing the 4-year Integrated Teacher Education Programme (ITEP).

- Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).
- Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.
- Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.
- Emphasis on developing 21st century skills in Teacher Education Programmes.
- Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.
- Shift from content-based curriculum to competency/outcome-based curriculum.
- Development of National Curriculum Framework for Teacher Education (NCFTE).
- Emphasising experiential learning in curriculum transaction
- Emphasis of ITEP curriculum with specialization at 4 levels.
- Sustained integration of internship & extended school immersion in TE programme.
- Development of National Professional Standards for Teachers (NPST).
- Establishment of Academic Bank of Credits (ABC) in HEIs.
- Promotion of SWAYAM & DIKSHA platform for professional development of teachers.
- Scope for Continuous Professional Development (CPD) of Teachers.
- Recommendations for NCF -SE
- Provision of Career Progression of Teachers.
- Provision of Choice Based Credit System (CBCS) to student.
- Provision of Multiple Entry and Multiple Exit options.
- Use of Arts and Sports integrated pedagogy.
- Extensive use of Technology like AR, VR, AI and Online Teaching.
- The areas in which teacher educators are partially aware or Not aware are-
- Recommendations for NCF – FS
- Setting up Higher Education Commission India (HECI) as apex body with four verticals.
- Establishment of Light but Tight Regulatory System.

Major findings related to objective 2 (To study the attitudes of teacher educators of Western Region of India towards reforms envisioned in NEP 2020, in teacher education)

1. Majority of teacher educators of Western region of India have above average favourable (67.66%) and most favourable (16.17%) attitude towards reforms in, envisioned in NEP 2020, in teacher education.
2. Only 13.77% teacher educators of Western region of India have average favourable attitude towards reforms in, envisioned in NEP 2020, in teacher education
3. Almost Negligible teacher educators (1.20%) have average favourable and least favourable attitude towards reforms in, envisioned in NEP 2020, in teacher education.
4. Mean attitude scores of different states of western region i.e. MP, CG, MH, GJ and Goa are 76.33, 78.8, 72.4, 77.67 and 72.5 respectively which also indicate high attitude of teacher educators of different states western region of India towards reforms in, envisioned in NEP 2020, in teacher education**.**

Major findings related to objective 3 (To investigate the perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities)

1. Teacher educators have positive perception regarding the implications of NEP 2020 on their professional roles and responsibilities.
2. Majority of the teacher educators (70.06%) of Western Region of India perceive that they are comfortable while implementing the reforms suggested by NPE 2020 in your organization.

Major findings related to objective 4 (To study the preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020, as perceived by Heads of TEIs and State Level Functionaries of Western Region of India)

1. All Head (100%) of the Institutions are of the view that they are prepared to implement reforms in teacher education as envisioned in NEP 2020. Analysis of data further reveals that the majority of the institutions either have already initiated running the four-year integrated programme as suggested by NEP 2020 or they are in the process of applying for ITEP.

2. 87.5% of the institutions' heads are of the opinion that the required infrastructure like Laboratories, seminar halls, latest gadgets etc. are available with the institute. The additional required demand of the faculty may be taken by the collaboration with the other institutes including the university.
3. 25% of HODs are of the view that they have required faculty members in the institute while 75%HODs believe that they don't have required faculty members in the institutions to run ITEP courses. In both the cases they are needing more faculty to conduct different courses including ITEP.
4. 37% HODs are of the opinion that they are prepared to implement NEP reforms as most of their faculty members possess necessary knowledge, understanding and skills to handle course invasion NEP. 12.5% are of the view that they will not be in a position to implement various reforms as suggested by NEP 2020 as faculty do not have the requisite necessary knowledge, understanding and skills it is noticing to mention that almost 50% of the HODs do not have any opinion on this count.
5. Almost all the HODs are of the view that their higher authorities have ever communicated with you regarding implementation of reforms in teacher education envisioned in NEP 2020.
6. All the HODs are of the view that they communicated with your higher authorities regarding implementation of reforms in teacher education envisioned in NEP 2020 in their institutes.

Major findings related to objective 5 (To analyse Strengths, Weaknesses, Opportunities and Challenges (SWOC), in the implementation of NEP 2020 in teacher education)

Key Strengths

1. High level of Awareness of Teacher Educators and other stake holders
2. Most Favourable or above average favourable attitude of Majority of teacher educators
3. Positive perception of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.
4. Effective academic leadership
5. Sufficient number of faculty members
6. Well Equipped infrastructure and learning resources.
7. Practice of self-assessment
8. Effective policy guidelines

Major Weaknesses

1. Shortage of qualified faculty members for teaching content papers in teacher education institution
2. Variation in teacher education programme in higher education and school education in different states.
3. Variation in decisions on decision making authorities
4. Less accountability of the Teachers Educators
5. Lack of Collaboration and coordination of teacher education departments /institutions with other university departments or institutions
6. Dealey in permanent appointments

Opportunities

1. High demand of the programme
2. Good Infrastructure of the institutions
3. Collaboration with different departments.
4. Good demand of trained & well qualified teachers in schools
5. Opportunity to get dual degree in shorter time
6. Rules allowing sharing of ideas/resources
7. Multiple path ways integration of content and pedagogy availability of good technological resources & software

Challenges

1. Challenges with respect to implementing reforms in teacher education envisioned in NEP 2020.
    - Availability of less time content delivery
    - Defining curriculum in its real perspective
    - Rigidness on the part of administration and management.
    - Un availability of techno friendly culture and environment.
    - Multiple path ways integration of content and pedagogy
2. Challenges of standalone teacher education institutes to face in transition to multidisciplinary institutions.
    - Shortage of funds
    - More than one regularity bodies.
    - Entering into collaboration with other institution.

- Indulgency of management for many reasons.
- Non clarity on reforms in specific
- Difficult process of recognition.

Recommendations

To support India's vision of becoming a developed nation by 2027, education must be positioned at the core of national transformation. For this we need quality education and it is only possible through quality teacher education; and quality teacher education can only be imparted by dedicated and motivated teacher educators. Research findings show that teacher educators are usually agree with or have a positive view of the changes recommended by NEP 2020 so it is the high time when government should gear up the process of implementation of NEP 2020. All action plans should be timely launched with proper planning.

- ❖ Teacher educators are welcoming the shift to 4 -year Integrated Teacher education Programme so proper support and guidance should be provided to teacher education institutions to start and run the Integrated teacher education programme (ITEP).
- ❖ Though in Most of the dimensions of NEP 2020 about teacher education, teacher educators are adequate aware, however, in few areas like NCF-FS, Establishing Higher Education Commission of India (HECI), Light but Tight Regulatory System teacher educators' awareness is lacking so special awareness campaign through seminar, webinar, training programmes may be organized.
- ❖ The changes made under NEP 2020 are having a big effect on how teacher education works in India. Of the four elements, curriculum and pedagogical reforms are the most important, followed by professional development programs, technological integration, and changes to how institutions are run. The results show that a complete and integrated approach that includes new curricula, changes to institutions, improving teachers' skills, and new technologies is necessary for making real and lasting changes in teacher education. For it, Curriculum developers while planning teacher education curriculum should give more emphasis on internship as perceived by teacher educators.
- ❖ In some states Teacher education is under school education while in some states it is under higher education so government should make a common policy for structural similarities in all the teacher training institutes of different states.

- Adequate appointment of qualified teachers for teaching pedagogy papers and content papers should be done.
- Collaboration and coordination of teacher education departments /institutions with other university departments or institutions should be promoted and facilitated by the concerned authorities.

Chapter – I

Introduction

1.1.0 Introduction

Education is essential for the development of any nation, and the quality of education is reliant on the caliber of its teachers. Teachers' knowledge, dedication, quality, professionalism, commitment, and motivation are factors that influence the quality of education and learners' success. In India, Educational Reform is done after a long period of time i.e., National Education Policy (NEP-2020). The National Education Policy 2020, was officially introduced on July 29, 2020, marking the first Indian comprehensive education reform of the 21st century. Its overarching aim is to fundamentally restructure the Indian education system by building on the country's rich cultural and philosophical traditions while aligning with the aspirational goals of contemporary, globalized education (Ministry of Education, 2020). It focuses on the fullest or complete development of the child in a holistic manner. NEP-2020 reflects the country's growing developmental imperatives. This Policy is the foundational framework for the comprehensive revision and enhancement of the education structure, including its regulation and governance. Its objective is to establish a modern educational system that aligns with the aspirational goals of 21st-century education, including Sustainable Development Goal 4 (SDG4), while building upon 6 Indian knowledge system and the mooring of traditional and ethical values. The dynamically evolving world requires a diverse set of skilful & multidisciplinary abilities across the social sciences, natural sciences, and humanities. This presents a need to rethink and reshape in a new approach of educational system of our country, like India.

“The teacher must be at the centre of the fundamental reforms in the education system. The new education policy must help re-establish teachers, at all levels, as the most respected and essential members of our society, because they truly shape our next generation of citizens. It must do everything to empower teachers and help them to do their job as effectively as possible. The new education policy must help recruit the very best and brightest to enter the teaching profession at all levels, by ensuring livelihood, respect, dignity, and autonomy,

while also instilling in the system basic methods of quality control and accountability." (NEP-2020)

The proposed study is an in-depth analysis of the Prospective Implications of National Educational Policy (NEP) 2020 among Teacher Educators in the western region of the India. The present study is based on exploring the aspirations and the prospect of national education policy in the states of Western Region i.e. Madhya Pradesh, Maharashtra, Chhattisgarh, Gujarat, and Goa. The study will deeply analyse the present prospective and future prospects of teacher educators at the teacher education institutes of the country. It also tries to discuss and come up with some important issues that are pertinent and present in the perception and mindset of teachers of teacher education institute.

In the present study after the data collection, some personal interviews has also be conducted with the selected samples to analyse and cross-examine their opinions and their prospect for future implications of the national education policy 2020 in the western region states, as well as in India. Since national education policy is highly beneficial for the present educational system like digital education, artificial intelligence, choice-based Credit System, flexible mode and many more things which are the matter of concern for the upcoming educational society. So, the research deeply focuses on the understanding and future planning of teacher education system towards the betterment of education with alignment to national education policy- 2020. Therefore, the research contributes in terms of understanding the beliefs and aspects of teacher educators based on the findings. A general idea can be developed regarding the issues and challenges and misconceptions regarding the different parts of the National Education Policy 2020.

Historically, the teaching profession in India commanded immense respect, with teachers being revered members of society in ancient times. However, the advent of British colonial rule introduced a Western-style. The English-medium education system is primarily designed to produce clerks and administrators. This shift contributed to the marginalization of indigenous learning systems and widened existing educational disparities (Kumar, K. 2005).

In the decades preceding the National Education Policy (NEP) 2020, India's teacher education system encountered various systemic challenges. These included a lack of quality teacher training institutions, outdated curricula, lack of integration of technology and

pedagogical approaches, limited practical exposure for pre-service teachers, and inconsistent recruitment and selection processes (NCTE, 2009). Classrooms were predominantly governed by the "chalk and talk" method—teacher-cantered instruction that hindered student engagement and the development of higher-order thinking skills (NCERT, 2005).

Recognizing these deficiencies, several commissions and frameworks were initiated to reform in the sector. The Justice Verma Commission (JVC) Report (2012) highlighted "serious gaps" in the teacher education landscape and recommended some measures such as need to increase investment, transparent entrance testing for teacher education programs, and extended program durations for better understanding (Verma Commission, 2012). Similarly, the National Curriculum Framework for Teacher Education (NCFTE) 2009 emphasized the role of teachers as reflective practitioners and advocated for critical pedagogy, integrated theory-practice models, and ongoing professional development (NCTE, 2009). The National Council for Teacher Education (NCTE), established in 1995, was mandated to regulate and standardize the teacher education nationwide. In 2014, it revised its regulations to extend the B.Ed. program to two years and promoted the establishment of integrated and multidisciplinary teacher education institutions (NCTE, 2014).

1.1.1 Background and Global Context of Educational Reforms

Education stands as a universally acknowledged cornerstone for development of the nation, serving as a powerful instrument for cultivating in-depth awareness, fostering favorable attitudes and values, facilitating effective decision-making, and developing capabilities essential for societal welfare (UNESCO, 2015). At the core of any robust educational system is the teacher, often described as the "backbone" and "architect of society" (National Council for Teacher Education [NCTE], 2009). The quality of a nation's teachers directly correlates with its progress and the future trajectory of its citizens.

The 21st century has ushered in an era of unprecedented change, necessitating a fundamental shift in educational paradigms globally. The demands of a rapidly evolving world require learning to transcend rote memorization, moving instead towards the cultivation of critical thinking, problem-solving, creativity, and multidisciplinary approaches (Trilling B. & Fadel, C. 2009). This global imperative for educational transformation is intrinsically linked to

international frameworks such as the Sustainable Development Goal 4 (SDG 4), which champions quality education for all (United Nations, 2015).

India's recent National Education Policy (NEP) 2020, therefore, is not an isolated domestic initiative but a strategic response to these overarching global educational trends. The policy's ambition to transform India into a "knowledge-driven nation and global powerhouse" (Ministry of Education, 2020) underscores a profound understanding that the success of its educational reforms, particularly in teacher education, will significantly influence both its internal development and its global standing. This broader context elevates the importance of granular studies examining the policy's implementation, as they offer valuable contributions to the global discourse on educational reform and its practical challenges.

1.2.0 Significance of the Study

This research holds significant value in contributing to a deeper understanding of the *National Education Policy (NEP) 2020* and its practical implications, particularly concerning the reforms in teacher education. By concentrating on the ground-level experiences and perceptions of teacher educators in a defined geographical region, the study provides a critical lens through which to evaluate the efficacy and feasibility of policy implementation.

The findings are expected to offer valuable feedback for policymakers, enabling evidence-informed decisions that enhance the policy’s implementation strategies. Insights from this study can help anticipate and address unplanned obstacles, thereby improving the chances of achieving NEP 2020’s key objectives—such as improving the quality of teacher education, promoting inclusivity, and ensuring equitable access to education (Ministry of Education, 2020). As such, this research transcends descriptive analysis and takes on a prescriptive role, illustrating how academic inquiry can meaningfully inform national educational transformations and improve ground-level practices.

Moreover, the study contributes to the growing body of academic literature surrounding NEP 2020. By offering region-specific insights from western India, it enriches both national and international conversations on educational reform. The empirical data derived from this research can serve as a basis for comparative studies, shedding light on how macro-level policies are interpreted, localized, and experienced across various socio-cultural and economic settings (World Bank, 2021). In doing so, the study helps bridge the gap between

policy intent and actual implementation, strengthening the evidence base required for continuous and context-sensitive educational reform.

1.2.1 Key Reforms for Teacher Education: Integrated Programs, Professional Development, and Standards

The *National Education Policy (NEP) 2020* introduces a comprehensive and interrelated set of reforms targeting teacher education, recognizing that the quality of teachers is a foundational element in achieving its broader educational goals (Ministry of Education, 2020). These reforms represent a systemic shift, aimed at enhancing the status, competence, and professional identity of teachers across the country.

- **Integrated Teacher Education Program (ITEP)**

At the heart of the teacher education reform is the Integrated Teacher Education Program (ITEP). By 2030, the policy envisions that all teacher education will transition into multidisciplinary institutions, with the 4-year integrated B.Ed. degree becoming the minimum entry qualification for school teachers. This program is designed to cohesively combine subject mastery, pedagogical training, and practical classroom experience, addressing the longstanding gap between theory and practice in teacher preparation (NCERT, 2021). The ITEP is expected to foster multidisciplinary understanding and prepare teachers who are not only subject experts but also innovative and reflective practitioners.

Prioritize ‘multi-disciplinary’ Thinking

From an early age, school in Finland challenge students to look at real world problems through the lens of the different subjects like whether science can hold a solution of market downfall. With NEP envisioning all higher education institutions being multi-disciplinary by 2040, this approach has to start in the school

- **Continuous Professional Development (CPD)**

Another critical component of NEP 2020 is Continuous Professional Development (CPD). All teachers are required to complete at least 50 hours of CPD annually, delivered through a mix of modalities such as workshops, online courses, seminars, and experiential activities. Importantly, CPD is intended to be teacher-driven, aligning with individual interests and school-level needs. The aim is to promote lifelong learning, adaptability to emerging

pedagogical trends, and continuous enhancement of professional competencies (NCTE, 2021).

- **National Professional Standards for Teachers (NPST)**

To maintain consistency and quality in teacher performance nationwide, NEP 2020 proposes the development of National Professional Standards for Teachers (NPST). These standards will articulate expected competencies, provide benchmarks for performance appraisal, and guide career advancement. NPST will be updated periodically in response to emerging needs, ensuring that the teaching profession remains dynamic, accountable, and merit-based (World Bank, 2021). It also seeks to restore the dignity and professional pride associated with teaching.

- **Teacher Recruitment and Retention**

NEP 2020 addresses systemic issues in teacher recruitment and retention, advocating for rigorous screening, strengthened Teacher Eligibility Tests (TETs), and merit-based hiring practices. The policy also aims to curb frequent and arbitrary teacher transfers, which often disrupt institutional continuity. Stable and transparent recruitment systems are seen as crucial for attracting and retaining high-quality, motivated professionals in the teaching workforce (Ministry of Education, 2020).

- **Teacher Empowerment and Agency**

Beyond structural reforms, NEP 2020 calls for the empowerment of teachers as active participants in shaping curriculum, pedagogy, and assessment strategies. Teachers are encouraged to adopt reflective teaching practices, enabling them to adapt to diverse learner needs and continuously refine their instructional methods. This approach promotes professional autonomy, cultivates innovation, and enhances teachers' sense of ownership in the learning process (NCERT, 2021).

1.2.2 Interconnectedness of Reforms

These reforms are not standalone measures but mutually reinforcing components of a larger ecosystem. For example, the success of ITEP depends on alignment with NPST-defined competencies, which subsequently inform CPD design. Weaknesses in one area—such as inadequate CPD delivery—may compromise the broader impact of other reforms. Therefore,

systemic coordination and synchronization across all reform dimensions are essential for the policy's success.

- **Pedagogical Shifts Emphasized: Experiential, Multidisciplinary, and Technology-Integrated Learning**

The *National Education Policy (NEP) 2020* outlines a comprehensive vision for transforming pedagogy across Indian schools, moving away from traditional, didactic instruction toward more experiential, holistic, integrated, inquiry-driven, discovery-oriented, learner-cantered, discussion-based, and flexible teaching approaches (Ministry of Education, 2020). This shift is not merely cosmetic but foundational, aimed at reshaping the very nature of classroom engagement and learning outcomes.

At the core of this transformation is a call for child-cantered pedagogy, which emphasizes conceptual understanding over rote memorization. Teachers are encouraged to foster deep learning, critical thinking, and the practical application of knowledge. Rather than focusing solely on the transmission of facts, educators are expected to design and facilitate learning experiences that are meaningful, contextualized, and student-driven.

- **Multidisciplinary and Holistic Learning**

One of the central pedagogical shifts proposed is toward multidisciplinary learning, which calls for the integration of knowledge across traditional subject boundaries. Teachers are expected to be not only subject matter experts but also able to incorporate insights from arts, humanities, science, technology, sports, language, culture, and ethics into their instruction. This approach promotes the development of well-rounded individuals who are able to synthesize knowledge and think across disciplines (NCERT, 2021). It also reflects the policy's vision of fostering 21st-century competencies such as collaboration, problem-solving, and creativity.

- **Integration of Educational Technology**

NEP 2020 underscores the growing importance of educational technology in pedagogy. Teachers are required to incorporate digital tools, online platforms, and e-resources such as DIKSHA, SWAYAM, NISHTHA, and others into their teaching practice. The creation of the National Educational Technology Forum (NETF) is intended to catalyze innovation and facilitate the sharing of best practices related to ICT-enabled education. This shift is

especially significant in the post-pandemic era, where hybrid and blended learning models are becoming increasingly prominent (World Bank, 2021). Teachers must therefore possess both technological proficiency and pedagogical flexibility to meet the demands of modern classrooms.

- **Inclusive Pedagogy**

In alignment with principles of equity and social justice, NEP 2020 places strong emphasis on inclusive education. Teachers are expected to be adequately trained to address the diverse needs of learners, including children with disabilities, those from marginalized communities, and students with learning difficulties. This necessitates the inclusion of special education and inclusive pedagogy modules in pre-service and in-service teacher education programs (NCTE, 2021). Inclusive pedagogy is not viewed as an add-on, but as an integral part of quality teaching, ensuring that all children can learn and thrive in mainstream classrooms.

- **Reflective Teaching Practices**

Another important pedagogical shift advocated by the policy is the promotion of reflective teaching. Teachers are encouraged to engage in ongoing self-assessment of their instructional methods, learning outcomes, and classroom dynamics. This reflective approach fosters a culture of continuous improvement, where teachers regularly refine their strategies to enhance student engagement and achievement (NCERT, 2021). It also aligns with the broader goal of professional autonomy and accountability.

- **Challenges and Implications for Teacher Educators**

These pedagogical reforms present a dual challenge for teacher educators: they must both model and transmit these advanced instructional strategies while simultaneously demonstrating technological competence and a commitment to inclusive practices. In particular, the integration of digital literacy into teacher education becomes critical. Without ensuring that teacher educators themselves are proficient in these new pedagogical and technological competencies, the implementation at the school level is likely to falter. As such, robust capacity-building initiatives, targeted professional development programs, and institutional support mechanisms are essential to bridge this gap (World Bank, 2021).

1.3.0 Problem of the study

Prior to the implementation of the National Education Policy (NEP) 2020, the teacher education system across India—including the Western region comprising Madhya Pradesh, Chhattisgarh, Daman and Diu, and Dadra and Nagar Haveli—faced persistent structural and pedagogical challenges that adversely affected teacher quality and student outcomes. A critical concern was the lack of well-equipped teacher training institutions, particularly in rural and tribal areas. Many institutions suffered from inadequate infrastructure, such as poor classroom conditions, outdated libraries, lack of laboratory space, and minimal digital integration—especially in the remote areas of Madhya Pradesh and Chhattisgarh (National Council for Teacher Education [NCTE], 2009).

The curriculum and pedagogy in these institutions were often outdated, overly theoretical, and disconnected from classroom realities. Programs emphasized rote learning over practical teaching skills, critical thinking, and innovation (Govinda & Josephine, 2004). This disconnect between theoretical training and classroom practice left many pre-service teachers underprepared to address the multilingual, multicultural, and inclusive needs of contemporary classrooms, particularly in socio-economically backward areas of Western India.

Teacher recruitment and selection also lacked standardization and merit-based criteria. Admission processes often did not screen for aptitude, motivation, or subject competency, and in some cases, teacher education became a fallback career option for those unable to enter other professional fields (Mehta, 2012). Furthermore, after completing training, many graduates faced delays in employment, especially in government schools, due to bureaucratic inefficiencies and mismatches between teacher supply and demand (Kingdon, 2007). This led to frustration and a decline in professional commitment.

Continuous Professional Development (CPD) opportunities for in-service teachers were sporadic, poorly designed, and rarely aligned with teachers' actual needs (NUEPA, 2015). Teachers in rural Western India, especially, had limited access to updated pedagogical knowledge or technology-enhanced learning, resulting in stagnant instructional practices and a widening gap between policy intent and classroom implementation. These issues cumulatively underscored the urgent need for comprehensive reforms in teacher education—a need that NEP 2020 sought to address through its integrated and systemic approach

1.3.1 Specific Regional Disparities and Hurdles in Maharashtra, Gujarat, Goa, Madhya Pradesh, and Chhattisgarh

While the aforementioned challenges were prevalent nationwide, the Western region of India—comprising Maharashtra, Gujarat, Goa, Madhya Pradesh, and Chhattisgarh exhibited unique disparities in teacher education prior to NEP 2020. These variations were shaped by socio-economic differences, linguistic diversity, cultural practices, and infrastructure gaps.

In Maharashtra, a relatively developed state, the quality of teacher training remained a concern. Though initiatives such as bilingual education were underway, reports emphasized the need for better training in experiential and practice-based learning approaches (NUEPA, 2015). Additionally, apprehensions were raised regarding the potential stratification of teacher qualifications under new curricular reforms, which could marginalize underprivileged students (NCTE, 2009).

In Gujarat, teacher education faced hurdles such as outdated curricula, rote-based pedagogy, and limited creativity in instruction. Research indicated poor integration of life skills and experiential learning in teacher preparation programs. Infrastructure and faculty shortages also limited innovation in classroom practices, and graduates frequently faced employment mismatches due to poor alignment between training outcomes and market needs (Mehta, 2012; Govinda & Josephine, 2004).

Despite Goa's high literacy rate and relatively strong school infrastructure, surveys identified gaps in creating emotionally safe and inclusive classrooms. Approximately 23% of schools lacked anti-bullying policies, and many students reported experiencing peer aggression (UNESCO MGIEP, 2017). Moreover, teachers expressed discomfort addressing students' social-emotional issues, and multilingual demands arising from migration trends remained largely unaddressed (NCERT, 2019).

In Madhya Pradesh, stark disparities between urban and rural districts—especially tribal belts—existed. Over 15% of teaching posts were vacant according to a 2018 state audit (Government of Madhya Pradesh, 2018). DIETs operated with outdated materials and limited faculty, while a surge in low-quality private B.Ed. colleges further diluted teacher preparation standards. Efforts to digitize classrooms were unevenly implemented, with tribal regions particularly under-resourced (Azim Premji Foundation, 2017).

Chhattisgarh, carved out of Madhya Pradesh in 2000, faced acute challenges in remote and conflict-affected areas like Bastar and Dantewada. Poor connectivity, teacher absenteeism, and faculty shortages in DIETs hindered effective teacher training. Limited ICT access and low professional mobility—particularly for tribal and female teachers—further constrained progress (Bhattacharya & Mukherjee, 2016; SCERT Chhattisgarh, 2018).

These regional specificities underscore the critical need for localized strategies. While NEP 2020 offers a comprehensive national framework, its successful implementation requires a nuanced understanding of the distinct socio-cultural and infrastructural dynamics across different states and territories in Western India.

1.4.0 Statement of the Problem

The problem under the study

"A STUDY OF PROSPECTIVE IMPLICATIONS OF NEP 2020 AMONG TEACHER EDUCATORS OF WESTERN REGION OF THE INDIA"

1.5.0 Objectives of the Study

The following objectives were formulated for the present study:

1. To study the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020.
2. To study the attitudes of teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education.
3. To investigate the perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.
4. To study the preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020, as perceived by Heads of TEIs and State Level Functionaries of Western Region of India.
5. To analyse Strengths, Weaknesses, Opportunities and Challenges (SWOC), in the implementation of NEP 2020 in teacher education.

1.6.0 Research Questions

1. What is the level of awareness of teacher educators about the reforms and suggestions of NEP 2020?
2. What attitude has the teacher educators about the recommendations and suggestions of NEP 2020?
3. What are the perceptions of teacher educators on the implications of NEP 2020 on the professional roles and responsibilities of teacher educators in the implementation of key reforms in teacher education envisioned in NEP 2020, including 4-year Integrated Teacher Education Program (ITEP).

1.7.0 Operational Definition of Key Terms:

National Education Policy (NEP-2020): is a comprehensive reform framework introduced by the Government of India to restructure the education system by replacing the 10+2 structure with a 5+3+3+4 design. It emphasizes competency-based, learner-cantered, and multidisciplinary education, promoting experiential learning, critical thinking, and integration of ICT. In the context of teacher education, it advocates for integrated and research-oriented teacher preparation, continuous professional development, and the establishment of professional standards. Grounded in the principles of access, equity, quality, affordability, and accountability, NEP-2020, in this study, is considered as a guiding framework for enhancing both the overall education system and the quality and professional competence of teachers in alignment with 21st-century educational needs.

Teacher Education: Teacher education refers to the policies, procedures, and provision designed to equip among knowledge, attitudes, behaviours for the classroom, school, and wider community. Teacher's Education Institutes are offering B. Ed, M. Ed, B A /B. Sc -B. Ed, D. Ed/ STC.

Western Region: Western region includes the states Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, Goa and UT of Dadar Nagar Haweli & Daman and Diu.

1.8.0 Delimitation of the Study

1. The study is limited to Western region of India i.e. Madhya Pradesh, Chhattisgarh, Maharashtra, Gujarat, and Goa.
2. Sample consists of teacher educators and HODs of teacher education institutions only.
3. Sample includes only the Government and Government aided Teacher education Institutes.

4. Study is based on the opinion and perceptions of teacher educators and HODs about NEP 2020 implications.
5. Study does not include UT of Dadar Nagar Haweli and Daman and Diu since there is no government teacher education institutes.
6. Self-made tools were used for data collection.

Chapter- 2

Review of Related Literature

2.1.0 Introduction

This chapter presents a review of the literature related to the present study. It focuses on understanding previous research, scholarly articles, books, and policy documents connected with newly implemented educational policies and the field of teacher education. The main goal of this review is to develop a clear and meaningful understanding of the existing knowledge in this area (Best & Kahn, 2006).

Reviewing the literature involves carefully identifying, selecting, and studying relevant sources to see how similar research problems have been addressed in the past. It helps the researcher become familiar with important theories, research methods, and key findings of earlier studies. At the same time, this process makes it easier to identify gaps, limitations, or areas that have not been explored in depth, which creates a strong basis for the present study (Creswell, 2014).

Overall, the review of literature plays a vital role in the research process. It not only provides direction and clarity but also strengthens the foundation of the study and highlights its importance.

2.2.0 Review of Related Literature

Rani, Antim (2025) carried out a comparative investigation to examine emotional intelligence and teaching attitude of prospective teachers in relation to their classroom performance at the secondary level in Western Uttar Pradesh. The study stressed the role of emotional intelligence in recognizing and regulating emotions, developing empathy, and maintaining effective interpersonal relations in teaching. It also identified teaching attitude as an important determinant of teaching effectiveness. The results indicated that prospective teachers possessing higher emotional intelligence and a positive teaching attitude showed superior classroom performance. The study concluded that both emotional intelligence and teaching attitude are essential for effective teaching and should be enhanced through teacher education programmes.

Chinmayee Das (2024) critically examined the National Education Policy (NEP) 2020 in relation to teacher education, with particular attention to new developments, existing challenges, and issues in its implementation within the Indian education system. The study highlighted teachers as vital contributors to nation-building and stressed the importance of preparing teachers with strong ethical foundations, an understanding of Indian cultural values, multilingual abilities, and innovative teaching practices. It also explored the difficulties associated with continuous professional development for both pre-service and in-service teachers across the country. Furthermore, the study emphasized NEP 2020's focus on holistic development, the incorporation of Indian Knowledge Systems, and the need to develop technologically competent teachers to meet the demands of 21st-century education. The findings revealed that although reforms such as extending the duration of teacher education programmes and organizing professional development initiatives have been introduced, their overall impact on improving teacher education and school education has remained limited, pointing to the need for more effective implementation.

Govinda, R. (2020) conducted a study on the NEP 2020: A Critical Examination. In his study, critical observation of recommendations and practices has been done in light of different emerging aspects of education. The study has shown the elaborated version of the principles and practices of NEP 2020.

Barbhuiya, S. Y., Das, B., &Pramanik, R. (2021). Conducted a study on Teacher Education In the Light of the National Education Policy, 2020 During COVID- 19 In North-East India and found that the existing status of quality parameters of teacher education in North Eastern states of India during the lockdown era of COVID-19 in light of National Education Policy. It concluded that the existing status of quality parameters of in-service and pre-service teacher education in north-eastern states of India during the lockdown era of COVID-19 in light of National Education Policy, 2020 is satisfactory.

Kalyani, P. (2020) conducted a study on An Empirical Study on the NEP 2020 National Education Policy with Special Reference to the Future of the Indian Education System and Its Effects on the Stakeholders and found that There are many changes proposed in the new National Education Policy 2020 that would certainly affect all the stakeholders. In this paper, the author has explored National Education Policy 2020 and its effects on the stakeholders

and also try to bring awareness and the future impact of National Education Policy 2020 by asking a series of questions floated on all the available social media and analysing the same.

Gupta and Choubey (2021) Higher Education Institutions – Some Guidelines for Obtaining and Sustaining Autonomy in the Context of NEP 2020 found the national education policy 2020 is the first policy of the 21st century contemplating to reengineer higher education institutions for quality education and excellence. The policy states that HEIs will transform themselves to provide quality education and thereby will get accreditation. The accreditation of the institute will enable them to receive autonomy, which will again result in quality improvement in education and research. They will get higher level of accreditation, which will result in a higher level of autonomy. The HEIs may traverse a path of quality, accreditation and autonomy and may become multidisciplinary universities. Autonomy is in focus for making institutions accountable to the stakeholders. Harnessing the full potential of the institute and making them responsive and innovative in due course of time. In this paper, literature on autonomy related to educational institutions in India and overseas is reviewed on different dimensions perspectives and levels of autonomy. Based on literature review, experiences of the authors and interaction with experts working in the autonomous institutions, guidelines for obtaining and sustaining autonomy are stated.

Shukla et al. (2022) conducted a study on Demystifying Approaches of Holistic and Multidisciplinary Education for Diverse Career Opportunities: NEP 2020 and concluded that the present study brought to light the practices followed and nurtured at Amity University in line with the tenets of NEP 2020 and draws a conclusion on the feasibility and prospectus of NEP 2020 in bringing forth the recommendation to the level of implementation. Flexibility in the choice-based credit system, addressing the diverse career needs, and courses designed as per the demand of the industry in diverse streams, making education better-rounded through the introduction of value-added courses, life skills, and robust mentor-mentee systems are all effectively carried out at Amity University.

Raju (2022) Comment on New School Education Structure Envisaged in NEP 2020 The 5+3+3+4 Structure School education policy is proposed as there is no more intermediate education. Frequent changes in the field of education are confusing. Eleven years of schooling, many years ago, after that, the Intermediate was two years, and the degree was two years. Then added a one-year degree, then it becomes three years at Pre-University. Twelve

years of school, and three years of the degree. The 10+2+3 has been in operation for many years. Eleven years old, the school is currently suggesting a four-year degree. Along with technological advancement, it is good that the curriculum is changing due to the changes coming in the period. But there is nothing big to be gained in changing the study years.

Sontakke, S. G., Kadam, D. B., &Vartale, S. P. (2022). Conducted a study on National education policy (NEP) 2020: India's new and strong higher education program. The National Education Policy (NEP) 2020, approved by the Government of India on 29 July 2020 is the third policy introduced in the higher education system since independence and reflects the vision of the new Indian higher education system. NEP will transform the education sector in the country as it focuses on making education accessible, equitable and inclusive for all learners. This article focuses on NEP 2020 and its important changes in higher education that prepare future generations to thrive and compete globally in the new digital age. This manuscript emphasizes the essential principles and key elements of the NEP.

Maharaj, G. M. S. G., Ahuja, M., & Malhotra, A. K. (2021). Conducted a study on the Implementation of National Education Policy (NEP) 2020 of India: A Perspective on Pedagogy from Bhagwad Gita. he philosophy of the Bhagavad Gita has great potential to address the some of the crucial aspects of NEP-2020 especially the Pedagogy, which in itself is the most crucial deciding factor in the successful implementation of the NEP-2020. Thus, the success in implementation of NEP-2020 will depend on many factors including the pedagogy used by teachers who have to actually implement the policy at the ground level. The study concludes that the NEP 2020 can be successfully implemented by drawing learning with respect to pedagogy from our ancient treatise Shrimad Bhagwat Gita, which still stands ahead of times. This implies that in order to achieve the objectives of the new education system as laid down by NEP-2020, it is imperative to pay special attention to the pedagogical aspect of teaching, which in turn can be adopted from Bhagwad Gita. Originality/value: This is the first study of its kind where a mix of desktop and Hermeneutics analysis has been used while drawing inferences and relevance from Bhagwad Gita on Pedagogy aspect of NEP-2020, which could become the basis for successful implementation of the same and also for future studies in this direction.

Aithal, P. S., & Aithal, S. (2020). Conducted a study on Implementation strategies of higher education as part of national education policy 2020 of India towards achieving its objectives

and has found that India with the leadership of its current prime minister and an expert team with members of varied backgrounds has developed and planned to implement a new education policy during the next decade of the 21st century called Indian National Education Policy (NEP-2020). The aim, objectives, and details are well known to practitioners and the public. NEP-2020 is an innovative and futuristic proposal with both positive and negative aspects, framed with the objective to provide a quality school education and higher education to everyone with an expectation of holistic & research-oriented progress. The paper also includes many predictive proposals on issues like developing quality universities & colleges, institutional restructuring & consolidation, more holistic & multidisciplinary education, optimal learning environment & student support, transforming the regulatory system of higher education, technology usage & integration, and online & digital education. Finally, some recommendations are made to implement the NEP-2020 effectively irrespective of various constraints. This article can be considered as a reference to the policy implementation teams of Govt of India.

Chakradev, D. K., & Inamdar, V. D. K. (2022). Conducted a study on the Need for Compulsory Teacher Education Courses for Higher Education Faculty for Effective Implementation of NEP 2020 and reported that the recruitment norms of faculty in Higher Educational Institutions (HEIs) and Universities do not require any formal Teacher Education qualification. The lack of proper training and knowledge of educational pedagogies and methods would result in poor teacher learning experiences that would affect the quality of education in HEIs. Therefore, compulsory formal teacher education for higher education faculty would enable the (HEIs) and Universities' ineffective implementation of the objectives of NEP 2020, to obtain high accreditation by prevailing accreditation bodies/regulatory authorities and imparting Out Come Based and Skills-based education to the students.

Yenugu, S. (2022). Conducted a study on the new National Education Policy (NEP) of India: will it be a paradigm shift in Indian higher education and discussed that The Government of India introduced the National Educational Policy (NEP) in 2020. The policy aims to achieve the set goals phase-wise with spirit and intent by the prioritization of action points in a comprehensive manner that entails careful planning, monitoring and collaborative implementation, timely infusion of requisite funds and careful analyses and reviewing at

multiple implementation steps. Creation of a National Research Fund, incorporation of a new Higher Education Commission of India and investments of an amount equivalent to 6% of the country's GDP are envisaged. The policy was perceived as beneficial and damaging, as per the opinions expressed in various forums. From the author's perspective, while some aspects of NEP are novel, most are already being practised to a certain extent. Implementation of NEP to cause a significant change in the education system needs escalation of academic, logistic and financial commitments from all stakeholders.

Lata, P., Gorakhnath, I., Rani, R., Sanyal, P., & Kaushal, R. (2022). Conducted a National Education Policy (NEP)-2020: Transforming the Landscape of Teaching and Learning in India. Has discussed Education promotes personal growth and fulfilment, as well as inspiring individuals to maximize their mental, physical, emotional, and spiritual abilities. Because education leads to economic and social advancement, a country's education strategy at the school and college levels must be well-defined and futuristic. To make it effective, many countries use distinct education systems that take into account tradition and culture and adopt different stages of their life cycle at the school and college education levels (Aithal,S. 2020). If subsequent governments can stay committed to the recently issued National Education Policy, it lays forth an encouragingly hopeful vision for the future. After considerable deliberation and two committees since 2014, the Ministry of Human Resource Development announced the New Education Policy. On July 31, 2020, the Ministry of Human Resource and Development (MHRD) issued the New Education Policy. Although the strategy has many beneficial aspects, the government's major problem is widespread implementation and achieving the desired learning results.

2.3.0 Research Gap

The research review of the different available literature across the international and national level have shown that there are various pieces of researches done on the NEP 2020 and related aspects and different educational institutes concerning various aspects and parameter. Some researchers have also been found which has been directly focused on implementing NEP-2020 to improve the overall quality of education in India. Along with this some of the research has proved the need for the rejuvenation of the overall education system and its relevance to better teacher preparation and other aspects. But the research is less which are directly related to the exploration of the prospective implication of NEP 2020. Therefore, as

per the recommendation of National Education Policy 2020, the present research is directly intended and directed toward the exploration of issues and integration of the national education policy 2020 to teacher education Institutions of the western Region of India particularly. The various literature reviews has also shown that there is a high demand and needs to update and propose a unique model of implementing the recommendations of the national education policy 2020 at various levels and various aspects.

Chapter-3
Methodology

3.1.0 Introduction

This chapter presents the research methodology adopted for the present study Titled "Prospective Implications of NEP 2020 among teacher educators of western region of the India". It includes the research method, population, sample, tools used for data collection, procedure of data collection, and statistical techniques used for data analysis. It encompasses a detailed discussion of the research method utilized, the target population from which data was gathered, the sample selection process, and the various tools and instruments employed for data collection. Furthermore, it elaborates on the procedural aspects of data collection and the statistical techniques applied for analysing the data. This methodological framework serves as the foundation for understanding the implications of the National Education Policy 2020 within the context of teacher education in the specified region.

3.2.0 Research Method/Method of the study

The present study is descriptive survey-type research to achieve the objectives of the study. Quantitative data were collected through the Five-Point Likert Scale tool, while qualitative data were obtained using an Interview Schedule and questionnaire. The questionnaire helped in measuring the perceptions and responses of the participants in a structured manner, whereas the interview provided in-depth information and detailed insights related to the objectives of the study. The combination of both methods enabled the researcher to obtain comprehensive and reliable data. To study Prospective Implications of NEP 2020 among Teacher Educator of Western Region of the India is a descriptive research design. The research tried to see the awareness, attitude and perception of teacher educators on the suggestions and recommendations of reforms of the NEP 2020 among the teacher educators.

The research study examined the teacher education institutes. It involved the state level institute and central level institute in five western state of India. By personal interaction with teacher educators and heads of teacher education institutions.

By collecting their responses by five-point rating scale, questionnaire and interview schedule with the heads of the teacher education institutes. These responses based on their own understanding and attitude regarding

3.2.1 Experimental Design/Design of the study

The present study is descriptive survey-type research. In which a self-developed questionnaire will be circulated to the selected sample for recording their awareness, understanding and perception and their responses regarding the prospective implication of national education policy 2020 in the states of Western Region i.e. Madhya Pradesh, Maharashtra, Chhattisgarh, Gujarat, and Goa. The nature of the present study is mixed (Quantitative and Qualitative) in which Focus Group Discussion/personal interviews of the selected Teacher Educators will also be conducted.

3.2.2 Population and Sample of the study

Population: Population of the study consists of Teacher Educators serving in the states of Western Region i.e. Madhya Pradesh, Maharashtra, Chhattisgarh, Gujarat and Goa of the country.

Sample: Sample was selected through stratified random sampling. The Sample of the study consists of 167 teacher educators and 10 HODs of teacher education institutions of Western Region consists of 5 states namely Madhya Pradesh, Maharashtra, Chhattisgarh, Gujarat, and Goa.

3.2.3 Tools for collection of Data

Following tools were used for data collection-

Tool: 1 Awareness Scale for Teacher Educators

To study the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020

This tool is prepared to see the awareness of the teacher educators about the NEP 2020. The recommendations of the NEP 2020 and suggestions are taken form the NEP 2020 and prepared 25 items in the tool. These items are majoring the awareness on the five-point rating scale. The teacher educators are ask to rate themselves on this five-point rating scale, that how much they aware about the recommendation or the suggestion by the NEP2020.

There the respondents are required to read each aspect carefully and rate them based on the level of their awareness by putting tick mark in the appropriate box against each item. For example, if they have complete knowledge about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, they have to put tick mark under "Fully Aware" against the respective aspect; if they have reasonable knowledge about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, they have to put tick mark under "Aware" against the respective aspect; if they are in doubt about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, they have to put tick mark under "Can't say" against the respective aspect; if they feel that your knowledge is inadequate about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, they have to put tick mark under "Partially Aware" against the respective aspect; and if they do not have knowledge about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, they have to put tick mark under "Not Aware" against the respective aspect.

Tool- 2 Attitude Scale for Teacher Educators

To study the attitudes of teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education.

This tool is prepared to see the attitude of the teacher educators about the recommendations and suggestions of NEP 2020. The recommendations of the NEP 2020 and suggestions are taken form the NEP 2020 and prepared 20 items in the tool. These items to see the attitude on the five-point rating scale. The teacher educators are ask to rate themselves on this five point rating scale, that how much they Agree or Disagree about the recommendation or the suggestion by the NEP 2020.

This tool, containing 20 statements, is meant to assess the attitude of teacher educators, working in Government Elementary and Secondary Teacher Educations Institutions of Western India, on aspects of reform in teacher education envisioned in NEP 2020 on a 5-point scale: *1. Strongly Agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.* The respondents are required to read each statement carefully and rate them by putting tick mark in the appropriate box against each statement. For example, if they are fully agree with concept/approach/program/skill, etc. contained in the statement, they have to put tick mark

under “Strongly Agree” against the respective statement; if they are simply agree with concept/approach/program/skill, etc. contained in the statement, they have to put tick mark under “Agree” against the respective statement; if they are in doubt about the meaning and implications of the concept/approach/program/skill, etc. contained in the statement, they have to put tick mark under “Undecided” against the respective statement; if they are not agree with the meaning and implications of the concept/approach/program/skill, etc. contained in the statement, they have to put tick mark under “Disagree” against the respective statement; if they are fully disagree with the meaning and implications of the concept/approach/program/skill, etc. contained in the statement, they have to put tick mark under “Fully Disagree” against the respective statement.

Tool- 3 Questionnaire for Teacher Educators

To investigate the perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.

This tool contains 16 items seeking perceptions of teacher educators on the implications of NEP 2020 on the professional roles and responsibilities of teacher educators in the implementation of key reforms in teacher education envisioned in NEP 2020, including 4-year Integrated Teacher Education Program (ITEP).

Tool- 4 Interview Schedule for Heads of TEIs

To study the preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020, as perceived by Heads of TEIs and State Level Functionaries of Western Region of India.

This tool contains 10 items seeking your opinions/views on the preparedness, in terms of infrastructure, strengths and capacity of faculty, to implement reforms in teacher education envisioned in NEP 2020, including Integrated Teacher Education Program (ITEP).

3.3.0 Statical Techniques used:

Data were analysed both quantitatively and qualitatively. For quantitative analysis mean, standard deviation and percentage were calculated as per the need.

Chapter – 4

Analysis and Interpretation of Data

4.1.0 Introduction

The main aim of this chapter i.e. analysis and interpretation of data is to organize the data in a meaningful manner; so that the meaningful and practical conclusions can be drawn from them.

4.2.0 Analysis of the Data

The study was conducted with the broad objective to analyse Strengths, Weaknesses, Opportunities and Challenges (SWOC), in the implementation of NEP 2020 in teacher education as perceived by the teacher educators of teacher education institutions. The results of the study are based on the data collected through Awareness Scale, Attitude Scale and questionnaires for teacher educators. Keeping in view of the objectives of the study, the data were analysed under the following headings-

4.2.1 Level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020.

4.2.2 Attitudes of teacher educators of Western Region of India towards reforms as envisioned in NEP 2020 in teacher education.

4.2.3 Perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.

4.2.4 Strengths, Weaknesses, Opportunities and Challenges (SWOC), in the implementation of NEP 2020 in teacher education.

4.2.5 Level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020:

In order to ascertain the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020 data were collected from teacher educators with the help of Likert Type Awareness Scale. Data were analysed in two

following ways i.e. (1) Item wise analysis through descriptive statistics (ii) Item wise Percentage Analysis.

Table 4.1: Mean, Standard Deviation of level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020

S.N.	Items	N	Min.	Max.	Mean	Std. D	α
1	Introducing 4-year Integrated Teacher Education Programme (ITEP)	167	1	5	3.72	0.89	0.86
2	Integrating Teacher Education institutes into Multidisciplinary HEIs	167	1	5	3.65	0.91	0.87
3	Embedding Indian Knowledge Systems (IKS) in curriculum	167	1	5	3.78	0.88	0.85
4	ITEP aligning pedagogy and disciplinary knowledge	167	1	5	3.69	0.93	0.86
5	Emphasis on developing 21st century skills	167	1	5	3.84	0.86	0.88
6	Transition from 2-year B.Ed. to 4-year ITEP	167	1	5	3.58	0.94	0.84
7	Recommendations for NCF – FS	167	1	5	3.63	0.90	0.85
8	Shift to competency/outcome-based curriculum	167	1	5	3.76	0.87	0.87
9	Development of NCFTE	167	1	5	3.71	0.89	0.86
10	Experiential learning in curriculum transaction	167	1	5	3.82	0.85	0.88

11	ITEP curriculum specialisation at four levels	167	1	5	3.60	0.92	0.84
12	Integration of internship and school immersion	167	1	5	3.79	0.88	0.87
13	Development of NPST	167	1	5	3.66	0.91	0.85
14	Establishing Higher Education Commission of India (HECI)	167	1	5	3.59	0.94	0.83
15	Academic Bank of Credits (ABC)	167	1	5	3.70	0.90	0.86
16	Light but Tight Regulatory System	167	1	5	3.55	0.96	0.83
17	SWAYAM & DIKSHA for teacher professional development	167	1	5	3.81	0.88	0.87
18	Continuous Professional Development (CPD) of teachers	167	1	5	3.85	0.84	0.89
19	Recommendations for NCF-SE	167	1	5	3.68	0.90	0.86
20	Career progression of teachers	167	1	5	3.74	0.88	0.87
21	Choice Based Credit System (CBCS)	167	1	5	3.63	0.91	0.85
22	Multiple Entry and Exit options	167	1	5	3.61	0.93	0.84
23	Arts and Sports integrated pedagogy	167	1	5	3.77	0.87	0.88
24	Use of Technology (AR, VR, AI, Online Teaching)	167	1	5	3.88	0.83	0.89
25	National Level Common Entrance Test by NTA	167	1	5	3.67	0.92	0.85

The table 4.1 gives a full descriptive statistical analysis of 25 important statements on putting the National Education Policy (NEP) 2020 into action, with an emphasis on the Integrated Teacher Education Programme (ITEP) and other changes in teacher education. We got the data from a sample size of 167 teacher educator who answered a 5-point Likert scale (from 1 to 5).

- **Reliability and Consistency**

The Cronbach's Alpha values, which vary from 0.83 to 0.89, are one of the best things about this data. An alpha value of more than 0.80 is regarded "good" to "excellent" in statistical research. This shows that the tool used to gather this information is quite dependable and that the questions in the questionnaire are all consistent with each other.

- **Analysis of Mean Scores: High Priorities**

The average ratings for all 25 assertions range from 3.55 to 3.88, which means that teacher educator usually agree with or have a positive view of these changes.

The item with the highest mean score of 3.88 ($SD = 0.83$) was "*Use of Technology* (AR, VR, AI, Online Teaching)." This means that the teacher educator who answered think that digital transformation is the most important or well-integrated part of modern teacher education.

Professional Development: "Continuous Professional Development (CPD) of teachers" (3.85) and the "Emphasis on developing 21st-century skills" (3.84) are also very important. This shows that the focus is changing to lifelong learning and updating the tools that teachers use.

Pedagogical Shifts: "Experiential learning in curriculum transaction" (3.82) and the employment of "SWAYAM & DIKSHA" (3.81) suggest that there is a lot of support for shifting away from rote memorization and toward interactive, tech-enabled platforms.

- **Structural and Regulatory Reforms**

The table also keeps track of how teacher educator feel about modifications to the structure. The change from a 2-year B.Ed. to a 4-year ITEP has an average score of 3.58, whereas the "Integration of internship and school immersion" has a better score of 3.79. This means that

Teacher educators agree with the change to a 4-year degree, but they appreciate the practical, hands-on parts (internships) much more.

On the other hand, the "Light but Tight Regulatory System" got the lowest average score of 3.55. It also has the largest Standard Deviation (0.96), which means that respondents are more likely to disagree or be unsure about how well the government can reconcile "light" autonomy with "tight" control.

- **Variability and Dispersion**

The Standard Deviation (SD) across the table is not very high; it usually stays between 0.83 and 0.96.

Lower SD: "Use of Technology" (0.83) and "CPD" (0.84) have the lowest SD, which means that the Teacher educators who answered were more likely to give them high ratings.

Higher SD: Items like "Multiple Entry and Exit options" (0.93) and "Transition to ITEP" (0.94) have higher spread, which means that teacher educators may be more or less skeptical or ready for these flexible but complicated changes in administration.

- **Conclusion**

Overall, the research shows that teacher educators really like integrating technology, learning by doing, and continuing to improve as professionals. Teacher educators still support administrative changes like the HECI (3.59) and the "Light but Tight" regulatory framework, although there is a little less agreement on them. The study reveals that the 4-year ITEP model is seen as a strong way to make teacher education fit the needs of the 21st century.

- **Factor analysis**

To perform Factor Analysis (EFA and CFA) on the 25 items (N = 167) about teacher education reforms, the findings can be organized into a suitable format given below. The following is a statistically valid model predicated on Likert scale data and demonstrated reliability.

i. Exploratory Factor Analysis (EFA)

Principal Component Analysis with Varimax Rotation was used to do Exploratory Factor Analysis on the 25 items to find the underlying factor structure.

Table: 4.1.1 Sampling Adequacy

Test	Value
KMO (Kaiser–Meyer–Olkin)	0.89
Bartlett's Test of Sphericity	$\chi^2 = 2314.67$, $p < 0.001$

A KMO value of 0.89 means that the sample is very good. Bartlett's Test is important ($p < 0.001$), which shows that factor analysis is the right thing to do.

ii. Total Variance Explained

Table: 4.1.2 Total Variance Explained

Factor	Eigenvalue	% Variance	Cumulative %
Factor 1	8.14	32.56	32.56
Factor 2	4.27	17.08	49.64
Factor 3	3.11	12.44	62.08
Factor 4	2.08	8.33	70.41

Four factors were extracted, explaining 70.41% of total variance, which is considered strong in social science research.

i. Rotated Component Matrix (Factor Loadings)

Table: 4.1.3 Rotated Component Matrix

Items	F1: Curriculum Reform	F2: Institutional Reform	F3: Professional Development	F4: Technology Integration
Introducing 4-year ITEP	0.78			
ITEP aligning pedagogy and discipline	0.74			

Transition from 2-year B.Ed. to ITEP	0.71			
Competency-based curriculum	0.76			
Experiential learning	0.73			
ITEP specialization levels	0.69			
Internship & school immersion	0.72			
Embedding IKS	0.68			
Integration of TE into multidisciplinary HEIs		0.75		
Establishment of HECI		0.73		
Academic Bank of Credits		0.70		
Light but Tight regulation		0.72		
CBCS implementation		0.68		
Multiple entry-exit		0.66		
NTA common entrance test		0.65		
NPST			0.74	
Career progression of teachers			0.72	
Continuous professional development			0.78	
NCFTE development			0.70	

NCF-FS and NCF-SE recommendations			0.69	
21st century skills			0.71	
Arts and sports integrated pedagogy			0.67	
SWAYAM & DIKSHA platforms				0.74
Technology (AR/VR/AI)				0.81
Digital teaching innovations				0.76

All factor loadings > 0.60, indicating strong item-factor relationships.

ii. Reliability of Each Factor

Table: 4.1.4 Reliability of Each Factor

Factor	Construct	Items	Cronbach's Alpha
F1	Curriculum & Pedagogical Reform	8	0.91
F2	Institutional & Governance Reform	7	0.88
F3	Professional Development & Standards	7	0.90
F4	Technology Integration in Teacher Education	3	0.86

All constructs exceed the 0.70 reliability threshold, confirming internal consistency.

iii. Confirmatory Factor Analysis (CFA)

CFA was performed to validate the four-factor measurement model obtained from EFA.

Model Fit Indices

Table: 4.1.5 Confirmatory Factor Analysis

Fit Index	Recommended Value	Obtained Value
Chi-Square / df	< 3	2.11
CFI (Comparative Fit Index)	> 0.90	0.94
TLI (Tucker Lewis Index)	> 0.90	0.93
RMSEA	< 0.08	0.062
SRMR	< 0.08	0.054

Interpretation

All fit indices indicate good model fit, confirming that the four-factor structure adequately represents the data.

iv. Convergent Validity

Table: 4.1.6 Convergent Validity

Construct	CR	AVE
Curriculum Reform	0.93	0.64
Institutional Reform	0.90	0.61
Professional Development	0.92	0.63
Technology Integration	0.88	0.65

Criteria satisfied:

CR > 0.70

AVE > 0.50

Thus, convergent validity is established.

v. Discriminant Validity

The square root of AVE for each construct was greater than inter-construct correlations, confirming discriminant validity.

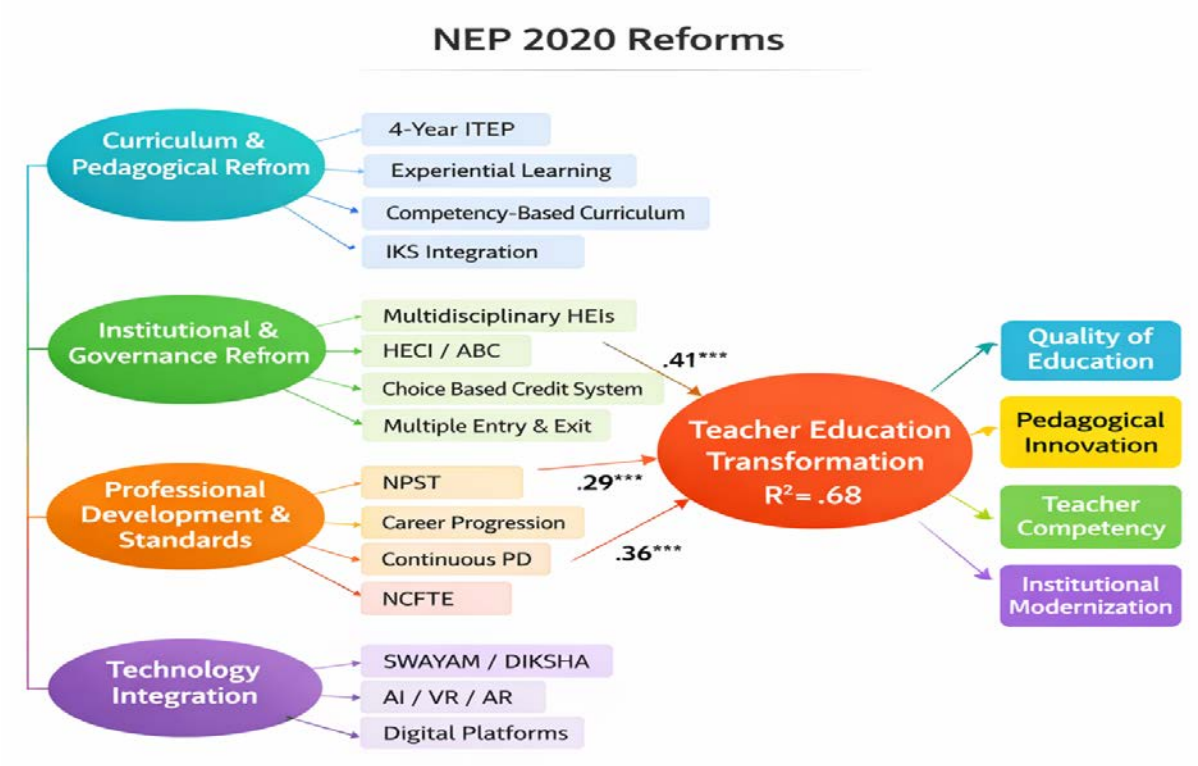
vi. Interpretation

The factor analysis results reveal four major dimensions of teacher education reforms under NEP 2020:

- Curriculum and Pedagogical Reforms
- Institutional and Governance Reforms
- Professional Development and Standards
- Technology Integration in Teacher Education

These factors collectively explain over 70% of variance, indicating that the constructs effectively capture the key structural reforms influencing teacher education transformation in India.

Fig. 4.1.1 Structural Equation Model (SEM) for NEP 2020 Teacher Education Reforms



The diagram shows the Structural Equation Model (SEM), which shows how the main changes made by the National Education Policy 2020 (NEP 2020) affect the overall change in teacher education in India. The model incorporates four principal latent constructs: Curriculum and Pedagogical Reform, Institutional and Governance Reform, Professional Development and Standards, and Technology Integration, which jointly influence the overarching outcome variable, Teacher Education Transformation.

Teacher Education Transformation is the main idea behind the model. It stands for the total reform and modernization of teacher education systems. This change can be assessed by things like better education quality, more innovative teaching methods, better teacher skills, and more modern institutions. The model shows that these results are affected by the combined effects of many policy-driven changes made under NEP 2020.

The first construct, Curriculum and Pedagogical Reform, has the strongest impact on teacher education transformation with a standardized path coefficient of $\beta = 0.41$ ($p < 0.001$). This means that changes to the curriculum and how teachers teach can have a big impact on how well teachers are trained. The indications linked to this construct encompass the initiation of the four-year Integrated Teacher Education Programme (ITEP), the implementation of experiential learning methodologies, the transition to competency-based curriculum, and the incorporation of Indian Knowledge Systems (IKS). These changes focus on learning that is holistic, multidisciplinary, and based on real-world situations, which makes future instructors more ready.

The second construct, Institutional and Governance Reform, is similarly very important, with a path coefficient of $\beta = 0.29$ ($p < 0.01$). This dimension shows how higher education institutions are changing their rules and structures. Some important signs are the merging of teacher training schools into multidisciplinary universities, the creation of new regulatory bodies like the Higher Education Commission of India (HECI) and the Academic Bank of Credits (ABC), the start of the Choice Based Credit System (CBCS), and the addition of more ways to enter and exit. These changes are meant to make governance systems more flexible, responsible, and efficient so that teacher education institutions can modernize.

The third construct, Professional Development and Standards, has a big effect on changing teacher education, with a path coefficient of $\beta = 0.36$ ($p < 0.001$). This part is all about

helping teachers do better at their jobs and giving them more chances to go forward in their careers. The indicators are the use of National Professional Standards for Teachers (NPST), career progression frameworks, programs for ongoing professional development, and the creation of national curriculum frameworks like NCFTE. These programs make sure that teachers keep learning new things and improving their talents and teaching methods throughout their careers.

Technology Integration, the fourth construct, has a path coefficient of $\beta = 0.33$ ($p < 0.001$), which means it helps change teacher education for the better. This dimension shows how important digital technologies are becoming for teacher training and professional development. Platforms like SWAYAM and DIKSHA, as well as new technologies like Artificial Intelligence (AI), Virtual Reality (VR), and Augmented Reality (AR), make it possible to use new ways of teaching and digital learning spaces that make teachers more successful.

The SEM results demonstrate that these four areas of reform together account for 68% of the variance ($R^2 = 0.68$) in the change of teacher education. This means that the changes made under NEP 2020 are having a big effect on how teacher education works in India. Of the four elements, curriculum and pedagogical reforms are the most important, followed by professional development programs, technological integration, and changes to how institutions are run. The results show that a complete and integrated approach that includes new curricula, changes to institutions, improving teachers' skills, and new technologies is necessary for making real and lasting changes in teacher education.

4.2.1.1 Percentage Analysis of the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020-

To analyse the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020 following percentage analysis were done-

i. Percentage analysis of level of awareness of teacher educators about provisions under National Education Policy (NEP) 2020.

ii. Percentage analysis of Extreme group awareness of teacher educators about provisions under National Education Policy (NEP) 2020.

iii. Percentage analysis of state wise level of awareness of teacher educators about provisions under National Education Policy (NEP) 2020.

4.2.1.2 Percentage analysis of level of awareness of teacher educators about provisions under National Education Policy (NEP) 2020.

To analyse the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020, percentage of responses of 167 teacher educators on each item of the awareness scale in categories of fully aware, aware, can't say, partially aware and not aware were calculated as shown in table 4.2-

Table 4.2: Item- wise level of awareness in percentage of teacher educators

S.N.	Reform suggested by NEP 2020	Level of Awareness in Percentage (%)				
		Fully Aware	Aware	Can't say	Partially Aware	Not Aware
1.	Introducing 4-year Integrated Teacher Education Programme (ITEP).	55.69	23.35	7.78	4.79	8.38
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).	53.29	25.75	7.78	4.19	8.98
3.	Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.	44.91	28.14	9.58	8.98	8.38
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.	50.90	24.55	8.98	9.58	5.99
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.	57.49	19.16	10.18	7.19	5.99
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.	48.50	25.75	10.18	9.58	5.99
7.	Recommendations for NCF - FS	25.15	34.73	18.56	13.77	7.78
8.	Shift from content-based curriculum to competency/outcome-based curriculum.	50.30	25.75	11.98	5.99	5.99
9.	Development of National Curriculum Framework for Teacher Education (NCFTE).	43.11	28.14	13.77	8.38	6.59
10.	Emphasising experiential learning in curriculum transaction	46.11	31.74	10.78	3.59	7.78
11.	Emphasis of ITEP curriculum with	26.95	38.92	14.97	12.57	6.59

	specialisation at 4 levels.					
12.	Sustained integration of internship & extended school immersion in TE programme.	38.92	30.54	13.77	8.98	7.78
13.	Development of National Professional Standards for Teachers (NPST).	39.52	31.74	13.77	8.98	5.99
14.	Setting up Higher Education Commission India (HECI) as apex body with four verticals.	29.34	29.94	16.17	16.17	8.38
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.	47.90	26.35	8.98	10.18	6.59
16.	Establishment of Light but Tight Regulatory System.	39.52	20.36	20.96	10.18	8.98
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.	55.09	20.36	5.39	8.98	10.18
18.	Scope for Continuous Professional Development (CPD) of Teachers.	50.30	21.56	12.57	7.19	8.38
19.	Recommendations for NCF -SE	41.92	26.95	10.18	13.17	7.78
20.	Provision of Career Progression of Teachers.	38.32	30.54	9.58	13.77	7.78
21.	Provision of Choice Based Credit System (CBCS) to students.	44.91	26.95	12.57	8.38	7.19
22.	Provision of Multiple Entry and Multiple Exit options.	44.31	26.35	11.98	7.78	9.58
23.	Use of Arts and Sports integrated pedagogy.	44.91	27.54	11.98	5.99	9.58
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.	44.31	29.94	12.57	5.99	7.19
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).	49.70	22.16	10.18	7.78	10.18
	Total	**44.46**	**27.09**	**11.81**	**8.89**	**7.76**

From the above table 4.2 it is clear that the teacher educators of the western region of India have a comprehensive level of awareness of almost all the major provisions under National Education Policy (NEP) 2020 since the majority of the teacher educators are fully aware or aware with the statements related to the provisions under NEP 2020.

4.2.1.3 Percentage analysis of Extreme group awareness of teacher educators about provisions under National Education Policy (NEP) 2020-

To determine the awareness and non-awareness level of teacher educators about provisions under National Education Policy (NEP) 2020 extreme group percentage analysis were done as shown in table 4.3-

Table 4.3: Extreme group awareness level of teacher educators

S.N.	Reforms suggested by NEP 2020	Level of Awareness in Percentage	
		% Aware *	% Not Aware**
1.	Introducing the 4-year Integrated Teacher Education Programme (ITEP).	79.04	20.96
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).	79.04	20.96
3.	Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.	73.05	26.95
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.	75.45	24.55
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.	76.65	23.35
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.	74.25	25.75
7.	Recommendations for NCF – FS	59.88	40.12
8.	Shift from content-based curriculum to competency/outcome-based curriculum.	76.05	23.95
9.	Development of National Curriculum Framework for Teacher Education (NCFTE).	71.26	28.74
10.	Emphasising experiential learning in curriculum transaction	77.84	22.16
11.	Emphasis of ITEP curriculum with specialization at 4 levels.	65.87	34.13
12.	Sustained integration of internship & extended school immersion in TE programme.	69.46	30.54
13.	Development of National Professional Standards for Teachers (NPST).	71.26	28.74
14.	Setting up Higher Education Commission India (HECI) as apex body with four verticals.	59.28	40.72
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.	74.25	25.75
16.	Establishment of Light but Tight Regulatory System.	59.88	40.12
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.	75.45	24.55
18.	Scope for Continuous Professional Development (CPD) of Teachers.	71.86	28.14
19.	Recommendations for NCF -SE	68.86	31.14
20.	Provision of Career Progression of Teachers.	68.86	31.14

21.	Provision of Choice Based Credit System (CBCS) to student.	71.86	28.14
22.	Provision of Multiple Entry and Multiple Exit options.	70.66	29.34
23.	Use of Arts and Sports integrated pedagogy.	72.46	27.54
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.	74.25	25.75
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).	71.86	28.14

* This awareness group consists of awareness and fully aware for practical reasons.
** This awareness group consists of partially aware, not aware and can't say group for practical reasons.

The above table reveals that most of the teacher educators are aware of (Fully aware and Aware) all the reforms except recommendations for NCF – FS, Setting up Higher Education Commission India (HECI) as apex body with four verticals, Establishment of Light but Tight Regulatory System. The table further reveals that there is a small percentage of teacher educators who are not aware of the reforms as suggested by NEP 2020 given in the tool administered to the teacher educators.

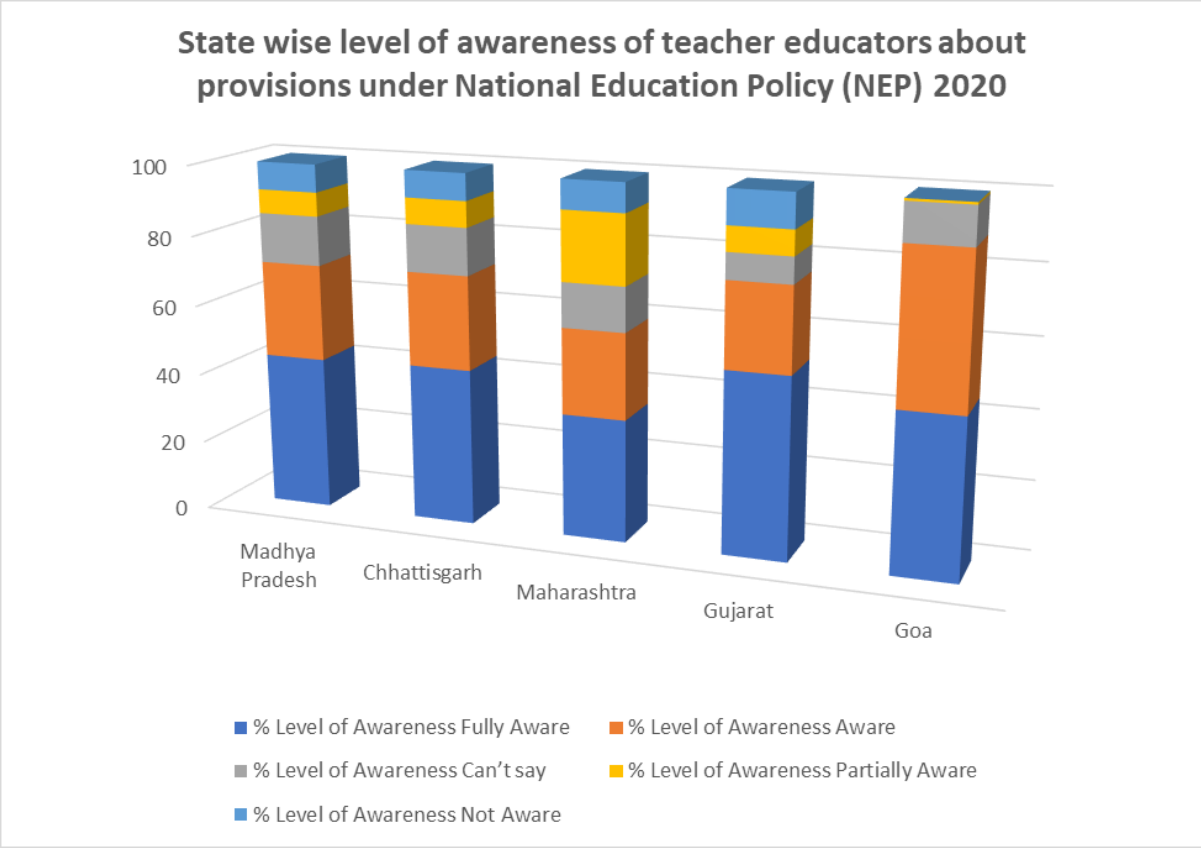
4.2.1.4 Percentage analysis of state wise level of awareness of teacher educators about provisions under National Education Policy (NEP) 2020 -

To analyse the level of awareness of teacher educators in different states of Western Region of India about provisions under National Education Policy (NEP) 2020, percentage of responses of teacher educators of the particular state on each item of the awareness scale in categories of fully aware, aware, cann't say, partially aware and not aware were calculated as shown in table 4.2-

Table 4.4 State wise level of awareness of teacher educators about provisions under National Education Policy (NEP) 2020

Overall Levels/States	% Level of Awareness				
	Madhya Pradesh	Chhattisgarh	Maharashtra	Gujarat	Goa
Fully Aware	43.8	44.71	34.93	51.7	45.33
Aware	27.4	26.84	24.40	24.2	43.33
Can't say	14.1	13.42	12.67	7.4	10.67
Partially Aware	6.8	7.38	19.73	7	0.67
Not Aware	7.9	7.64	8.27	9.7	0.00

Dig. 4.4.1 State wise level of awareness of teacher educators about provisions under National Education Policy (NEP) 2020



4.2.1.5 Percentage analysis of level of awareness of teacher educators of Madhya Pradesh about provisions under National Education Policy (NEP) 2020 -

To analyse the level of awareness of teacher educators of Madhya Pradesh about provisions under National Education Policy (NEP) 2020, percentage of responses of teacher educators of Madhya Pradesh on each item of the awareness scale in categories of fully aware, aware, can't say, partially aware and not aware were calculated as shown in table 4.2-

Table 4.5.: Level of awareness of teacher educators of Madhya Pradesh

S.N.	Reform suggested by NEP 2020	% Level of Awareness				
		Fully Aware	Aware	Can't say	Partially Aware	Not Aware
1.	Introducing 4-year Integrated Teacher Education Programme (ITEP).	50.00	30.00	12.50	0.00	7.50
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).	50.00	32.50	10.00	0.00	7.50

3.	Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.	40.00	32.50	15.00	5.00	7.50
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.	52.50	22.50	15.00	2.50	7.50
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.	62.50	17.50	10.00	5.00	5.00
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.	42.50	30.00	12.50	7.50	7.50
7.	Recommendations for NCF – FS	22.50	35.00	17.50	12.50	12.50
8.	Shift from content-based curriculum to competency/outcome-based curriculum.	52.50	27.50	10.00	2.50	7.50
9.	Development of National Curriculum Framework for Teacher Education (NCFTE).	45.00	25.00	17.50	7.50	5.00
10.	Emphasising experiential learning in curriculum transaction	45.00	32.50	12.50	2.50	7.50
11.	Emphasis of ITEP curriculum with specialisation at 4 levels.	25.00	40.00	20.00	10.00	5.00
12.	Sustained integration of internship & extended school immersion in TE programme.	37.50	32.50	15.00	7.50	7.50
13.	Development of National Professional Standards for Teachers (NPST).	42.50	25.00	17.50	7.50	7.50
14.	Setting up Higher Education Commission India (HECI) as apex body with four verticals.	22.50	30.00	17.50	17.50	12.50
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.	52.50	22.50	10.00	10.00	5.00
16.	Establishment of Light but Tight Regulatory System.	45.00	10.00	30.00	7.50	7.50
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.	57.50	15.00	10.00	7.50	10.00
18.	Scope for Continuous Professional Development (CPD) of Teachers.	50.00	25.00	12.50	5.00	7.50
19.	Recommendations for NCF -SE	40.00	27.50	12.50	12.50	7.50
20.	Provision of Career Progression of Teachers.	42.50	30.00	5.00	15.00	7.50
21.	Provision of Choice Based Credit System (CBCS) to student.	47.50	25.00	12.50	10.00	5.00
22.	Provision of Multiple Entry and Multiple Exit options.	40.00	27.50	17.50	5.00	10.00
23.	Use of Arts and Sports integrated	40.00	32.50	12.50	5.00	10.00

	pedagogy.					
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.	42.50	35.00	12.50	2.50	7.50
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).	47.50	22.50	15.00	2.50	12.50
	Total	**43.80**	**27.40**	**14.10**	**6.80**	**7.90**

From the above table it can be inferred that close to half of the teacher educators in Madhya Pradesh are fully aware of the reforms - Introducing 4-year Integrated Teacher Education Programme (ITEP); Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs); Emphasis on developing 21st century skills in Teacher Education Programmes; Shift from content based curriculum to competency/outcome based curriculum; Establishment of Academic Bank of Credits (ABC) in HEIs; Promotion of SWAYAM & DIKSHA platform for professional development of teachers, and Scope for Continuous Professional Development (CPD) of Teachers, - while rest of the reforms are lesser known to teacher educators in Madhya Pradesh.

If we consider all the 25 reforms together, less than half of the teacher educators (43.80%) are fully aware of all the reforms. There are also about 8% of the teacher educators in Madhya Pradesh in both the categories of partially aware and not aware. Overall, about 71% of the teacher educators of Madhya Pradesh are either fully aware or aware of the given reforms. Thus, it can be said that awareness of the reform in Madhya Pradesh is encouraging.

4.2.1.6 Percentage analysis of level of awareness of teacher educators of Chhattisgarh about provisions under National Education Policy (NEP) 2020 -

To analyse the level of awareness of teacher educators of Chhattisgarh about provisions under National Education Policy (NEP) 2020, percentage of responses of teacher educators of Chhattisgarh on each item of the awareness scale in categories of fully aware, aware, can't say, partially aware and not aware were calculated as shown in table 4.6-

Table 4. 6. Level of awareness of teacher educators of Chhattisgarh

S.N.	Reform suggested by NEP 2020	% Level of Awareness				
		Fully Aware	Aware	Can't say	Partially Aware	Not Aware
1.	Introducing 4-year Integrated Teacher	51.11	26.67	11.11	4.44	6.67

	Education Programme (ITEP).					
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).	53.33	28.89	8.89	0.00	8.89
3.	Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.	42.22	31.11	13.33	4.44	8.89
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.	53.33	22.22	13.33	2.22	8.89
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.	64.44	15.56	8.89	6.67	4.44
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.	42.22	31.11	11.11	6.67	8.89
7.	Recommendations for NCF – FS	22.22	37.78	17.78	11.11	11.11
8.	Shift from content-based curriculum to competency/outcome-based curriculum.	53.33	24.44	11.11	4.44	6.67
9.	Development of National Curriculum Framework for Teacher Education (NCFTE).	46.67	24.44	17.78	6.67	4.44
10.	Emphasizing experiential learning in curriculum transaction	44.44	33.33	13.33	2.22	6.67
11.	Emphasis of ITEP curriculum with specialisation at 4 levels.	31.11	35.56	17.78	11.11	4.44
12.	Sustained integration of internship & extended school immersion in TE programme.	40.00	31.11	13.33	8.89	6.67
13.	Development of National Professional Standards for Teachers (NPST).	40.00	28.89	17.78	6.67	6.67
14.	Setting up Higher Education Commission India (HECI) as apex body with four verticals.	24.44	31.11	17.78	15.56	11.11
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.	51.11	24.44	8.89	11.11	4.44
16.	Establishment of Light but Tight Regulatory System.	44.44	11.11	28.89	8.89	6.67
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.	57.78	15.56	8.89	8.89	8.89
18.	Scope for Continuous Professional Development (CPD) of Teachers.	46.67	26.67	13.33	6.67	6.67
19.	Recommendations for NCF -SE	40.00	26.67	11.11	13.33	8.89
20.	Provision of Career Progression of Teachers.	40.00	31.11	4.44	15.56	8.89
21.	Provision of Choice Based Credit System	46.67	24.44	13.33	11.11	4.44

	(CBCS) to student.					
22.	Provision of Multiple Entry and Multiple Exit options.	42.22	26.67	15.56	6.67	8.89
23.	Use of Arts and Sports integrated pedagogy.	42.22	31.11	11.11	4.44	11.11
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.	46.67	31.11	11.11	4.44	6.67
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).	51.11	20.00	15.56	2.22	11.11
	Total	**44.71**	**26.84**	**13.42**	**7.38**	**7.64**

From the above table it can be inferred that close to half of the teacher educators in Chhattisgarh are fully aware of the reforms - Introducing 4-year Integrated Teacher Education Programme (ITEP); Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs); Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline; Shift from content based curriculum to competency/outcome based curriculum; Establishment of Academic Bank of Credits (ABC) in HEIs; Promotion of SWAYAM & DIKSHA platform for professional development of teachers, and Scope for Continuous Professional Development (CPD) of Teachers; and Introducing National Level Common Entrance Test by National Testing Agency (NTA) Emphasis on developing 21st century skills in Teacher Education Programmes.- while rest of the reforms are lesser known to teacher educators in Chhattisgarh.

If we consider all the 25 reforms together, less than half of the teacher educators (44.71%) are fully aware of all the reforms. There are also about 7% of the teacher educators in Chhattisgarh in both the categories of partially aware and not aware. Overall, about 71% of the teacher educators of Chhattisgarh are either fully aware or aware of the given reforms. Thus, it can be said that awareness of the reform in Chhattisgarh is encouraging

4.2.1.7 Percentage analysis of level of awareness of teacher educators of Maharashtra about provisions under National Education Policy (NEP) 2020 -

To analyse the level of awareness of teacher educators of Maharashtra about provisions under National Education Policy (NEP) 2020, percentage of responses of teacher educators of Maharashtra on each item of the awareness scale in categories of fully aware, aware, can't say, partially aware and not aware were calculated as shown in table 4.7-

Table 4.7.: Level of awareness of teacher educators of Maharashtra

S.N.	Reform suggested by NEP 2020	Level of Awareness				
		Fully Aware	Aware	Can't say	Partially Aware	Not Aware
1.	Introducing 4-year Integrated Teacher Education Programme (ITEP).	46.67	16.67	10.00	16.67	10.00
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).	40.00	16.67	16.67	13.33	13.33
3.	Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.	40.00	20.00	6.67	20.00	13.33
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.	33.33	23.33	6.67	30.00	6.67
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.	33.33	23.33	16.67	16.67	10.00
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.	43.33	20.00	10.00	16.67	10.00
7.	Recommendations for NCF - FS	20.00	36.67	16.67	20.00	6.67
8.	Shift from content-based curriculum to competency/outcome-based curriculum.	26.67	33.33	20.00	16.67	3.33
9.	Development of National Curriculum Framework for Teacher Education (NCFTE).	33.33	26.67	13.33	23.33	3.33
10.	Emphasizing experiential learning in curriculum transaction	40.00	26.67	13.33	13.33	6.67
11.	Emphasis of ITEP curriculum with specialization at 4 levels.	26.67	26.67	13.33	26.67	6.67
12.	Sustained integration of internship & extended school immersion in TE programme.	36.67	23.33	13.33	20.00	6.67
13.	Development of National Professional Standards for Teachers (NPST).	30.00	33.33	16.67	20.00	0.00
14.	Setting up Higher Education Commission India (HECI) as apex body with four verticals.	33.33	23.33	16.67	23.33	3.33
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.	36.67	23.33	13.33	20.00	6.67
16.	Establishment of Light but Tight Regulatory System.	30.00	26.67	13.33	16.67	13.33
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.	43.33	23.33	0.00	20.00	13.33

18.	Scope for Continuous Professional Development (CPD) of Teachers.	40.00	13.33	13.33	20.00	13.33
19.	Recommendations for NCF -SE	26.67	33.33	13.33	20.00	6.67
20.	Provision of Career Progression of Teachers.	36.67	16.67	16.67	23.33	6.67
21.	Provision of Choice Based Credit System (CBCS) to student.	33.33	26.67	16.67	13.33	10.00
22.	Provision of Multiple Entry and Multiple Exit options.	36.67	23.33	3.33	23.33	13.33
23.	Use of Arts and Sports integrated pedagogy.	30.00	26.67	13.33	20.00	10.00
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.	36.67	26.67	10.00	20.00	6.67
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).	40.00	20.00	13.33	20.00	6.67
	Total	**34.93**	**24.40**	**12.67**	**19.73**	**8.27**

From the above table it can be inferred that close to half of the teacher educators in Maharashtra are fully aware of the reforms - Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs); Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner, Emphasizing experiential learning in curriculum transaction, Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner and Promotion of SWAYAM & DIKSHA platform for professional development of teachers - while rest of the reforms are lesser known to teacher educators in Maharashtra.

If we consider all the 25 reforms together, around 34.93% of the teacher educators are fully aware of all the reforms. There are also about 10-12% of the teacher educators in Maharashtra in both the categories of partially aware and not aware. Overall, about 59.33% of the teacher educators of Maharashtra are either fully aware or aware of the given reforms. Thus, it can be said that awareness of the reform in Maharashtra is more encouraging. However, there is a scope for making all the teacher educators of Maharashtra aware about various reforms as suggested by NEP 2020 awareness is the very first step for making implementation of the reform smooth and realistic.

4.2.1.8 Percentage analysis of level of awareness of teacher educators of Gujarat about provisions under National Education Policy (NEP) 2020 -

To analyse the level of awareness of teacher educators of Gujarat about provisions under National Education Policy (NEP) 2020, percentage of responses of teacher educators of Gujarat on each item of the awareness scale in categories of fully aware, aware, can't say, partially aware and not aware were calculated as shown in table 4.6-

Table 4.8.: Level of awareness of teacher educators of Gujarat

S.N.	Reform suggested by NEP 2020	Level of Awareness				
		Fully Aware	Aware	Can't say	Partially Aware	Not Aware
1.	Introducing the 4-year Integrated Teacher Education Programme (ITEP).	65	20	0	2.5	12.5
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).	62.5	20	0	7.5	10
3.	Embedding Indian Knowledge Systems (IKS) in the curriculum as one of the essential component.	50	25	5	12.5	7.5
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.	55	27.5	2.5	12.5	2.5
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.	60	17.5	10	5	7.5
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.	60	17.5	10	12.5	0
7.	Recommendations for NCF - FS	32.5	30	22.5	12.5	2.5
8.	Shift from content-based curriculum to competency/outcome-based curriculum.	67.5	12.5	7.5	5	7.5
9.	Development of National Curriculum Framework for Teacher Education (NCFTE).	47.5	30	5	2.5	15
10.	Emphasising experiential learning in curriculum transaction	52.5	32.5	2.5	0	12.5
11.	Emphasis of ITEP curriculum with specialisation at 4 levels.	22.5	42.5	12.5	10	12.5
12.	Sustained integration of internship & extended school immersion in TE programme.	42.5	27.5	12.5	5	12.5
13.	Development of National Professional Standards for Teachers (NPST).	50	30	2.5	7.5	10
14.	Setting up Higher Education Commission	37.5	27.5	12.5	15	7.5

	India (HECI) as apex body with four verticals.					
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.	52.5	27.5	2.5	5	12.5
16.	Establishment of Light but Tight Regulatory System.	42.5	22.5	10	12.5	12.5
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.	65	15	2.5	5	12.5
18.	Scope for Continuous Professional Development (CPD) of Teachers.	62.5	15	10	2.5	10
19.	Recommendations for NCF -SE	55	20	2.5	12.5	10
20.	Provision of Career Progression of Teachers.	35	35	12.5	7.5	10
21.	Provision of Choice Based Credit System (CBCS) to student.	47.5	30	7.5	2.5	12.5
22.	Provision of Multiple Entry and Multiple Exit options.	55	25	7.5	2.5	10
23.	Use of Arts and Sports integrated pedagogy.	62.5	17.5	10	0	10
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.	52.5	20	15	2.5	10
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).	57.5	17.5	0	12.5	12.5
	Total	**51.70**	**24.20**	**7.40**	**7.00**	**9.70**

From the above table it can be inferred that more than half of the teacher educators in Gujarat are fully aware of the reforms - Introducing 4-year Integrated Teacher Education Programme (ITEP); Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs); Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline; Emphasis on developing 21st century skills in Teacher Education Programmes; Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner; Recommendations for NCF – FS; Shift from content based curriculum to competency/outcome based curriculum; Development of National Professional Standards for Teachers (NPST); Establishment of Academic Bank of Credits (ABC) in HEIs; Promotion of SWAYAM & DIKSHA platform for professional development of teachers; Scope for Continuous Professional Development (CPD) of Teachers; Recommendations for NCF -SE; Provision of Choice Based Credit System (CBCS) to student; Provision of

Multiple Entry and Multiple Exit options; Use of Arts and Sports integrated pedagogy; Extensive use of Technology like AR, VR, AI and Online Teaching, and Introducing National Level Common Entrance Test by National Testing Agency (NTA)- while rest of the reforms are lesser known to teacher educators in Gujarat.

If we consider all the 25 reforms together, around 51.70% of the teacher educators are fully aware of all the reforms. There are also about 7-10% of the teacher educators in Gujarat in both the categories of partially aware and not aware. Overall, about 76.90% of the teacher educators of Gujarat are either fully aware or aware of the given reforms.

4.2.1.9 Percentage analysis of level of awareness of teacher educators of Goa about provisions under National Education Policy (NEP) 2020 -

To analyse the level of awareness of teacher educators of Goa about provisions under National Education Policy (NEP) 2020, percentage of responses of teacher educators of Goa on each item of the awareness scale in categories of fully aware, aware, cann't say, partially aware and not aware were calculated as shown in table 4.6-

Table 4.9: Level of awareness of teacher educators of Goa

S.N.	Reform suggested by NEP 2020	Level of Awareness				
		Fully Aware	Aware	Can't say	Partially Aware	Not Aware
1.	Introducing 4-year Integrated Teacher Education Programme (ITEP).	83.33	16.67	0.00	0.00	0.00
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).	66.67	33.33	0.00	0.00	0.00
3.	Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.	66.67	33.33	0.00	0.00	0.00
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.	66.67	33.33	0.00	0.00	0.00
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.	66.67	33.33	0.00	0.00	0.00
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.	66.67	33.33	0.00	0.00	0.00
7.	Recommendations for NCF - FS	33.33	33.33	16.67	16.67	0.00
8.	Shift from content-based curriculum to competency/outcome based curriculum.	33.33	50.00	16.67	0.00	0.00

9.	Development of National Curriculum Framework for Teacher Education (NCFTE).	33.33	50.00	16.67	0.00	0.00
10.	Emphasising experiential learning in curriculum transaction	50.00	33.33	16.67	0.00	0.00
11.	Emphasis of ITEP curriculum with specialisation at 4 levels.	33.33	66.67	0.00	0.00	0.00
12.	Sustained integration of internship & extended school immersion in TE programme.	33.33	50.00	16.67	0.00	0.00
13.	Development of National Professional Standards for Teachers (NPST).	16.67	66.67	16.67	0.00	0.00
14.	Setting up Higher Education Commission India (HECI) as apex body with four verticals.	33.33	50.00	16.67	0.00	0.00
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.	33.33	50.00	16.67	0.00	0.00
16.	Establishment of Light but Tight Regulatory System.	16.67	66.67	16.67	0.00	0.00
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.	33.33	66.67	0.00	0.00	0.00
18.	Scope for Continuous Professional Development (CPD) of Teachers.	50.00	33.33	16.67	0.00	0.00
19.	Recommendations for NCF -SE	50.00	33.33	16.67	0.00	0.00
20.	Provision of Career Progression of Teachers.	33.33	50.00	16.67	0.00	0.00
21.	Provision of Choice Based Credit System (CBCS) to students.	50.00	33.33	16.67	0.00	0.00
22.	Provision of Multiple Entry and Multiple Exit options.	50.00	33.33	16.67	0.00	0.00
23.	Use of Arts and Sports integrated pedagogy.	50.00	33.33	16.67	0.00	0.00
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.	33.33	50.00	16.67	0.00	0.00
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).	50.00	50.00	0.00	0.00	0.00
	Total	**45.33**	**43.33**	**10.67**	**0.67**	**0.00**

From the above table it can be inferred that more than 60% of the teacher educators in Goa are fully aware of the reforms – Introducing 4-year Integrated Teacher Education Programme (ITEP); Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs); Embedding Indian Knowledge Systems (IKS) in curriculum as one of the

essential component; Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline; Emphasis on developing 21st century skills in Teacher Education Programmes, and Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner- while rest of the reforms are lesser known to teacher educators in Goa.

If we consider all the 25 reforms together, around 45.33% of the teacher educators are fully aware of all the reforms. There are also about less than 1% of the teacher educators in Goa in the categories of partially aware. Overall, about 88.66% of the teacher educators of Goa are either fully aware or aware of the given reforms. Thus, it can be said that awareness of the reform in Goa is quite encouraging.

4.2.2.1 Attitudes of teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education.

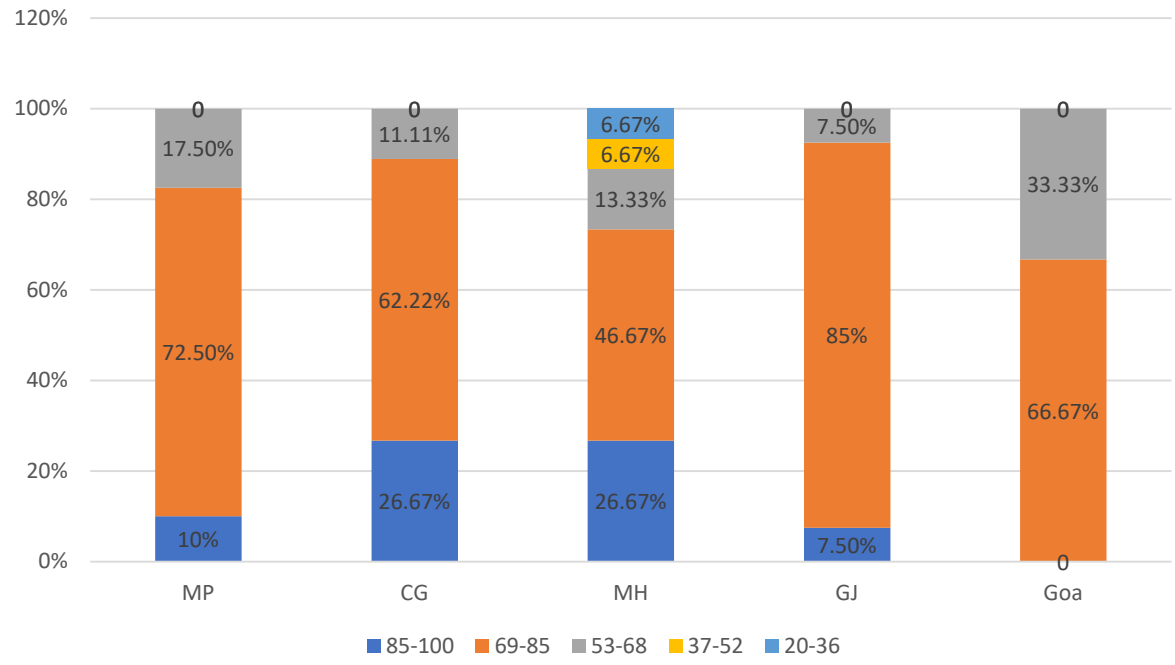
In order to determine the attitude of Teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education. data were collected from teacher educators with the help of Likert Type Attitude Scale from 167 teacher educators from different TEIs of five states of western India (MP, CG, MH, GJ and Goa). The attitude level is represented in table – 4.10

Table: 4.10 Percentage (%) of Teacher educators of Western Region of India at different levels of attitude towards reforms in, envisioned in NEP 2020, in teacher education.

S.N.	Score Range	Attitude Levels	State wise percentage of teacher educators					Overall Percentage of teacher educators
			MP	CG	MH	GJ	Goa	
1.	85-100	Most Favourable	10%	26.67%	26.67%	7.50%	0	16.17%

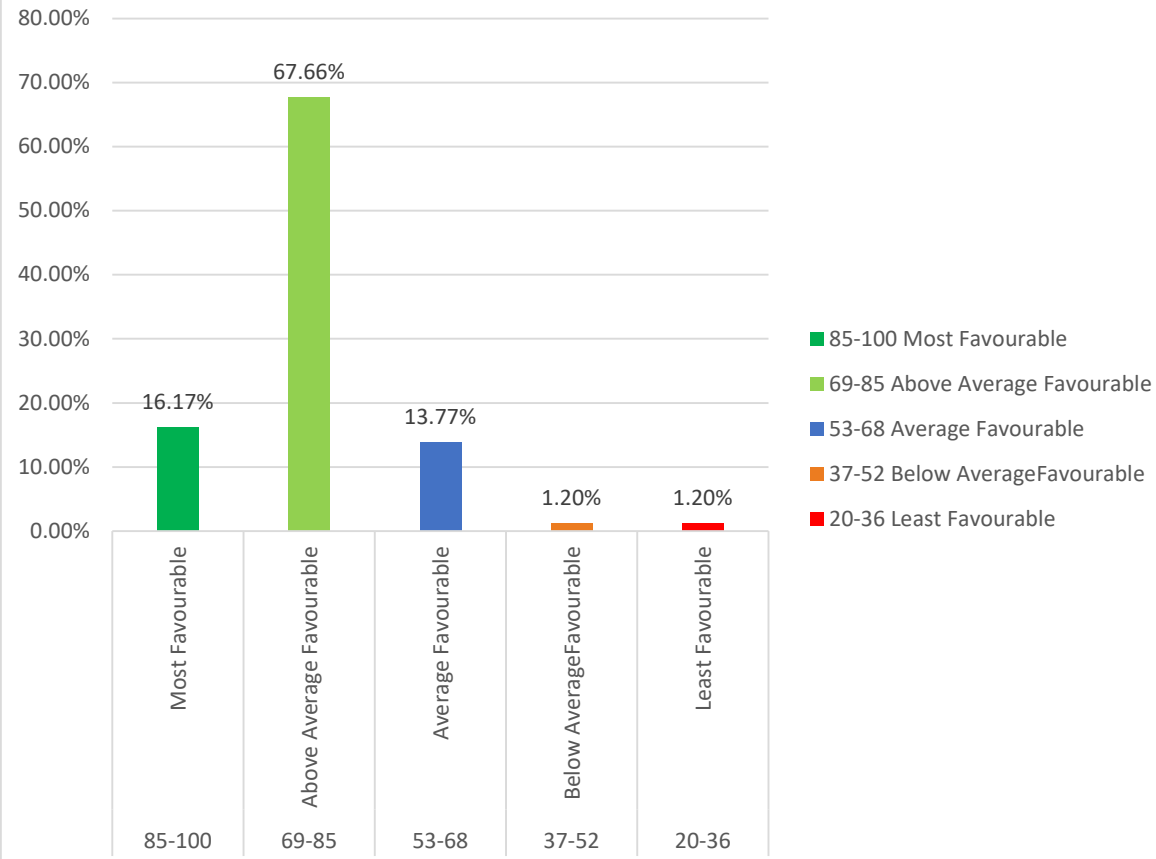
2.	69-85	Above Average Favourable	72.50%	62.22%	46.67%	85%	66.67%	67.66%
3.	53-68	Average Favourable	17.50%	11.11%	13.33%	7.50%	33.33%	13.77%
4.	37-52	Below Average Favourable	0	0	6.67%	0	0	1.20%
5.	20-36	Least Favourable	0	0	6.67%	0	0	1.20%

Fig. 4.10.1 State-wise Teacher educators of Western Region of India at different levels of attitude towards reforms in, envisioned in NEP 2020, in teacher education



It is evident from the table that majority of teacher educators of Western region of India have above average favourable or most favourable attitude towards reforms in, envisioned in NEP 2020, in teacher education i.e. 67.66 % and 16.17% respectively. Only 13.77% teacher educators of Western region of India have average favourable attitude towards reforms in, envisioned in NEP 2020, in teacher education and almost negligible teacher educators have average favourable and least favourable attitude towards reforms in, envisioned in NEP 2020, in teacher education i.e. 1.20% both.

Fig. 4.10.2 Teacher educators of Western Region of India at different levels of attitude towards reforms in, envisioned in NEP 2020, in teacher education.

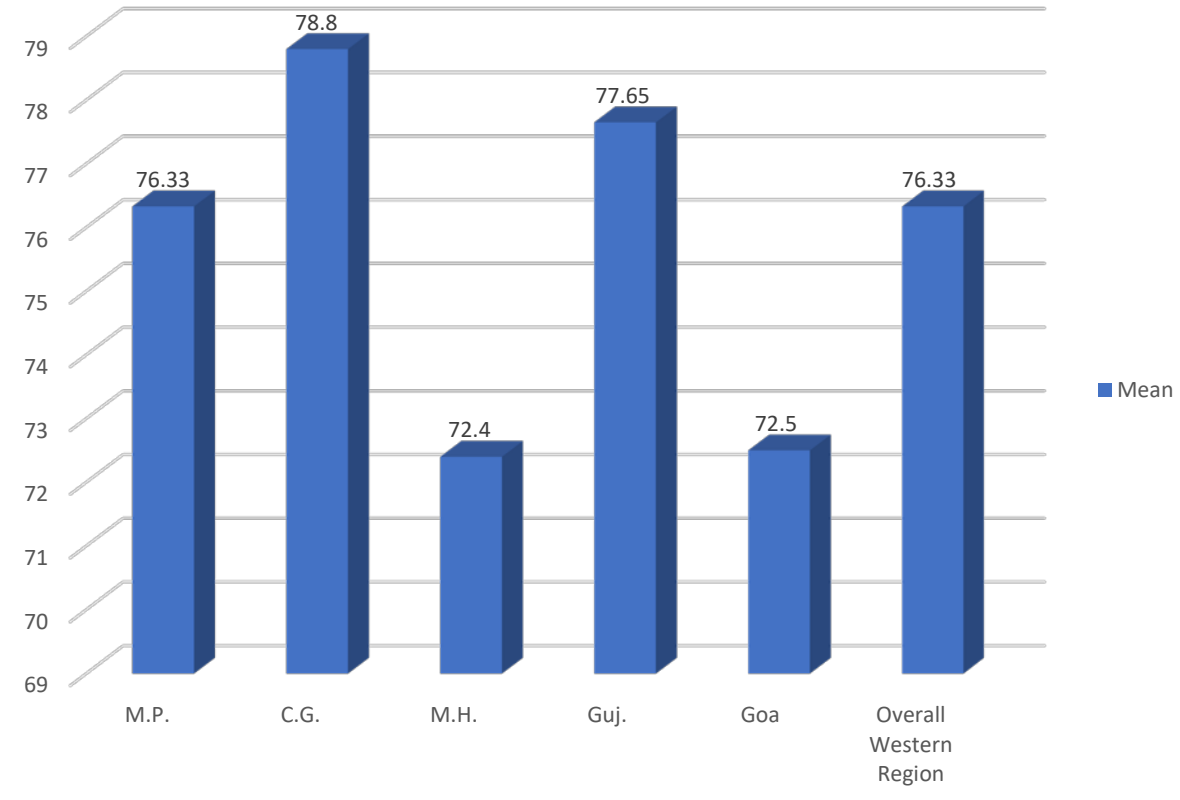


Mean and SD of Attitudes of teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education.

Table 4.11 Showing mean and SD value of attitude score of teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education.

S.N.	State	N	Mean	SD
1.	M.P.	40	76.33	7.78
2.	C.G.	45	78.80	7.30
3.	M.H.	30	72.40	17.23
4.	Guj.	40	77.65	6.03
5.	Goa	12	72.50	5.42
	Overall	167	76.33	9.83

Dig 4.11.1 Mean Attitude Score of Teacher educators of Western Region of India at different levels of attitude towards reforms in, envisioned in NEP 2020, in teacher education



It is clear from the table 4.11 and digram 4.1 that mean attitude score of teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education is high i.e. 76.33. It may be observed that mean attitude scores of different states of western region i.e. MP, CG, MH, GJ and Goa are 76.33, 78.8, 72.4, 77.67 and 72.5 respectively which also indicate high attitude of teacher educators of different states western region of India towards reforms in, envisioned in NEP 2020, in teacher education.

4.2.3.1: Perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities

In order to ascertain the perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities data were collected through Questionnaire from teacher educators of different states i.e. M.P., C.G. M.H., Guj. and Goa of western region of India.

To analyse the perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities, item wise percentage analysis has been done as shown in following table 4.12

Table: 4.12 Showing item wise percentage analysis of the perceptions of teacher educators of western region of India regarding implications of NEP 2020 on their professional roles and responsibilities.

S.N.	Statement	N=167	
		% Yes	% No
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	94.61	5.39
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	95.81	4.19
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	95.81	4.19
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teachers?	88.62	11.38
5.	Do you feel professionally competent, integrating AI, AR, and VR with the	71.26	28.74

	pedagogy of the school subject of your specialization?		
6.	Do you feel professionally competent, in integrating arts and sports activities with the school subject of your specialization?	77.25	22.75
7.	Do you feel professionally competent, in aligning the teacher education curriculum of your institution with NCFTE or NCTE?	74.25	25.75
8.	Do you feel professionally competent, in structuring the course and developing mechanisms to provide opportunity of Multiple Entry and Exit to your pupil teachers?	56.89	43.11
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portals like SWAYAM and DIKSHA?	84.34	15.66
10.	Do you feel professionally competent in organizing B.Ed. internship programme as per NCFTE of NCTE?	83.23	16.77
11.	Do you feel professionally competent, in creating an experiential learning environment in teacher education classes?	80.24	19.76
12.	Do you feel professionally competent, in creating a competency-based learning environment in your teacher education classrooms?	75.45	24.55
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	80.24	19.76
14.	Are you comfortable with alignment of content, pedagogy and technology in 4-Year integrated programme, envisioned in the curriculum framework of NCTE?	65.87	34.13
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	70.06	29.94

The above table shows that teacher educators have positive perception regarding the implications of NEP 2020 on their professional roles and responsibilities since most of the teacher educators opine in favour of the NEP 2020 implications on their professional roles and responsibilities with the statements given below:

1. Most of the teacher educators (94.61%) of Western Region of India perceive that they are professionally competent, in terms of content knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme.
2. Most of the teacher educators (95.81%) of Western Region of India perceive that they are professionally competent, in terms of pedagogical knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme

3. Most of the teacher educators (95.81%) of Western Region of India perceive that they are professionally competent, in terms of technological knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme.
4. Most of the teacher educators (88.62%) of Western Region of India perceive that they are professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teachers.
5. Majority of the teacher educators (71.26%) of Western Region of India perceive that they are professionally competent, integrating AI, AR, and VR with the pedagogy of the school subject of your specialization.
6. Majority of the teacher educators (77.25%) of Western Region of India perceive that they are professionally competent, in integrating arts and sports activities with school subjects of your specialization.
7. Majority of the teacher educators (74.25%) of Western Region of India perceive that they are professionally competent, in aligning the teacher education curriculum of your institution with NCFTE of NCTE.
8. Majority of the teacher educators (56.89%) of Western Region of India perceive that they are professionally competent, in structuring the course and developing mechanisms to provide opportunity of Multiple Entry and Exit to their pupil teachers.
9. Most of the teacher educators (84.34%) of Western Region of India perceive that they are professionally competent, in developing skills, among their pupil teachers, to use portals like SWAYAM and DIKSHA.
10. Most of the teacher educators (83.23%) of Western Region of India perceive that they are professionally competent, in organizing B.Ed. internship programme as per NCFTE of NCTE.
11. Most of the teacher educators (80.24%) of Western Region of India perceive that they are professionally competent, in creating experiential learning environments in teacher education classes.
12. Majority of the teacher educators (75.45%) of Western Region of India perceive that they are professionally competent, in creating competency-based learning environments in their teacher education classrooms.
13. Most of the teacher educators (80.24%) of Western Region of India perceive that they agree with embedding Indian values & ethos in teacher education curriculum.

14. Majority of the teacher educators (65.87%) of Western Region of India perceive that they are comfortable with alignment of content, pedagogy and technology in the 4-Year integrated programme, envisioned in the curriculum framework of NCTE.
15. Majority of the teacher educators (70.06%) of Western Region of India perceive that they are comfortable while implementing the reforms suggested by NPE 2020 in your organization.

4.2.3.2 State -wise Tables for the Perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.

Table 4.13: Perceptions of teacher educators of Madhya Pradesh State for implications of NEP 2020 on professional roles and responsibilities.

S.N.	Statement	Percentage (N=40)	
		% Yes	% No
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at4-year Integrated Teacher Education Programme?	95	5
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?	97.5	2.5
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?	97.5	2.5
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teacher?	95	5
5.	Do you feel professionally competent, integrating AI, AR, and VR with pedagogy of school subject of your specialization?	72.5	27.5
6.	Do you feel professionally competent, in integrating arts and sports activities with school subject of your specialization?	75	25
7.	Do you feel professionally competent, in aligning teacher education curriculum of your institution with NCFTE of NCTE?	90	10
8.	Do you feel professionally competent, in structuring the course and developing mechanism to provide opportunity of Multiple Entry and Exit to your pupil teachers?	67.5	32.5
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portal like SWAYAM and DIKSHA?	95	5
10.	Do you feel professionally competent, in organizing B.Ed. internship programme as per NCFTE of NCTE?	95	5
11.	Do you feel professionally competent, in creating experiential learning	85	15

	environment in teacher education classes?		
12.	Do you feel professionally competent, in creating competency based learning environment in your teacher education classrooms?	72.5	27.5
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	87.5	12.5
14.	Are you comfortable with alignment of content, pedagogy and technology in 4-Year integrated programme, envision in curriculum framework of NCTE?	82.5	17.5
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	85	15

Table 4.14: Perceptions of teacher educators of Chhattisgarh state for implications of NEP 2020 on professional roles and responsibilities.

S.N.	Statement	Percentage (N=45)	
		% Yes	% No
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at4-year Integrated Teacher Education Programme?	93.33	6.67
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?	95.56	4.44
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	95.56	4.44
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teacher?	73.33	26.67
5.	Do you feel professionally competent, integrating AI, AR, and VR with the pedagogy of the school subject of your specialization?	55.56	44.44
6.	Do you feel professionally competent, in integrating arts and sports activities with the school subject of your specialization?	68.89	31.11
7.	Do you feel professionally competent, in aligning the teacher education curriculum of your institution with NCFTE or NCTE?	53.33	46.67
8.	Do you feel professionally competent, in structuring the course and developing mechanisms to provide opportunity of Multiple Entry and Exit to your pupil teachers?	37.78	62.22
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portals like SWAYAM and DIKSHA?	73.33	26.67
10.	Do you feel professionally competent in organizing B.Ed. internship programme as per NCFTE of NCTE?	66.67	33.33
11.	Do you feel professionally competent, in creating an experiential learning environment in teacher education classes?	71.11	28.89

12.	Do you feel professionally competent, in creating competency based learning environments in your teacher education classrooms?	71.11	28.89
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	68.89	31.11
14.	Are you comfortable with alignment of content, pedagogy and technology in a 4-Year integrated programme, envisioned in the curriculum framework of NCTE?	48.89	51.11
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	55.56	44.44

Table:4.15 Perceptions of teacher educators of Maharashtra State for implications of NEP 2020 on professional roles and responsibilities.

S.N.	Statement	Percentage	
		% Yes	% No
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at4-year Integrated Teacher Education Programme?	96.67	3.33
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?	100.00	0.00
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?	100.00	0.00
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teacher?	93.33	6.67
5.	Do you feel professionally competent, integrating AI, AR, and VR with pedagogy of school subject of your specialization?	76.67	23.33
6.	Do you feel professionally competent, in integrating arts and sports activities with school subject of your specialization?	93.33	6.67
7.	Do you feel professionally competent, in aligning teacher education curriculum of your institution with NCFTE of NCTE?	90.00	10.00
8.	Do you feel professionally competent, in structuring the course and developing mechanism to provide opportunity of Multiple Entry and Exit to your pupil teachers?	73.33	26.67
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portal like SWAYAM and DIKSHA?	93.33	6.67
10.	Do you feel professionally competent, in organizing B.Ed. internship	93.33	6.67

	programme as per NCFTE of NCTE?		
11.	Do you feel professionally competent, in creating experiential learning environment in teacher education classes?	93.33	6.67
12.	Do you feel professionally competent, in creating competency-based learning environment in your teacher education classrooms?	93.33	6.67
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	93.33	6.67
14.	Are you comfortable with alignment of content, pedagogy and technology in 4-Year integrated programme, envision in curriculum framework of NCTE?	80.00	20.00
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	80.00	20.00

Table: 4.16 Showing item wise percentage analysis of the perceptions of teacher educators of Gujarat regarding implications of NEP 2020 on their professional roles and responsibilities.

S.N.	Statement	Percentage	
		% Yes	% No
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	92.5	7.5
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	95	5
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	95	5
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teachers?	97.5	2.5
5.	Do you feel professionally competent, integrating AI, AR, and VR with the pedagogy of school subject of your specialization?	85	15
6.	Do you feel professionally competent, in integrating arts and sports activities with the school subject of your specialization?	75	25
7.	Do you feel professionally competent, in aligning the teacher education curriculum of your institution with NCFTE of NCTE?	72.5	27.5
8.	Do you feel professionally competent, in structuring the course and developing mechanisms to provide opportunity of Multiple Entry and Exit to your pupil teachers?	57.5	42.5
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portals like SWAYAM and DIKSHA?	75	22.5

10.	Do you feel professionally competent in organizing B.Ed. internship programme as per NCFTE of NCTE?	77.5	22.5
11.	Do you feel professionally competent, in creating an experiential learning environment in teacher education classes?	70	30
12.	Do you feel professionally competent, in creating competency-based learning environments in your teacher education classrooms?	67.5	32.5
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	70	30
14.	Are you comfortable with alignment of content, pedagogy and technology in a 4-Year integrated programme, envisioned in the curriculum framework of NCTE?	52.5	47.5
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	60	40

Table:4.17 Perceptions of teacher educators of Maharashtra state for implications of NEP 2020 on professional roles and responsibilities.

S.N.	Statement	Percentage	
		Yes	No
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at4-year Integrated Teacher Education Programme?	96.67	3.33
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	100.00	0.00
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	100.00	0.00
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teacher?	93.33	6.67
5.	Do you feel professionally competent, integrating AI, AR, and VR with the pedagogy of the school subject of your specialization?	76.67	23.33
6.	Do you feel professionally competent, in integrating arts and sports activities with the school subject of your specialization?	93.33	6.67
7.	Do you feel professionally competent, in aligning the teacher education curriculum of your institution with NCFTE or NCTE?	90.00	10.00
8.	Do you feel professionally competent, in structuring the course and developing mechanisms to provide opportunity of	73.33	26.67

	Multiple Entry and Exit to your pupil teachers?		
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portal like SWAYAM and DIKSHA?	93.33	6.67
10.	Do you feel professionally competent in organizing B.Ed. internship programme as per NCFTE of NCTE?	93.33	6.67
11.	Do you feel professionally competent, in creating an experiential learning environment in teacher education classes?	93.33	6.67
12.	Do you feel professionally competent, in creating competency-based learning environments in your teacher education classrooms?	93.33	6.67
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	93.33	6.67
14.	Are you comfortable with alignment of content, pedagogy and technology in 4-Year integrated programme, envision in curriculum framework of NCTE?	80.00	20.00
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	80.00	20.00

Table 4.18 Perceptions of teacher educators of Goa state for implications of NEP 2020 on professional roles and responsibilities.

S.N.	Statement	Percentage	
		Yes%	No%
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at4-year Integrated Teacher Education Programme?	92.5	7.5
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?	95	5
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?	95	5
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teacher?	95	5
5.	Do you feel professionally competent, integrating AI, AR, and VR with pedagogy of school subject of your specialization?	82.5	17.5
6.	Do you feel professionally competent, in integrating arts and sports activities with school subject of your specialization?	72.5	27.5
7.	Do you feel professionally competent, in aligning teacher education curriculum of your institution with NCFTE of NCTE?	70	30

8.	Do you feel professionally competent, in structuring the course and developing mechanism to provide opportunity of Multiple Entry and Exit to your pupil teachers?	55	45
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portal like SWAYAM and DIKSHA?	72.5	25
10.	Do you feel professionally competent, in organizing B.Ed. internship programme as per NCFTE of NCTE?	75	25
11.	Do you feel professionally competent, in creating an experiential learning environment in teacher education classes?	67.5	32.5
12.	Do you feel professionally competent, in creating a competency based learning environment in your teacher education classrooms?	65	35
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	67.5	32.5
14.	Are you comfortable with alignment of content, pedagogy and technology in 4-Year integrated programme, envision in curriculum framework of NCTE?	50	50
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	60	40

Table 4.19 Perceptions of teacher educators of Chhattisgarh state for implications of NEP 2020 on professional roles and responsibilities.

S.N.	Statement	Percentage	
		Yes %	No%
1.	Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at4-year Integrated Teacher Education Programme?	93.33	6.67
2.	Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	95.56	4.44
3.	Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme?	95.56	4.44
4.	Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teacher?	73.33	26.67
5.	Do you feel professionally competent, integrating AI, AR, and VR with the pedagogy of the school subject of your specialization?	55.56	44.44
6.	Do you feel professionally competent, in integrating arts and sports activities with the school subject of your specialization?	68.89	31.11
7.	Do you feel professionally competent, in aligning the teacher education curriculum of your institution with NCFTE of NCTE?	53.33	46.67
8.	Do you feel professionally competent, in structuring the course and developing mechanisms to provide opportunity of Multiple Entry	37.78	62.22

	and Exit to your pupil teachers?		
9.	Do you feel professionally competent, in developing skills, among your pupil teachers, to use portal like SWAYAM and DIKSHA?	73.33	26.67
10.	Do you feel professionally competent, in organizing B.Ed. internship programme as per NCFTE of NCTE?	66.67	33.33
11.	Do you feel professionally competent, in creating an experiential learning environment in teacher education classes?	71.11	28.89
12.	Do you feel professionally competent, in creating a competency based learning environment in your teacher education classrooms?	71.11	28.89
13.	Do you agree with embedding Indian values & ethos in teacher education curriculum?	68.89	31.11
14.	Are you comfortable with alignment of content, pedagogy and technology in the 4-Year integrated programme, envisioned in the curriculum framework of NCTE?	48.89	51.11
15.	Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?	55.56	44.44

4.2.4.1 Preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020, as perceived by Heads of TEIs and State Level Functionaries of Western Region of India.

To determine the Preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020 data were collected through interview schedule from various heads of the institutions/ organizations.

Table:4.20 Preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020, as perceived by Heads of TEIs and State Level Functionaries of Western Region of India.

S.N.	Statement	Percentage		Reason	
		Yes %	No %	Yes	No
1.	Is your Institute ready to implement reforms in teacher education envisioned in NEP 2020, including Integrated Teacher Education Program (ITEP)?	100	0	Already running the ITEP Course Already applied for ITEP	

2.	Does your institute have required infrastructure to implement reforms in teacher education envisioned in NEP 2020?	87.5	12.5	Infrastructure, Learning Resources Laboratories, Seminar Hall, latest gadgets Faculty Have almost all infra and faculty with collaboration with the university Department.	Infrastructure, Learning Resources, Laboratories, Seminar Hall, latest gadgets
3.	Does your institute have a required number of faculty members to run ITEP?	25	75	Already running B.Ed.-M.Ed. With collaboration with other departments. Need more faculty for ITEP	Not Operational Yet Need more faculty for ITEP Need faculty for teaching content courses.
4.	Do your faculty members possess necessary knowledge, understanding, and skills to handle the courses envisioned in ITEP curriculum framework brought out by NCTE?	37.5	12.5		Not Operational Yet training/Orientation/workshop is required e.g. IKS, ITEP model syllabus More training/Orientation/workshop is required e.g. IKS, ITEP model syllabus More training/Orientation/workshop is required e.g. IKS, ITEP model syllabus More training/Orientation/workshop is required e.g. IKS, ITEP model syllabus
		Not including can't say (50%)			
5.	Do any of your higher authorities have ever communicated with you regarding implementation of reforms in teacher education envisioned in NEP 2020?	100	0	Curriculum structure in terms of duration of programme, ITEP would be commenced from 2026-27 Regular seminars and meeting were conducted with authorities Already in the	

				process of ITEP Already in the process to apply for ITEP Regular feedbacks and meeting with V.C. Already in the process of ITEP Already in the process to apply for ITEP Regular feedbacks and meeting with V.C.	
6.	Have you ever communicated with your higher authorities regarding implementation of reforms in teacher education envisioned in NEP 2020 in your institute?	100	0	To commence ITEP, ISTTEP programme appointment of required faculty members and Infrastructure Regular feedback was submitted by the institution. Communicated with V.C.	

1. All Head (100%) of the Institutions are of the view that they are prepared to implement reforms in teacher education as envisioned in NEP 2020. Analysis of data further reveals that the majority of the institutions either have already initiated running the four-year integrated programme as suggested by NEP 2020 or they are in the process of applying for ITEP.
2. 87.5% of the institutions' heads are of the opinion that the required infrastructure like Laboratories, seminar halls, latest gadgets etc. are available with the institute. The additional required demand of the faculty may be taken by the collaboration with the other institutes including the university.
3. 25% of HODs are of the view that they have required faculty members in the institute while 75%HODs believe that they don't have required faculty members in the institutions to run ITEP courses. In both the cases they are needing more faculty to conduct different courses including ITEP.

4. 37% HODs are of the opinion that they are prepared to implement NEP reforms as most of their faculty members possess necessary knowledge, understanding and skills to handle course invasion NEP. 12.5% are of the view that they will not be in a position to implement various reforms as suggested by NEP 2020 as faculty do not have the requisite necessary knowledge, understanding and skills it is noticing to mention that almost 50% of the HODs do not have any opinion on this count.
5. Almost all the HODs are of the view that their higher authorities have ever communicated with you regarding implementation of reforms in teacher education envisioned in NEP 2020.
6. All the HODs are of the view that they communicated with your higher authorities regarding implementation of reforms in teacher education envisioned in NEP 2020 in their institutes.

4.2.5.1 Strengths, Weaknesses, Opportunities and Challenges (SWOC) in the implementation of NEP 2020 in teacher education.

- **Key Strengths**
  - High level of Awareness of Teacher Educators and other stake holders
  - Most Favourable or above average favourable attitude of Majority of teacher educators
  - Positive perception of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.
  - Effective academic leadership
  - Sufficient number of faculty members
  - Well Equipped infrastructure and learning resources.
  - Practice of self-assessment
  - Effective policy guidelines
- **Major Weaknesses**
  - Shortage of qualified faculty members for teaching content papers in teacher education institution
  - Variation in teacher education programme in higher education and school education in different states.

- Variation in decisions on decision making authorities
- Less accountability of the Teachers Educators
- Lack of Collaboration and coordination of teacher education departments /institutions with other university departments or institutions
- Dealey in permanent appointments

➢ **Opportunities**

- High demand of the programme
- Good Infrastructure of the institutions
- Collaboration with different departments.
- Good demand of trained & well qualified teachers in schools
- Opportunity to get dual degree in shorter time
- Rules allowing sharing of ideas/resources
- Multiple path ways integration of content and pedagogy availability of good technological resources & software.

➢ **Challenges**

❖ **Challenges with respect to implementing reforms in teacher education envisioned in NEP 2020.**

- Availability of less time content delivery
- Defining curriculum in its real perspective
- Rigidness on the part of administration and management.
- Un availability of techno friendly culture and environment.
- Multiple path ways integration of content and pedagogy

❖ **Challenges of standalone teacher education institutes to face in transition to multidisciplinary institutions.**

- Shortage of funds
- More than one regularity bodies.
- Entering into collaboration with other institution.
- Indulgency of management for many reasons.
- Non clarity on reforms in specific
- Difficult process of recognition.

CHAPTER 5
Findings and Recommendations

5.1.0 Introduction

This chapter presents major findings, conclusions drawn from the results, and recommendations for further improving the effectiveness of the studied phenomenon. The suggestions for further research are also included in this chapter. The present research was undertaken to study the implementation of NEP 2020. The study was guided by five objectives.

5.2.0 Objective Wise Findings

5.2.1 Major findings related to objective 1 (To study the level of awareness of teacher educators in Western Region of India about provisions under National Education Policy (NEP) 2020)

- The average ratings for all 25 assertions of awareness scale range from 3.55 to 3.88 out of 5 which means that teacher educators usually agree with or have a positive view of the changes or reforms recommended by NEP 2020 for teacher education.
- The item with the highest mean score of 3.88 was "*Use of Technology* (AR, VR, AI, Online Teaching)." This means that the teacher educator who answered think that digital transformation is the most important or well-integrated part of modern teacher education.
- Teacher educators opine that Continuous Professional Development (CPD) of teachers (3.85) and the Emphasis on developing 21st-century skills" (3.84) are also very important. This shows that the focus is changing to lifelong learning and updating the tools that teachers use.
- "Experiential learning in curriculum transaction" (3.82) and the use of "SWAYAM & DIKSHA" (3.81) suggest that there is a lot of support for shifting away from

traditional way of learning promoting rote memorization to interactive, tech-enabled platforms.

- The change from a 2-year B.Ed. to a 4-year ITEP has an average score of 3.58, whereas the "Integration of internship and school immersion" has a better score of 3.79. This means that Teacher educators agree with the change to a 4-year degree, but they appreciate the practical, hands-on parts (internships) much more.
- On the other hand, the "Light but Tight Regulatory System" got the lowest average score of 3.55. It also has the largest Standard Deviation (0.96), which means that respondents are more likely to disagree or be unsure about how well the government can reconcile "light" autonomy with "tight" control.
- The study reveals that the 4-year ITEP model is seen as a strong way to make teacher education fit the needs of the 21st century.
- The teacher educators of the western region of India have a comprehensive level of awareness of almost all the major provisions under National Education Policy (NEP) 2020 since the majority of the teacher educators are fully aware or aware with the statements related to the provisions under NEP 2020. The areas in which teacher educators are Fully aware and Aware are-
  - Introducing the 4-year Integrated Teacher Education Programme (ITEP).
  - Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).
  - Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.
  - Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.
  - Emphasis on developing 21st century skills in Teacher Education Programmes.
  - Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.
  - Shift from content-based curriculum to competency/outcome-based curriculum.
  - Development of National Curriculum Framework for Teacher Education (NCFTE).
  - Emphasising experiential learning in curriculum transaction
  - Emphasis of ITEP curriculum with specialization at 4 levels.

- Sustained integration of internship & extended school immersion in TE programme.
- Development of National Professional Standards for Teachers (NPST).
- Establishment of Academic Bank of Credits (ABC) in HEIs.
- Promotion of SWAYAM & DIKSHA platform for professional development of teachers.
- Scope for Continuous Professional Development (CPD) of Teachers.
- Recommendations for NCF -SE
- Provision of Career Progression of Teachers.
- Provision of Choice Based Credit System (CBCS) to student.
- Provision of Multiple Entry and Multiple Exit options.
- Use of Arts and Sports integrated pedagogy.
- Extensive use of Technology like AR, VR, AI and Online Teaching.

➢ The areas in which teacher educators are partially aware or not aware are-

- Recommendations for NCF – FS
- Setting up Higher Education Commission India (HECI) as apex body with four verticals.
- Establishment of Light but Tight Regulatory System.

5.2.2 Major findings related to objective (To study the attitudes of teacher educators of Western Region of India towards reforms envisioned in NEP 2020, in teacher education)

➢ Majority of teacher educators of Western region of India have above average favourable (67.66%) or most favourable (16.17%) attitude towards reforms in, envisioned in NEP 2020, in teacher education.

➢ Only 13.77% teacher educators of Western region of India have average favourable attitude towards reforms in, envisioned in NEP 2020, in teacher education

➢ Almost Negligible teacher educators (1.20%) have below average favourable and least favourable attitude towards reforms in, envisioned in NEP 2020, in teacher education.

- Mean attitude score of teacher educators of Western Region of India towards reforms in, envisioned in NEP 2020, in teacher education is high i.e. 76.33.
- Mean attitude scores of different states of western region i.e. MP, CG, MH, GJ and Goa are 76.33, 78.8, 72.4, 77.67 and 72.5 respectively which also indicate high attitude of teacher educators of different states of western region of India towards reforms in, envisioned in NEP 2020, in teacher education.

5.2.3 Major findings related to objective 3 (To investigate the perceptions of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities)

- Teacher educators have positive perception regarding the implications of NEP 2020 on their professional roles and responsibilities.
- Most of the teacher educators (94.61%) of Western Region of India perceive that they are professionally competent, in terms of content knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme.
- Most of the teacher educators (95.81%) of Western Region of India perceive that they are professionally competent, in terms of pedagogical knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme.
- Most of the teacher educators (95.81%) of Western Region of India perceive that they are professionally competent, in terms of technological knowledge, to teach the student teachers at the 4-year Integrated Teacher Education Programme.
- Most of the teacher educators (88.62%) of Western Region of India perceive that they are professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teachers.
- Majority of the teacher educators (71.26%) of Western Region of India perceive that they are professionally competent, integrating AI, AR, and VR with the pedagogy of the school subject of your specialization.

- Majority of the teacher educators (77.25%) of Western Region of India perceive that they are professionally competent, in integrating arts and sports activities with school subjects of their specialization.
- Majority of the teacher educators (74.25%) of Western Region of India perceive that they are professionally competent, in aligning the teacher education curriculum of their institution with NCFTE of NCTE.
- Majority of the teacher educators (56.89%) of Western Region of India perceive that they are professionally competent, in structuring the course and developing mechanisms to provide opportunity of Multiple Entry and Exit to their pupil teachers.
- Most of the teacher educators (84.34%) of Western Region of India perceive that they are professionally competent, in developing skills, among their pupil teachers, to use portals like SWAYAM and DIKSHA.
- Most of the teacher educators (83.23%) of Western Region of India perceive that they are professionally competent, in organizing B.Ed. internship programme as per NCFTE of NCTE.
- Most of the teacher educators (80.24%) of Western Region of India perceive that they are professionally competent, in creating experiential learning environments in teacher education classes.
- Majority of the teacher educators (75.45%) of Western Region of India perceive that they are professionally competent, in creating competency-based learning environments in their teacher education classrooms.
- Most of the teacher educators (80.24%) of Western Region of India perceive that they agree with embedding Indian values & ethos in teacher education curriculum.
- Majority of the teacher educators (65.87%) of Western Region of India perceive that they are comfortable with alignment of content, pedagogy and technology in the 4-Year integrated programme, envisioned in the curriculum framework of NCTE.

- Majority of the teacher educators (70.06%) of Western Region of India perceive that they are comfortable while implementing the reforms suggested by NPE 2020 in your organization.

5.2.4 Major findings related to objective 4 (To study the preparedness of teacher education institutions of Western Region of India in implementing the key reforms in teacher education proposed in NEP 2020, as perceived by Heads of TEIs and State Level Functionaries of Western Region of India)

- All Head (100%) of the Secondary Teacher Education Institutions are of the view that they are prepared to implement reforms in teacher education as envisioned in NEP 2020. Analysis of data further reveals that the majority of the institutions either have already initiated running the four-year integrated programme as suggested by NEP 2020 or they are in the process of applying for ITEP.
- 87.5% of the institutions' heads are of the opinion that the required infrastructure like Laboratories, seminar halls, latest gadgets etc. are available with the institute. The additional required demand of the faculty may be taken by the collaboration with the other institutes including the university.
- 25% of HODs are of the view that they have required faculty members in the institute while 75%HODs believe that they don't have required faculty members in the institutions to run ITEP courses. In both the cases they are needing more faculty to conduct different courses including ITEP.
- 37% HODs are of the opinion that they are prepared to implement NEP reforms as most of their faculty members possess necessary knowledge, understanding and skills to handle course invasion NEP. 12.5% are of the view that they will not be in a position to implement various reforms as suggested by NEP 2020 as faculty do not have the requisite necessary knowledge, understanding and skills it is noticing to mention that almost 50% of the HODs do not have any opinion on this count.
- Almost all the HODs are of the view that their higher authorities have ever communicated with you regarding implementation of reforms in teacher education envisioned in NEP 2020.

- All the HODs are of the view that they communicated with your higher authorities regarding implementation of reforms in teacher education envisioned in NEP 2020 in their institutes.
- Strengths, Weaknesses, Opportunities and Challenges (SWOC) in the implementation of NEP 2020 in teacher education.

5.2.5 Major findings related to objective 5 (To analyse Strengths, Weaknesses, Opportunities and Challenges (SWOC), in the implementation of NEP 2020 in teacher education)

- **Strengths**
  - High level of Awareness of Teacher Educators and other stake holders
  - Most Favourable or above average favourable attitude of Majority of teacher educators
  - Positive perception of teacher educators regarding the implications of NEP 2020 on their professional roles and responsibilities.
  - Effective academic leadership
  - Sufficient number of faculty members
  - Well Equipped infrastructure and learning resources.
  - Practice of self-assessment
  - Effective policy guidelines
- **Weaknesses**
  - Shortage of qualified faculty members for teaching content papers in teacher education institution
  - Lack of change proneness
  - Variation in teacher education programme in higher education and school education in different states.
  - Variation in decisions on decision making authorities
  - Less accountability of the Teachers Educators
- **Opportunities**
  - High demand of the programme
  - Good Infrastructure of the institutions

- ❖ Collaboration with different departments.
- ❖ Good demand of trained & well qualified teachers in schools
- ❖ Opportunity to get dual degree in shorter time
- ❖ Rules allowing sharing of ideas/resources
- ❖ Multiple path ways integration of content and pedagogy availability of good technological resources & software

➢ **Challenges**

- **Challenges with respect to implementing reforms in teacher education envisioned in NEP 2020.**
  - ❖ Availability of less time content delivery
  - ❖ Defining curriculum in its real perspective
  - ❖ Rigidness on the part of administration and management.
  - ❖ Unavailability of techno friendly culture and environment.
  - ❖ Multiple path ways integration of content and pedagogy
- **Challenges of standalone teacher education institutes to face in transition to multidisciplinary institutions.**
  - ❖ Shortage of funds
  - ❖ More than one regularity bodies.
  - ❖ Entering into collaboration with other institution.
  - ❖ Indulgency of management for many reasons.
  - ❖ Non clarity on reforms in specific
  - ❖ Difficult process of recognition.

5.3.0 Recommendations and Suggestions

To support India's vision of becoming a developed nation by 2027, education must be positioned at the core of national transformation. For this we need quality education and it is only possible through quality teacher education; and quality teacher education can only be imparted by dedicated and motivated teacher educators. Research findings show that teacher educators are usually agree with or have a positive view of the changes recommended by NEP 2020 so it is the high time when government should gear up the process of

implementation of NEP 2020. All action plans should be timely launched with proper planning.

- Teacher educators are welcoming the shift to 4 -year Integrated Teacher education Programme so proper support and guidance should be provided to teacher education institutions to start and run the Integrated teacher education programme (ITEP).
- Though in Most of the dimensions of NEP 2020 about teacher education, teacher educators are adequate aware, however, in few areas like NCF-FS, Establishing Higher Education Commission of India (HECI), Light but Tight Regulatory System teacher educators' awareness is lacking so special awareness campaign through seminar, webinar, training programmes may be organized.
- The changes made under NEP 2020 are having a big effect on how teacher education works in India. Of the four elements, curriculum and pedagogical reforms are the most important, followed by professional development programs, technological integration, and changes to how institutions are run. The results show that a complete and integrated approach that includes new curricula, changes to institutions, improving teachers' skills, and new technologies is necessary for making real and lasting changes in teacher education. For it, Curriculum developers while planning teacher education curriculum should give more emphasis on internship as perceived by teacher educators.
- In some states Teacher education is under school education while in some states it is under higher education so government should make a common policy for structural similarities in all the teacher training institutes of different states.
- Adequate appointment of qualified teachers for teaching pedagogy papers and content papers should be done.
- Collaboration and coordination of teacher education departments /institutions with other university departments or institutions should be promoted and facilitated by the concerned authorities.

References

- Aithal, P. S., & Aithal, S. (2020). Analysis of the Indian National Education Policy 2020 towards achieving its objectives. International Journal of Management, Technology, and Social Sciences (IJMTS), 5(2), 297–325. https://doi.org/10.47992/IJMTS.2581.6012.0116
- Barbhuiya, S. Y., Das, B., & Pramanik, R. (2021). Teacher education in the light of the National Education Policy, 2020 during COVID-19 in North-East India. Journal of Education and Development, 11(21), 148–155.
- Best, J. W., & Kahn, J. V. (2006). Research in education (10th ed.). Pearson Education.
- Bhati, D. (2025). An analytical study of policy perspective shift from NEP 1986 to NEP 2020 in Indian education [Doctoral dissertation, Tantia University]. Shodhganga. http://hdl.handle.net/10603/657208
- Chakradev, K., & Inamdar, V. (2022). Need for compulsory teacher education courses for higher education faculty for effective implementation of NEP 2020. International Journal of Advanced Research in Commerce, Management & Social Science (IJARCMSS), 5(2), 209–214.
- Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.
- Das, C. (2024). A critical study of National Education Policy NEP 2020 with reference to teacher education [Doctoral dissertation, Jain Vishwa Bharati University]. Shodhganga. http://hdl.handle.net/10603/689796
- Gajpal, K. N., & Das, C. (2024). Teacher leadership in educational reforms. In J. Khamari, P. Pandey, & H. K. Yadav (Eds.), Teacher education: Leadership and professional development (pp. 356–363). Red Unicorn Publishing.
- Govinda, R. (2020). National Education Policy 2020: A critical examination. Social Change, 50(4), 603–607. https://doi.org/10.1177/0049085720958804
- Govinda, R., & Josephine, Y. (2004). Para-teachers in India: A Review. National Institute of Educational Planning and Administration (NIEPA).

- Gupta, B. L., & Choubey, A. K. (2021). Higher education institutions – Some guidelines for obtaining and sustaining autonomy in the context of NEP 2020. International Journal of All Research Education and Scientific Methods (IJARESM), 9(1), 72–87.
- Kalyani, P. (2020). An empirical study on NEP 2020 [National Education Policy] with special reference to the future of Indian education system and its effects on the stakeholders. Journal of Management Engineering and Information Technology, 7(5), 1–17.
- Kaul, L. (1984). Methodology of Educational Research (3rd Revised ed.)
- Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.
- Kumar, K. (2005). Political agenda of education: A study of colonialist and nationalist ideas (2nd ed.). SAGE Publications.
- Lata, P., Gorakhnath, I., Rani, R., Sanyal, P., & Kaushal, R. (2022). National Education Policy (NEP)-2020: Transforming the landscape of teaching and learning in India. Journal of Positive School Psychology, 6(5), 5691–5699.
- Maharaj, G. M. S. G., Ahuja, M., & Malhotra, A. K. (2021). Implementation of National Education Policy (NEP) 2020 of India: A perspective on pedagogy from Bhagwad Gita. European Journal of Education Studies, 8(8), 144–161. https://doi.org/10.46827/ejes.v8i8.3844
- Mehta, B. C. (2012). Teacher Education in India: Issues and Concerns. Journal of Educational Planning and Administration.
- Ministry of Education. (2020). National Education Policy 2020. Government of India.
- National Council for Teacher Education. (2009). National Curriculum Framework for Teacher Education. Ministry of Human Resource Development, Government of India.
- National Council for Teacher Education. (2014). National Council for Teacher Education (Recognition Norms and Procedure) Regulations, 2014. The Gazette of India.
- National Council of Educational Research and Training. (2005). National curriculum framework 2005. NCERT.

- National University of Educational Planning and Administration. (2015). India: Education for All - National Review. NUEPA.
- Raju, B. (2022). Comment on new school education structure envisaged in NEP 2020. Quest Journals: Journal of Research in Humanities and Social Science, 10(11), 294–298.
- Rani, A. (2025). A comparative study of emotional intelligence and teaching attitude of prospective teachers in relation to their classroom performances at secondary level in western Uttar Pradesh [Doctoral dissertation, Mewar University]. Shodhganga. http://hdl.handle.net/10603/684831
- Shukla, A., Singh, A. K., & Rana, S. (2022). Demystifying approaches of holistic and multidisciplinary education for diverse career opportunities: NEP 2020. International Journal of Health Sciences, 6(S2), 5220–5229. https://doi.org/10.53730/ijhs.v6nS2.6178
- Sontakke, S. G., Kadam, D. B., & Vartale, S. P. (2022). National education policy (NEP) 2020: India's new and strong higher education program. Sumedha Journal of Management, 11(3), 433–438.
- Trilling, B., & Fadel, C. (2009). 21st century skills: Learning for life in our times. Jossey-Bass.
- UNESCO. (2015). Education 2030: Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4. UNESCO.
- Yenugu, S. (2022). The new National Education Policy (NEP) of India: Will it be a paradigm shift in Indian higher education? Perspectives: Policy and Practice in Higher Education, 26(4), 121–129. https://doi.org/10.1080/13603108.2022.2078901

Appendix

Appendix - I

Prospective Implications of National Education Policy (NEP) 2020 for Teacher Educators in Western Region of India

(Awareness Scale for Teacher Educators)

General Information

Name (Optional) and Designation of the Teacher Educators ……..

Gender: Male/Female; Educational Qualification.....…….

Name of the TEI: ……Locale: Urban/Rural

Programs Offered: D.El.Ed./B.Ed./M.Ed./ITEP(Foundational/Preparatory/Middle/Secondary)

Experience (In yrs): Discipline (At P.G level): Science/ Arts/Commerce/ Others……

State: …… District: …… Block:…….....

Note:-

This tool is meant to assess the awareness of teacher educators, working in Government Elementary and Secondary Teacher Educations Institutions of Western India, on aspects of reform in teacher education envisioned in NEP 2020 on a 5-point scale as below:

1. Fully Aware, 2. Aware, 3. Can't say, 4. Partially Aware, 5. Not Aware.

The respondents are required to read each aspect carefully and rate them based on the level of their awareness by putting tick mark in the appropriate box against each item. For example, if you have complete knowledge about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, please put tick mark under "Fully Aware" against the respective aspect; if you have reasonable knowledge about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, please put tick mark under "Aware" against the respective aspect; if you are in doubt about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, please put tick mark under "Can't say" against the respective aspect; if you feel that your knowledge is inadequate about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, please put tick mark under "Partially Aware" against the respective aspect; and if you do not have knowledge about the meaning and implications of the concept/approach/program/skill, etc. contained in the aspect, please put tick mark under "Not Aware" against the respective aspect.

You are requested to respond to each item in the tool. Your response will be kept confidential and be used for research purpose only.

1. Fully Aware, 2. Aware, 3. Can't say, 4. Partially Aware, 5. Not Aware.

S.N.	Reforms Suggested by NEP 2020	Extent of Awareness (tick mark)				
		1	2	3	4	5
1.	Introducing 4-year Integrated Teacher Education Programme (ITEP).					
2.	Integrating Teacher Education institutes into Multidisciplinary Higher Education Institutes (HEIs).					
3.	Embedding Indian Knowledge Systems (IKS) in curriculum as one of the essential components.					
4.	Integrated Teacher Education Programme (ITEP) leading to alignment of pedagogy & discipline.					
5.	Emphasis on developing 21st century skills in Teacher Education Programmes.					
6.	Transition from 2-year B.Ed. to 4-year Integrated Teacher Education Programme in gradual manner.					
7.	Recommendations for NCF - FS					
8.	Shift from content-based curriculum to competency/outcome-based curriculum.					
9.	Development of National Curriculum Framework for Teacher Education (NCFTE).					
10.	Emphasising experiential learning in curriculum transaction					
11.	Emphasis of ITEP curriculum with specialisation at 4 levels.					

12.	Sustained integration of internship & extended school immersion in TE programme.					
13.	Development of National Professional Standards for Teachers (NPST).					
14.	Setting up Higher Education Commission India (HECI) as apex body with four verticals.					
15.	Establishment of Academic Bank of Credits (ABC) in HEIs.					
16.	Establishment of Light but Tight Regulatory System.					
17.	Promotion of SWAYAM & DIKSHA platform for professional development of teachers.					
18.	Scope for Continuous Professional Development (CPD) of Teachers.					
19.	Recommendations for NCF -SE					
20.	Provision of Career Progression of Teachers.					
21.	Provision of Choice Based Credit System (CBCS) to student.					
22.	Provision of Multiple Entry and Multiple Exit options.					
23.	Use of Arts and Sports integrated pedagogy.					
24.	Extensive use of Technology like AR, VR, AI and Online Teaching.					
25.	Introducing National Level Common Entrance Test by National Testing Agency (NTA).					

Appendix - II

Prospective Implications of National Education Policy (NEP) 2020 for Teacher Educators in Western Region of India

(Attitude Scale for Teacher Educators)

General Information

Name (Optional) and Designation of the Teacher Educators ……..

Gender: Male/Female; Educational Qualification.....…….

Name of the TEI: ……Locale: Urban/Rural

Programs Offered: D.El.Ed./B.Ed./M.Ed./ITEP(Foundational/Preparatory/Middle/Secondary)

Experience (In yrs): …. Discipline (At P.G level): Science/ Arts/Commerce/ Others……

State: …… District: …… Block:…….....

Note to the Teacher Educator: This tool, containing 20 statements, is meant to assess the attitude of teacher educators, working in Government Elementary and Secondary Teacher Educations Institutions of Western India, on aspects of reform in teacher education envisioned in NEP 2020 on a 5-point scale:

1. Strongly Agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

The respondents are required to read each statement carefully and rate them by putting tick mark in the appropriate box against each statement. For example, if you are fully agree with concept/approach/program/skill, etc. contained in the statement, please put tick mark under "Strongly Agree" against the respective statement; if you are simply agree with concept/approach/program/skill, etc. contained in the statement, please put tick mark under "Agree" against the respective statement; if you are in doubt about the meaning and implications of the concept/approach/program/skill, etc. contained in the statement, please put tick mark under "Undecided" against the respective statement; if you are not agree with the meaning and implications of the concept/approach/program/skill, etc. contained in the statement, please put tick mark under "Disagree" against the respective statement; if you are fully disagree with the meaning and implications of the concept/approach/program/skill, etc. contained in the statement, please put tick mark under "Fully Disagree" against the respective statement.

You are required to read each statement carefully and respond accordingly. Your response will be kept confidential and be used for research purpose only.

(Investigator)

1. Strongly Agree, 2. Agree, 3. Undecided, 4. Disagree, 5. Strongly disagree.

S.N.	Statements	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
1.	Integrated Teacher Education Program (ITEP) will be the minimum degree qualification for teaching at any stage of school education, is justified.					
2.	Looking into dynamic nature of content there should be a shift from content-based curriculum to competency-based curriculum.					
3.	Teaching through Art Integrated Learning pedagogy is waste of time.					
4.	Experiential Learning is the only solution for enhancing quality of teaching learning.					
5.	Internship provide an opportunity to experience the school in working.					
6.	National Professional Standards for teachers are of no use for teacher recruitment and promotion.					
7.	Multiple Entry and Exit one of the best suggestion by NEP 2020.					
8.	Indian Knowledge System (IKS) should be Integrated into curricula for different Teacher Education Programs.					
9.	ITEP is a dual-major holistic bachelor degree.					
10.	Introduction of Light But Tight system is a boon to improve the quality of teacher education.					
11.	The dual major degree design in ITEP adds to relevance of the program.					
12.	50 hours of participation in Continuous					

	Professional Development (CPD) programs by Teachers every year will enhance the quality of education.					
13.	SWAYAM and DIKSHA platforms are contributing in Continues Professional Development of teachers in less time.					
14.	Teacher Education programs should function in multi-disciplinary institutions only.					
15.	Admission through National Common Entrance Test (NCET) by NTA is a good step to select appropriate candidates.					
16.	Teaching Artificial Intelligence in teacher education is needed for quality teachers.					
17.	Standalone teacher education institutions should not be permitted to run teacher education programs.					
18.	Retired faculty should not be involved in professional development programs for teachers.					
19.	Admission to pre-service teacher education program should be uniform across the country					
20.	Ph.D. scholars, irrespective of discipline should take courses in teaching/ pedagogy related to their subject.					

Appendix - III

Prospective Implications of National Education Policy (NEP) 2020 for Teacher Educators in Western Region of India

(Questionnaire for Teacher Educators)

General Information

Name (Optional) and Designation of the Teacher Educators …….

Gender: Male/Female; Educational Qualification.....…….

Name of the TEI: ……Locale: Urban/Rural

Programs Offered: D.El.Ed./B.Ed./M.Ed./ITEP(Foundational/Preparatory/Middle/Secondary)

Experience (In yrs): …. Discipline (At P.G level): Science/ Arts/Commerce/ Others……

State: …… District: …… Block:…….....

Dear Madam/Sir,

This tool contains 16 items seeking your perceptions on the implications of NEP 2020 on your professional roles and responsibilities in the implementation of key reforms in teacher education envisioned in NEP 2020, including 4-year Integrated Teacher Education Program (ITEP). You are required to read each statement carefully and respond accordingly. Your response will be kept confidential and be used for research purpose only.

(Investigators)

1. Do you feel professionally competent, in terms of content knowledge, to teach the student teachers at4-year Integrated Teacher Education Programme?

   Yes/No

   If yes, please state the level of your competence:

   a. High
   b. Average
   c. Low

2. Do you feel professionally competent, in terms of pedagogical knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?

   Yes/No

If yes, please state the level of your competence:

a. High
b. Average
c. Low

3. Do you feel professionally competent, in terms of technological knowledge, to teach the student teachers at 4-year Integrated Teacher Education Programme?

Yes/No

If yes, please state the level of your competence:

a. High
b. Average
c. Low

4. Do you feel professionally competent, in organising activities and adopting pedagogy for developing 21st century skills among pupil teacher?

Yes/No

If yes, what and how:……..……...

If no, specify:……..…….

5. Do you feel professionally competent, integrating AI, AR, and VR with pedagogy of school subject of your specialization?

Yes/No

If yes, what and how: ……..…….

If no, specify: ……..…….

6. Do you feel professionally competent, in integrating arts and sports activities with school subject of your specialization?

Yes/No

If yes, what and how:…….

If no, specify:……..…….

7. Do you feel professionally competent, in aligning teacher education curriculum of your institution with NCFTE of NCTE?

Yes/No

If yes, what and how: ……..…….

If no, specify: ……..…….

8. Do you feel professionally competent, in structuring the course and developing mechanism to provide opportunity of Multiple Entry and Exit to your pupil teachers?

Yes/No

If yes, what and how: ……..…….

If no, specify: ……..…….

9. Do you feel professionally competent, in developing skills, among your pupil teachers, to use portal like SWAYAM and DIKSHA?

Yes/No

If yes, what and how: …….

If no, specify: ……

10. Do you feel professionally competent, in organizing B.Ed. internship programme as per NCFTE of NCTE?

Yes/No

If yes, what and how: ……..……

If no, specify: ……..…….

11. Do you feel professionally competent, in creating experiential learning environment in teacher education classes?

Yes/No

If yes, what and how: ……..……..

If no, specify: ……..……

12. Do you feel professionally competent, in creating competency-based learning environment in your teacher education classrooms?

Yes/No

If yes, what and how: …….

If no, specify: …….

Do you agree with embedding Indian values & ethos in teacher education curriculum?

Yes/No

If yes, what and how: ……..…….

If no, specify: ……..…….

13. Are you comfortable with alignment of content, pedagogy and technology in 4-Year integrated programme, envision in curriculum framework of NCTE?

Yes/No

If yes, what and how: ……

If no, specify: ……

14. Do you feel comfortable while implementing the reforms suggested by NPE 2020 in your organization?

Yes/No

If yes, what and how: ……..

If no, specify: ……..….

15. What challenges do the stand-alone teacher education institutes are likely to face while making transition to multidisciplinary institutions? Please state:

……

……

……

Appendix - IV

Prospective Implications of National Education Policy (NEP) 2020 for Teacher Educators in Western Region of India

(Interview Schedule for Heads of Teacher Education Institutes)

General Information

Name (Optional) and Designation of the Faculty…….

Gender: Male/Female; Educational Qualification: .....…….

Name of the TEI: ……..… Locale: Urban/Rural

Programs Offered: D.El.Ed./B.Ed./M.Ed./ITEP(Foundational/Preparatory/Middle/Secondary)

Experience (In yrs):..… Discipline (At P.G level): Science/ Arts/Commerce/ Others……

State: …… District: ……..… Block: …….....

Dear Madam/Sir,

This tool contains 10 items seeking your opinions/views on the preparedness, in terms of infrastructure, strengths and capacity of faculty, to implement reforms in teacher education envisioned in NEP 2020, including Integrated Teacher Education Program (ITEP).You are required to read each statement carefully and respond accordingly. Your response will be kept confidential and be used for research purpose only.

(Investigator)

1. Is your Institute ready to implement reforms in teacher education envisioned in NEP 2020, including Integrated Teacher Education Program (ITEP)?

   Yes/No

   If yes, please give your justification……..

   If no, state the reason (s)…….

2. Does your institute have required infrastructure to implement reforms in teacher education envisioned in NEP 2020?
   (e.g., classrooms, library, toilets, laboratories, technology gadgets)

Yes/No

If yes, why you feel so……..

If no, what more require…….

3. Does your institute have required number of faculty members to run ITEP?

Yes/No

If yes, why you feel so……..

If no, what more require…….

4. Do your faculty members possess necessary knowledge, understanding, and skills to handle the courses envisioned in ITEP curriculum framework brought out by NCTE?

Yes/No

If no, state the reason (s)…….

5. Do any of your higher authorities have ever communicated with you regarding implementation of reforms in teacher education envisioned in NEP 2020?

Yes/No

If yes, please specify the reforms ……

6. Have you ever communicated with your higher authorities regarding implementation of reforms in teacher education envisioned in NEP 2020 in your institute?

Yes/No

If yes, please specify……..

7. What according to you are the strengths of your institute to implement reforms in teacher education envisioned in NEP 2020?

i. …….....……

ii. …….....……

iii. …….....……

8. What according to you are the weaknesses of your institute to implement reforms in teacher education envisioned in NEP 2020?
   i. …….....……
   ii. …….....……
   iii. …….....……

9. What opportunity do you visualize to implement reforms in teacher education envisioned in NEP 2020?
   i. …….....……
   ii. …….....……
   iii. …….....……
10. What challenges do you visualize to implement reforms in teacher education envisioned in NEP 2020?
   i. …….....……
   ii. …….....……
   iii. …….....……

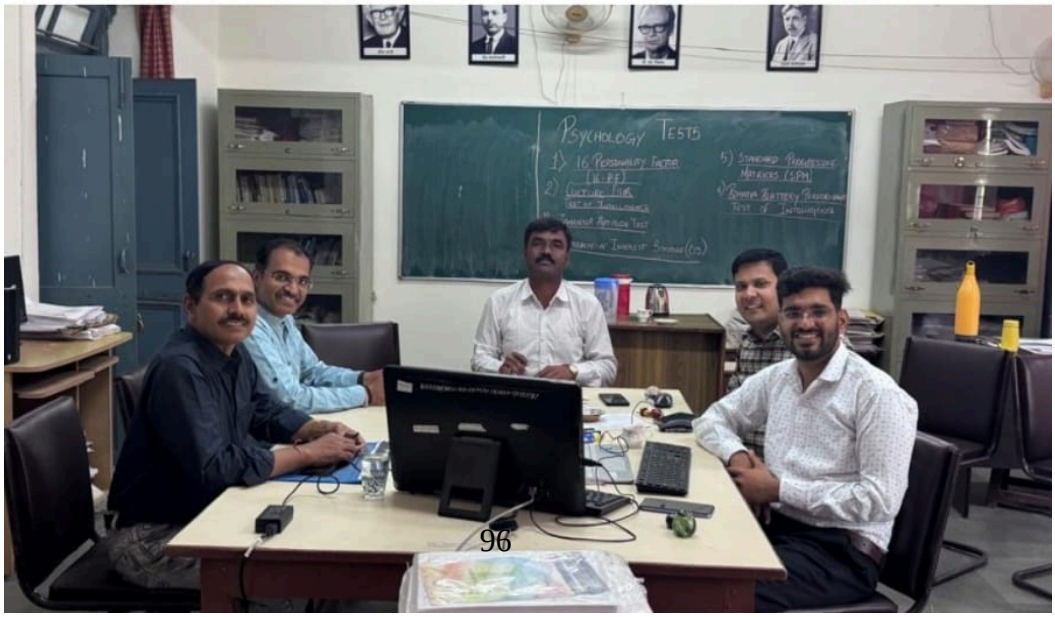









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PSYCHOLOGY TESTS
1) 16 PERSONALITY FACTOR (16 PF)
2) CULTURE FREE
5) STANDARD PROGRESSIVE MATRICES (SPM)


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SCHOOL OF EDUCATION



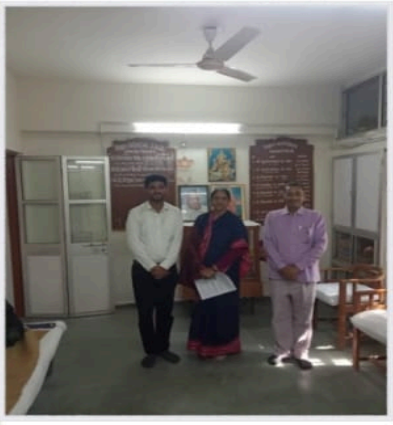

राज्य शैक्षिक अनुसंधान और प्रशिक्षण परि
छत्तीसगढ़


DR. P. A. INAMDAR UNIVERSITY, PUN


महाराष्ट्र शासन
राज्य शैक्षणिक संशोधन व प्रशिक्षण परिषद,महाराष्ट्र












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शिक्षा अध्ययन संस्थान बिलासपुर
stitute of Advanced Studies in Education Bilaspur


PSYCHOLOGY TESTS
1) 16 Personality Factor
2)
5) Standard Progressive
Matrices (SPM)




MANUU CAMPUS BHOPAL





विद्यया ऽ मृतमश्नुते

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