

ITEP Curriculum Implementation and Student Perceptions: An Institutional Case Study

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ABSTRACT

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

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

INTRODUCTION

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

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

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

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

POLICY CONTEXT AND CONCEPTUAL FRAMEWORK

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

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

REVIEW OF RELATED LITERATURE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

OBJECTIVES OF THE STUDY

The following are the objectives of the study:

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

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

HYPOTHESES

The Null hypothesis of the study is:

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

METHODOLOGY

Research Design

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

Sample

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

Tool

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

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

Validity and Reliability

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

DATA ANALYSIS

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

Data Preparation and Scoring

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

Reliability Analysis of the Attitude Scale

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

Descriptive Statistics

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

Table 1: t-test calculation to test Hypothesis

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

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

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

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

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

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

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

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

Table 4: ANOVA summary for the year of study

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

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

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

Mean Score Interpretation

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

Interpretation of Mean Scores

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

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

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

COMPONENT-WISE ANALYSIS

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

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

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

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

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

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

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

MAIN FINDINGS

The main findings of the study were

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

RESULTS

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

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

DISCUSSION

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

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

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

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

IMPLICATIONS FOR HIGHER EDUCATION

The study offers important implications:

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

CONCLUSION

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

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

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