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# Understanding Factors Affecting the Implementation of 4-year Integrated Teacher Education Programme

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## Abstract

Four-year Integrated Teacher Education Programme (ITEP) involves careful planning and implementation, and a thorough analysis of the various factors that are crucial for its success is essential. The present study focuses on understanding factors affecting implementation of 4-year Integrated B.Ed. A total of 211 respondents were taken as a sample through the purposive sampling technique. A self-made online questionnaire was used for data collection. Analysis of data was done using SmartPLS4 software to determine the relationship between variables. Findings reveal that variables, such as lack of infrastructure & resources, absence of specialized teachers, multiple entry and exit options, stage-specific specialization, financial limitations, internship issues and designing a new curriculum significantly and positively impacted the ITEP implementations. However, other constructs administrative

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challenges and course duration were not deemed significant in this study, suggesting no substantial impact on ITEP implementations. The study sheds light on factors that affect the implementation of the four-year B.Ed. programme, highlighting the critical factors influencing its success.

**Keywords:** Factors Affecting, Implementation, Integrated Teacher Education Programme, Teacher Educator.

### **Introduction**

Teacher education has rapidly and dramatically changed in India over the last twelve years. In 2012, the Supreme Court of India appointed Justice Verma Committee in response to the declining overall quality of teacher education throughout the nation, and it turned in its report entitled, *Vision of Teacher Education in India: Quality and Regulatory Perspective*. This committee's main recommendation was the transition from one year to two years B.Ed. programme. By amending its rules in 2014, the National Council for Teacher Education increased the B.Ed. programme's duration from one year to two years. As a result, the 1-year B.Ed. was scrapped, and the 2-year B.Ed. programme was then introduced for the academic session 2015-16. Although, two years' duration of B.Ed. programme was initially recommended by the National Curriculum Framework for Teacher Education (NCFTE) in 1998, and RIEs-NCERT (i.e. Ajmer, Bhopal, Bhubaneswar & Mysore) launched the two-year B.Ed. programme on a pilot basis in 2001.

After 34 years, the country launched the National Education Policy (NEP) 2020 which led to the introduction of the 4-year Teacher Education Programme for the preparation of pre-service teachers. ITEP provides a dual-major holistic undergraduate degree that combines a bachelor of education with a disciplinary or interdisciplinary field of study, offering courses such as B.Sc.

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B.Ed., B.Com. B.Ed. and B.A. B.Ed. Though, this programme is not new to the Indian education system, particularly in terms of teacher preparation programmes. Firstly, Kurukshetra University launched a four-year integrated programme in 1960, at the suggestion of Dr. A. C. Joshi (then Vice Chancellor of Punjab University at the time). This initiative was taken to create ‘quality teachers’. Then, it was launched at each of the four NCERT RCEs in 1963 (Ahmad, 2018).

The four-year B.Ed. course would improve educational standards to meet the demands of a highly technologically advanced society. The importance of teacher education was also acknowledged by the NEP 2020, which stated, “Teacher education is vital in creating a pool of school teachers that will shape the next generation. Teacher preparation is an activity that requires multidisciplinary perspectives and knowledge, formation of dispositions and values, and development of practice under the best mentors”. Thus, a multidisciplinary approach should be used to conduct the teacher training program under experienced mentors to prepare high-quality teachers. Consequently, the teacher's values, languages, and conduct will be embodied in their behaviour.

Moreover, the four-year ITEP saves a year of valuable time for students by finishing in four years as opposed to the traditional 3+2 years needed after Class XII (Bharati, 2019; Devananda, 2020; Mandal& Mete, 2023). It allows students to select a teaching career based solely on their preferences. Further, this course will equip teachers to teach in the NEP 2020 (5+3+3+4) new school system at the foundational, preparatory, middle, and secondary levels. To address children's varied learning needs and interests at every stage of schooling, ITEP aims to create a pool of competent teachers who can design effective teaching-learning-assessment strategies. However, only a multidisciplinary institution will be able to offer

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this programme. For this purpose, all stand-alone Teacher Education Institutes (TEIs) need to convert into multidisciplinary institutes to offer the 4-year integrated programme.

### **Literature Review**

The literature is advancing to tackle various challenges and issues related to the preparation of pre-service teachers. In his research, Ahmad (2018) outlined several vital issues related to the declining quality of teacher education. A few of these problems include teachers' declining moral values, hiring them with inadequate educational credentials, and their lack of enthusiasm, commitment, sincerity, and fundamental teaching skills.

Joshi et al. (2020) conducted a study on issues of pre-service teacher education in India. They observed that since most teacher training institutes are privately owned, they compromise on educational quality by favouring pupil-teachers in all areas, which lowers the standard of pre-service teachers. They further suggested that teacher induction, preparation, and appointment issues should be continuously monitored to ensure quality.

Kaushi and Others' (2021) survey indicates that most teacher educators have positive opinions toward the NEP-2020 approach and believe that it will soon address the problems related to the quality of teacher preparation in the upcoming year. Further, they anticipated that this policy would significantly change the teacher education process. On the other hand, they stated that this policy would increase the expense of education and thus the privileged class would only be able to afford it.

Many problems with implementing the four-year integrated teacher preparation programme were discovered by Bharati's (2019) study, one of which is the difficulty of selecting a specialised course at a young age (after class 12). She continued by saying that

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it is yet to be determined if the faculty members will teach pedagogy and content in ITEP as separate or combined components. But she also emphasised the program's benefits, stating that it can save candidates one year and offer two degrees concurrently, namely the B.Sc. B.Ed., B.Com. B.Ed. and B.A. B.Ed.

Devananda's (2020) study concluded that the four-year B.Ed. course saves students a significant year of study, offers a dual-major holistic undergraduate degree in education, and prepares quality teachers. However, he also pointed out that the four-year degree length could not be more effective for female candidates. Similarly, Mohanty's (2022) study indicates that the four-year Integrated B.Ed. spared candidates' four-year training, but he further noted that the programme's cost is still more than one or two years B.Ed. programmes.

In a post-NEP'20 study, Sharma and Kumar (2022) identified major challenges in teacher education institutions, including the outdated curriculum, no clear-cut process of admission, lack of regulatory body control over teacher education institutions, boring and traditional teaching methods, lack of opportunities for students to develop their life skills, lack of worthwhile extracurricular activities, difficulties with teaching practice, inadequate facilities, and a lack of competency among teacher educators.

In a comprehensive analysis of pre-service teachers' professional preparation, Dutta (2022) recommended that post-NEP-2020; teacher education bodies must take decisive action against any violation of teacher preparation norms and standards. He said that the teacher preparation process must be closely monitored and regularly audited to align with the school system and global standards.

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In research on challenges in implementing ITEP, Manani and Kumar (2023) found that the 4-year Integrated Teacher Education Programme appears similar to the previous 3+1-year course, where three years of general education and the remaining one year of professional training. Nonetheless, systemic flaws with the four-year Integrated B.Ed. affect its pedagogical planning and implementation. Further, they made the point that while running ITEP at multifunctional universities and institutions will be feasible, stand-alone TEIs will need huge infrastructure and highly qualified teaching staff in transition to multidisciplinary institutions.

According to the Meenakshi (2023) study, the four-year B.Ed. programme is a novel idea in teacher education, and a multidisciplinary academic setting helps them pursue subject-matter expertise. However, she expressed worry about how education and pedagogy subjects are integrated to make the course more comprehensive.

However, Mandal and Mete's (2023) study clarified that the four-year ITEP is not a revolutionary step forward in teacher education. They continued by saying that the integrated teacher preparation programme allows student-teachers to obtain a dual-major holistic undergraduate degree and save a year while simultaneously acquiring both subject knowledge and teaching skills. Furthermore, they added that excessive emphasis on education could hamper the mastery of other subjects.

### **Rationale of the Study**

Teacher education is crucial in creating future educators who will contribute to national development and shape the young generation. The two-year B.Ed. programme will be wended up by 2030, and the 4-year Integrated Teacher Education Programme will

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be implemented gradually following NEP 2020's recommendation. As a result, it will be the prerequisite for teaching at any level in schools across the country. The NCTE is facing difficulty integrating the recommendation of NEP 2020 into its present teacher education programmes, leading to a state of confusion (Manani& Kumar, 2023). However, the efficacy of any programme is assessed by its proper planning and implementation.

Numerous studies have been conducted on the difficulties and challenges of the Integrated Teacher Education Programme. The challenges with teacher education, as noted by Sharma and Kumar (2022), include outdated curriculum, dull and traditional teaching methods, lack of opportunities for students to develop their life skills, issues in putting lessons into practice, limited facilities, etc. Bharati (2019) asserted that choosing the four-year ITEP at an early age is challenging. At the same time, it is costlier than a two-year B.Ed. programme (Mohanty, 2022). Manani and Kumar (2023) discovered that although it will be possible to run ITEP at multifunctional institutions, stand-alone TEIs will require huge infrastructure and highly skilled teaching personnel to move to multidisciplinary institutions. In their study, Meenakshi (2023) voiced concerns regarding the way pedagogy and education are combined to create the course. No research, meanwhile, has tried to investigate the critical factors that impact the implementation of integrated teacher preparation programmes. Consequently, it is necessary to research the significant factors that ensure its effective implementation. Thus, the present study aims to investigate the different factors that affect the implementation of ITEP.

### **Objectives**

The authors have outlined the objective for this study to analyse the impact of various significant factors on 4-year Integrated Teacher Education Programmes' implementation.

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### **Hypothesis**

The following nine (09) hypotheses were developed to measure the impact of factors on the implementation of four-year ITEP:

- H<sub>1</sub>: There is a significant impact of lack of infrastructure and resources on four-year ITEP implementations.
- H<sub>2</sub>: There is a significant impact of the absence of specialised teachers on four-year ITEP implementations.
- H<sub>3</sub>: There is a significant impact of multiple entry and exit options on four-year ITEP implementations.
- H<sub>4</sub>: There is a significant impact of stage-specific specialisation on four-year ITEP implementations.
- H<sub>5</sub>: There is a significant impact of internship issues on four-year ITEP implementations.
- H<sub>6</sub>: There is a significant impact of designing a new curriculum on four-year ITEP implementations.
- H<sub>7</sub>: There is a significant impact of administrative challenges on four-year ITEP implementations.
- H<sub>8</sub>: There is a significant impact of course duration on four-year ITEP implementations.
- H<sub>9</sub>: There is a significant impact of financial limitations on four-year ITEP implementations.

### **Research Methodology**

The authors employed the descriptive research method and collected the data through an online survey.

*Sample:* The study sample was selected through the purposive sampling technique across India from teacher educators. The sample comprises 211 teacher educators, 139 were males and 72 were females. Among these 211 samples, 33 responses were from Professors, 45 from Associate Professors, and 133 from Assistant Professors. Regarding the teaching experience, 86 teacher educators

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had less than 5 years, 54 had 5 to 10 years, 26 had 11 to 15 years, and 45 had over 15 years of teaching experience.

*Research tool:* The authors constructed a structured Google Forms questionnaire in consultation with colleagues and experts from teacher education. The questionnaire comprised of 39 items and was divided into three parts (A, B & C), i.e. demographic profile, the effectiveness of the four-year ITEP, and factors affecting the implementation of the four-year ITEP. The first part consists of 5 items of demographic profile, including the participant's name, gender, designation, institution, and teaching experiences. Part B includes 7 items based on the effectiveness of ITEP and part C of the tool contains 27 items based on nine factors (i.e. lack of infrastructure and resources, absence of specialized teachers, multiple entry and exit options, stage-specific specialization, internship issues, designing a new curriculum, administrative challenges, course duration and financial limitations) and each factor included three items that dealt with factors affecting the implementation of the four-year B.Ed.

*Scale of measurement:* Every item in Part B and C was scored using a 5-point Likert Scale (1 for strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, & 5 for strongly agree). The responses of demographic information were taken on multiple choice and short answer.

*Statistical techniques:* Analysis of the perspective of teacher educators was done using frequency and percentage. The structural relationships between the variables were examined using Structure Equation Modeling (SEM). For SEM, SmartPLS4 Software was utilized.

*Procedure of data collection:* The authors shared a link to the Google Form through WhatsApp and Email to teacher educators

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nationwide. The responses of teacher educators were taken from March to April 2024.

**Data Analysis, Interpretation and Discussion**

This section summarises the data collected from the tool mentioned above. The analysis and interpretation of data were presented in structural relationships between the variables. The study used SmartPLS4 to measure confirmatory factors and estimate the causal relationship among the proposed hypothesis, which gives the following results:

**Table 1: Presenting the Average Variance Extracted (AVE) and Construct Reliability (CR) for the Validity and Reliability of the Items**

Factor		Cronbach Alpha	Factor Loadings	AVE	CR
Effectiveness	EF1	0.909	0.812	0.703	0.928
	EF2		0.791		
	EF3		0.846		
	EF4		0.788		
	EF5		0.805		
	EF6		0.830		
	EF7		0.758		
Lack of infrastructure & resources	INFRA1	0.750	0.841	0.746	0.857
	INFRA2		0.763		
	INFRA3		0.842		
Absence of specialized teachers	ABS1	0.861	0.909	0.648	0.912
	ABS2		0.873		
	ABS3		0.861		
Multiple entry and exit options	MEE1	0.789	0.805	0.776	0.877
	MEE2		0.849		
	MEE3		0.861		

Stage-specific specialization	SSS1	0.905	0.905	0.940	0.840
	SSS2		0.925		
	SSS3		0.921		
Internship issues	ITI1	0.821	0.845	0.756	0.893
	ITI2		0.865		
	ITI3		0.864		
Designing a new curriculum	DNC1	0.741	0.810	0.677	0.852
	DNC2		0.844		
	DNC3		0.780		
Administrative challenges	ADC1	0.830	0.849	0.658	0.898
	ADC2		0.866		
	ADC3		0.875		
Course duration	CD1	0.764	0.875	0.666	0.863
	CD2		0.800		
	CD3		0.792		
Financial limitations	FL1	0.841	0.916	0.736	0.903
	FL2		0.845		
	FL3		0.845		

**Source:** SmartPLS4 Statistics

Table-1 presents the items' construction reliability (CR) and average variance extracted (AVE), indicating their reliability and validity. The reliability of constructs is determined using Cronbach alpha, and it falls between 0.7 and 0.9 for all items that indicate internal consistency of scale. Both AVE and CR should have minimum values of 0.5 and 0.7, respectively. Almost all of the factors meet the requirements. The tool is therefore regarded as reliable and valid.

**Table 2: Result of Hypothesised Relationships Tested**

Dimensions	Beta ( $\beta$ )	P value	Result
Lack of infrastructure & resources	0.138	0.005	H <sub>1</sub> : Accepted

Absence of specialized teachers	0.141	0.001	H <sub>2</sub> : Accepted
Multiple entry and exit options	0.212	0.000	H <sub>3</sub> : Accepted
Stage-specific specialization	0.181	0.050	H <sub>4</sub> : Accepted
Internship issues	0.309	0.001	H <sub>5</sub> : Accepted
Designing a new curriculum	0.112	0.035	H <sub>6</sub> : Accepted
Administrative challenges	0.098	0.120	H <sub>7</sub> : Rejected
Course duration	0.048	0.379	H <sub>8</sub> : Rejected
Financial limitations	0.119	0.007	H <sub>9</sub> : Accepted

**Source: SmartPLS4 Statistics**

The proposed relationships between the independent and dependent variables are displayed in the above table (no. 2). The value of R Square is 0.699, which shows that the independent variable together explains 69.9 percent of the dependent variable. It can be observed from the results that the lack of infrastructure and resources has a positive impact on ITEP implementations ( $\beta=0.138$  &  $P<0.05$ ), thus, the hypothesis (H<sub>1</sub>) is accepted. The variable absence of specialized teachers positively impacts the implementation of ITEP ( $\beta=0.141$  &  $P<0.05$ ), thus, the hypothesis (H<sub>2</sub>) is accepted. The hypothesis (H<sub>3</sub>) is accepted since variable multiple entry and exit options have a positive impact on ITEP implementations ( $\beta=0.212$  &  $P<0.01$ ). The variable stage-specific specialization has a positive influence on ITEP implementations ( $\beta=0.181$  &  $P<0.05$ ), supporting the acceptance of hypothesis (H<sub>4</sub>). This result is in agreement with that of Bharati (2019), who found that selecting a specialized course at a young age is difficult. Hypothesis (H<sub>5</sub>) is also validated, the variable internship issues have a positive impact on ITEP implementations ( $\beta=0.309$  &  $P<0.05$ ). Likewise, another variable designing a new curriculum has a positive influence on ITEP implementations ( $\beta=0.112$  &  $P<0.05$ ), supporting hypothesis (H<sub>6</sub>). This finding is corroborated

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by Meenakshi (2023), who expressed concern over the integration of education with pedagogy subjects. Furthermore, it is found that the variable financial limitations positively impact ITEP implementations ( $\beta=0.119$  &  $P<0.05$ ), so the proposed hypothesis ( $H_9$ ) is accepted. Similar results have been found in the study conducted by Kaushi, et al. (2021) and Mohanty (2022). However, the study's results diverge in terms of other constructs, such as course duration and administrative challenges, which did not significantly impact ITEP implementations.

### **Conclusions**

Teacher education's goal is to produce competent teachers who can impact the destiny of the nation by shaping the next generation. The 4-year Integrated Teacher Education Programme is a unique endeavour in the realm of teacher education. Its provision of a dual-major holistic undergraduate degree to pre-service teachers, and also makes it distinct. In addition, ITEP saves one year of crucial time compared to the 2-year B.Ed. programme that spans the five years after Class XII. It's noteworthy to emphasize that joining this course is entirely up to the individual choice. Thus, the outcomes suggest that the four-year B.Ed. programme is a paradigm shift in the field of teacher education.

The effectiveness of the Integrated Teacher Education Programme (ITEP) mainly depends upon its proper implementation. However, this programme is influenced by a myriad of factors and these factors can vary based on the specific context of the teacher's training college or institution. The study's empirical results reveal that lack of infrastructure & resources, absence of specialized teachers, multiple entry and exit options, stage-specific specialization; financial limitations, internship issues and designing a new curriculum significantly and positively impact the ITEP implementations. However, the variable administrative

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challenges and course duration were not deemed significant in this study, suggesting no substantial impact on ITEP implementations.

### **Recommendation**

Policymakers and educational institutions need to take into account the significant issues and challenges associated with the four-year Integrated Teacher Education Programme while formulating a plan for its effective implementation. The study's findings highlight crucial variables that impact ITEP implementation, which led the authors to suggest recommendations for its successful implementation. These include financial assistance from the government to upgrade basic infrastructure and resources of government institutes to ensure the successful implementation of this programme. To spread awareness about ITEP and to dispel the fear of multiple entry and exit options, the NCTE and UGC must come forward with organizing different programmes related to ITEP. Additionally, institutions should also ensure strict alignment of the ITEP course with the NCF-2023 (National Curriculum Framework for School Education 2023). Furthermore, the authors advocate for institutions to specify the seat of ITEP with a proper ratio between different levels of specialization i.e. foundational, preparatory, middle and secondary. Teacher Education Institutions (TEIs) must recruit adequate numbers of trained teachers with different academic disciplines along with Yoga, Fine Arts, and Music teachers.

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