

Strengthening Self-regulated Learning in Teacher Education: An Analysis of Policy Alignment and Curriculum Integration

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Abstract

Equipping educators with strong Self-regulated Learning (SRL) skills empowers them to handle the demands of a rapidly changing society and educational reforms. SRL enables future educators to become lifelong learners and agents for nurturing SRL in their students, ultimately contributing to positive social transformation. In this context, this study critically analyses key policy documents including the National Education Policy 2020, the National Council for Teacher Education (NCTE) Amendment Regulations 2021, the NCTE Curriculum Framework for Integrated Teacher Education Programme (ITEP), and the Suggestive Syllabi for Secondary Stage ITEP. The research objective is to critically examine these documents' explicit and latent references to enhance Self-regulated Learning (SRL) competencies among prospective secondary school teachers within the Integrated Teacher Education Programme (ITEP). The study utilizes a framework adapted from Zimmerman and Moylan's (2009) Cyclical Model of SRL, by reviewing post-2005 experimental interventions on student-teacher self-regulated learning skills; encompassing five key components (Metacognition, Self-efficacy, Self-monitoring, Motivation, and Self-directed Learning) and seven core strategies (Task-analysis, Reflective practices, Self-assessment, Collaborative learning, Feedback, Planning, and Problem-solving). NEP 2020 emphasizes integrating SRL strategies into teacher education programmes, fostering lifelong learners and reflective practitioners. The conceptual model adopted in the study confirms that the learners' awareness of their thinking process, use of individualised learning strategies, and sustained motivation facilitate the development of teaching professionals who can handle the uncertainties of the rapidly changing society and related emerging reforms in higher education. The analysis reveals that while NCTE's suggested syllabi explicitly incorporate SRL strategies within the course content, practicum, and assessment approaches during the four-year programme, only motivation receives substantial focus. This discordance calls for enhancing metacognitive awareness and cultivating positive self-efficacy beliefs among prospective teachers, empowering them to become lifelong learners and agents for imparting SRL in their professional practice. These observations of this study emphasize the importance of situated learning environments and a transformative teacher education approach to cultivate SRL abilities in teachers. Equipping educators with all important SRL skills that empower them to handle the demands of a rapidly changing society and educational reforms, aligns with national aspirations for social transformation.

Keywords: ITEP, NEP 2020, Metacognition, Self-directed Learning, Self-regulated Learning Strategies

Introduction

Teacher education in India has evolved from an unstructured training approach

as in the Monitoring and Alarming System (1800–1880) followed by the Instruction for Teachers (1882–1935), and Education for Teachers System (1940 - present), to a

British-inspired training programme in the pre-independent period (Singh, 2022). The need for well-trained teaching professionals to fulfil the needs of the diversely populated Republic of India has led to the development of a systematic and secular training programme (Gill, 1954) in post-independent India. Traversing from the University Grants Commission (1948-1949) to the National Education Policy (2020), teacher education and its practices have evolved into a professional programme integrating theoretical and pedagogical practices and training for fulfilling the changing trends at the global level.

The rapid social transformation at the global level increases the need for a regularly updated educational system and educational professionals. UNESCO in its Global Report on Teachers (2023), a collaboration between UNESCO and the International Task Force on Teachers for Education 2030, stated, “to ensure quality education to all and meet the education targets of the 2030 Agenda, teachers who are aptly trained, supported and valued are essential.” (Education 2030, 2024). Currently, teachers cannot insist that their responsibilities be restricted to helping students improve their cognitive abilities alone. In addition, teachers today should possess extensive subject knowledge and the skills required to organize work groups, support learning, and be effective educators. They must also provide instruction, attend to students’ psychological well-being, and support their social integration (Eacute & Esteve, 2000).

This demand for the upskilling of the professional commitments of the teaching community along with the transforming society is identified by the National Education Policy 2020. It emphasizes the need for the development of lifelong learners, reflective practitioners, and self-directed learners. For example, the proposed new age system of teacher education, namely the Integrated Teacher Education Programme

(ITEP), highlights the significance of these Self-regulated Learning (SRL) Components and Strategies. SRL practices enable future educators to become lifelong learners and agents for nurturing SRL in their students, ultimately contributing to positive social transformation. The NEP 2020 calls attention to the inadequate hiring, placement, working conditions, empowerment, and preparation of teachers, all of which discourage them from trying to meet the learners’ expectations. It focuses on how educators affect the concerned learners and the future of the country, and how crucial it is to motivate and enable them to achieve age-specific and stage-specific results.

Timeline of Integrated Teacher Education Programme in India

Assisting the developing minds of their learners in finding the underlying roots that allow seemingly disparate and distant objects to come together and blossom from a single stem is the task of educators. Curriculum integration is one way that educators can help accomplish this goal (Fogarty, 1991). The framework of an integrated course for pre-service teacher education offers a curriculum integrating the pedagogy, content, and practicum throughout four years. The Integrated Teacher Education Programme is a dual-major undergraduate degree programme focusing on both the discipline subject and pedagogy and practicum of education. It is one of the mandates of the National Education Policy 2020 which has to be implemented as the minimum degree for teacher professionals by the year 2030. The NEP 2020 policy document states, The 4-year integrated B.Ed. will be a dual-major holistic bachelor’s degree in education as well as a specialized subject such as language, history, music, mathematics, computer science, chemistry, economics, art, physical education, etc. Beyond the teaching of cutting-edge pedagogy, the

teacher education will include grounding in sociology, history, science, psychology, early childhood care and education, foundational literacy and numeracy, knowledge of India

and its values/ethos/art/traditions, and more. (NEP 2020, Para 15.5)

A timeline of the planning and implementation of the initial phases of the ITEP is elaborated in Figure 1.

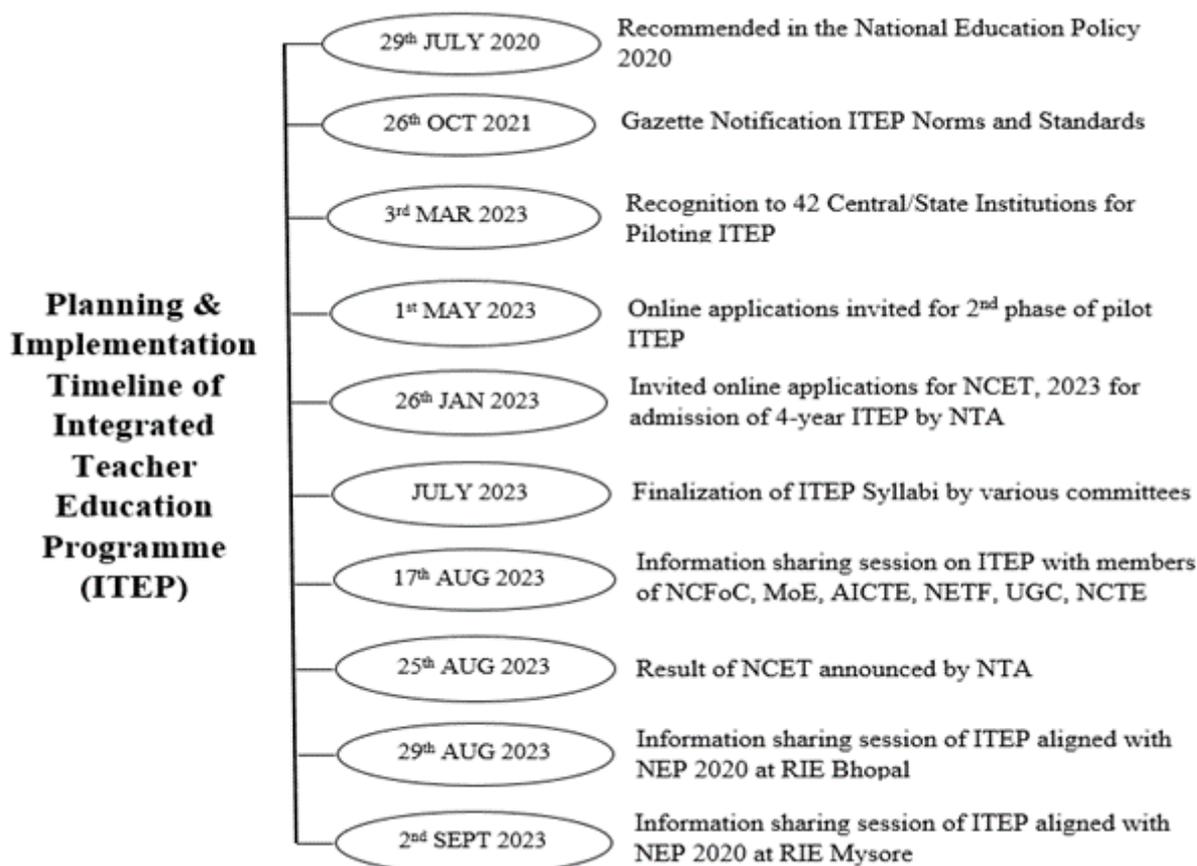


Figure 1: Timeline of Planning and Implementation of Integrated Teacher Education Programme (ITEP) [information extracted from NCTE website as of 10-08-2024].

Key Characteristics and Potential Future Paths of ITEP as Outlined by NEP 2020

The Integrated Teacher Education Programme (ITEP), introduced under the National Education Policy 2020 (Ministry of Education, 2020), is a four-year undergraduate programme designed for students who have completed Grade 12. Admission to this programme is facilitated through the National Common Entrance Test (NCET), conducted by the National

Testing Agency (NTA). The ITEP aligns with the NEP 2020's recommended 5 + 3 + 3 + 4 pedagogical and curriculum framework, which emphasizes comprehensive teacher preparation. Upon successful completion, graduates are awarded a bachelor's degree that integrates a dual major in education and a chosen discipline, providing eligibility for both teaching positions and postgraduate studies in education. The programme adopts a credit-based structure consistent with the Four-Year Undergraduate Programme

(FYUP) model outlined in NEP 2020. To accommodate diverse learning interests, the ITEP also offers flexibility in course selection, allowing students to choose intra-disciplinary or interdisciplinary minors. By 2030, the programme is expected to be implemented in institutions and universities equipped with the necessary faculty and infrastructure to support humanities and science disciplines, ensuring an enriched interdisciplinary learning environment.

Rationale and Objective of the Study

The 2030 Agenda for Sustainable Development' adopted by the United Nations in 2015 aims to transform the world into a better place for the present and future generations by elaborating on seventeen specific goals to be achieved globally by the year 2030. The Fourth Goal on the list, 'Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all,' highlights the importance of the role of teachers and their professional development in guiding learners to identify their learning style and preferences and support them in modifying into effective learning habits to facilitate lifelong learning. Since its official declaration in 2016, the Sustainable Development Goals (SDGs) of the United Nations have been the base of major policy declarations among all developing and underdeveloped nations. The National Education Policy 2020 is an initiative to achieve Goal 4: Quality Education of the SDG 2030 in India. This leads to the rationale of the present study which aims to critically analyse the documents related to the planning and implementation of the Integrated Teacher Education Programme (ITEP), one of the breakthrough recommendations of the National Education Policy 2020, and trace the latent and explicit occurrence of Self-regulated Learning Components and Strategies in the respective documents to appraise its role in meeting the need for the development of teaching

professionals as lifelong learners who are aware of their cognitive processes and are successful reflective practitioners. To accomplish this, the following objectives have been framed.

1. To analyse the policy documents, viz. National Council for Teacher Education (NCTE) Amendment Regulations 2021, NCTE Curriculum Framework for Integrated Teacher Education Programme (ITEP), and Suggestive Syllabi for Secondary Stage ITEP to identify explicit and latent references of Self-regulated Learning (SRL) components and SRL strategies among prospective secondary school teachers within the Integrated Teacher Education Programme (ITEP).
2. To synthesize the findings from the analysis of policy documents to provide insights into the alignment between policy directives and the promotion of Self-regulated Learning (SRL) competencies within the context of teacher education for secondary school educators.

Methodology

The study employs a qualitative design in conducting the content analysis of the policy documents, viz. the National Council for Teacher Education (NCTE) Amendment Regulations 2021, the NCTE Curriculum Framework for Integrated Teacher Education Programme (ITEP), and the Suggestive Syllabi for Secondary Stage ITEP downloaded from the NCTE website. It adapts Zimmerman and Moylan's (2009) Cyclical Phases Model of Self-regulated Learning as the conceptual framework for identifying the latent and explicit occurrence of the Self-regulated Learning Components and Strategies in three key documents related to the planning and implementation of ITEP in teacher education institutions and universities in India.

Document analysis, as elaborated by Corbin and Strauss (2008) is a systematic procedure for reviewing or evaluating printed and electronic (computer-based and internet-transmitted) documents, and the 'content analysis of these documents is employed

in a less rigid, and more flexible manner to draw inferences from the content by acknowledging the mere presence or absence of certain words or phrases.’ (Cardno, 2018). This concept is described by George (2009, p.145) as ‘non-quantitative, non-statistical content analysis, which uses the presence or absence of a certain content characteristic or syndrome as a content indicator in an inferential hypothesis.’

This particular methodology enables to critically identify the latent and explicit content characteristic of the documents as an extension in fulfilment of the recommendations of NEP 2020 and the demands of Sustainable Development Goals 2030 Goal 4– Quality Education in the development of lifelong learners who gain competence for collaborative and self-directed learning through reflective practices in their professional teacher education programme. The content analysis process was initiated by searching for twelve keywords in the concerned documents. Of which five keywords were SRL Components (Metacognition, Self-efficacy, Self-monitoring, Motivation, and Self-directed Learning) and seven keywords were SRL Strategies (Task Analysis, Reflective Practices, Self-assessment, Collaborative Learning, Feedback, Planning, and Problem-solving).

The selection of these specific SRL Components and Strategies was based on the literature review of the experimental studies related to the effectiveness of Self-regulated Learning practices in teacher education since the year 2005. The documents were closely scanned to trace out the Self-regulated Learning Components and Strategies in their guidelines, core and elective course content, assessment practices, suggestions on the mode of transaction, course-specific practicum, and school internship practices. The findings were tabulated by specifying the section of the document that included content and guidelines regarding the SRL Components and Strategies and the aligned practices suggested for the effective development of SRL competencies.

Self-regulated Learning Components and Strategies in Teacher Education

‘Self-regulated Learning (SRL) is a proactive and constructive process where the learners set their learning goals, and monitor them through regular control of their cognition, motivation, and behaviour, guided by their set goals and the contextual features in the environment.’ (Pintrich, 2000, p. 453). In SRL, students engage in an intentional, deliberate, and self-directed approach to activities as part of the active, recurring, critical, and reflective process. This method helps each student develop a sense of self-determined learning (Zimmerman, 2008).

While establishing their cyclical phase, the model of Zimmerman and Moylan (2009) broke down the entire process of learners’ synthesizing the learning process for achieving a task into a few micro-level practices combined into three macro-level phases. It is a sequential paradigm where the learner is involved in the first phase of disposition by involving in task analysis, and strategic study planning through the application of motivational and self-efficacy beliefs. The task is further completed in the second phase, i.e., the performance phase by the application of their awareness of metacognition and self-directed learning components through the application of self-monitoring and collaborative learning techniques. The final phase in the cyclical model is the assessment process where the learner is involved in reflective and self-assessment practices and depends on constructive feedback for the modification of the strategies for subsequent performances (Panadero, 2017).

Taking teachers as key agents of social transformation and practical initiators of global learning trends in the classroom, they have a major role in creating opportunities for lifelong learning as recommended in the NEP 2020 document. Study results of the relationship between the self-regulation

of teachers and their respective students demonstrate the influence of self-regulated practices in teacher education which is beyond the sociodemographic characteristics of vulnerability in the learning environment, as the self-regulated learners achieve control of their learning, resulting from a sense of determination towards achieving their personal and academic goals (Sáez-Delgado et al., 2022). This emphasizes the significance of SRL in teacher education and the need for incorporating its intentional promotion into the public education policies that facilitate the teachers and their students. Kremer-Hayon and Tillema's (1999) study identifies the potential of Self-regulated Learning in teacher education, which can be implemented only through new organizational and curriculum structures and is also of the view that the prospective teachers have a greater positive attitude than the in-service teachers towards SRL in their personal and professional life. The higher level of appreciation for Self-regulated Learning practices among pre-service teachers needs to be extended to the practical level by providing instructions and opportunities to systematically implement it during their practicum (Tran et al., 2022).

The role of the teacher is shifted to the learners in a self-regulated learning-focused classroom as they engage in self-monitoring their ability to complete a task and analyse the driven data either individually or in groups (Metacognition); they set goals and select strategies based on self-monitored outcomes (Task-Analysis and Planning); they work towards the set goals by self-monitoring regularly to refine the strategies with the aid of the teacher (Reflective Practices), which can be essential to the continuing of a self-regulatory approach. As a result, the teacher is crucial in helping the students understand the need to develop academic self-regulation and motivating the dedication required to accomplish it (Zimmerman et al., 1996).

For the present study, Experimental Research in SRL in Teacher Education since the year 2005 was reviewed, which highlights

the role of Self-regulated Learning (SRL) in developing effective, autonomous, and reflective teaching professionals. A synthesis of thirteen experimental studies involving preservice teachers along with Zimmerman and Moylan's Cyclical Phase Model of SRL (2009) have been considered to select the SRL Components and Strategies for the document analysis of the present study. The findings of the experimental studies emphasizes the interplay of cognitive, metacognitive, motivational, behavioural, and contextual dimensions in the development of Self-regulated Learning competency among the prospective teachers. These components are repeatedly validated across varied intervention contexts such as mentorship (Perry et al., 2006), online learning environments (Anderton, 2006), reflective teaching modules (Tanriseven, 2014), and metacognitive training (Kramarski & Michalsky, 2009, 2010) demonstrating their significance in shaping teacher education curricula.

A unifying feature of these studies is the emphasis on cognitive and metacognitive processes, such as goal setting, planning, monitoring, and evaluation, which are essential for academic and professional growth (Kramarski & Michalsky, 2009; Michalsky & Schechter, 2013). Instructional approaches like hypermedia use, mind mapping, and electronic learning diaries (Dignath-Van et al., 2015) were found to enhance preservice teachers' abilities to engage in information processing, strategic organization, and elaboration. Additionally, motivational aspects including intrinsic goal orientation, academic self-efficacy, effort regulation, and causal attributions emerged as vital factors in sustaining learner engagement and professional perseverance (Guvenc, 2010; Ganda & Boruchovitch, 2018; Suhandoko & Hsu, 2020). These motivational elements strongly align with the aims of the National Education Policy (NEP) 2020 which is to prioritize learner autonomy and lifelong learning.

Another recurring theme in the literature is

the role of social and contextual strategies, such as collaboration, peer feedback, and mentor-supported learning. Studies have shown that opportunities for emulation, coaching, and shared reflection (Vrieling et al., 2012; Michalsky & Schechter, 2018) facilitate internalization of SRL behaviours, thereby reinforcing the significance of community-oriented and reflective teaching practices. Furthermore, behavioural and emotional strategies, such as time management, stress regulation, and task readiness, were consistently associated with enhanced teacher preparedness and emotional resilience in diverse classroom contexts (Tanriseven, 2014; Ganda & Boruchovitch, 2018). These findings are particularly relevant to the ITEP's emphasis on preparing emotionally intelligent and self-directed educators.

Through the detailed review of these experimental studies it can be understood that the consistent recurrence and effectiveness of SRL components across teacher education interventions affirm their theoretical and

practical relevance. Therefore, the inclusion of cognitive, metacognitive, motivational, behavioural, emotional, and contextual SRL dimensions enables a nuanced evaluation of how the ITEP curriculum cultivates the competencies needed for self-regulated, reflective, and contextually responsive teaching professionals.

The Cyclical Phase Model of SRL has undergone evolution since its first presentation in the year 2000 as it initially represented only the division of three phases of SRL. It was later revised in 2003 with various processes included in each phase of SRL (Zimmerman & Campillo, 2003), and was further specified in 2009 by adding more stages of activities in the performance phase and elaborating the interaction among all the three phases of SRL (Zimmerman & Moylan, 2009). The conceptual framework adapted for the present study by incorporating Zimmerman and Moylan's Cyclical Phase Model (2009) and the effective SRL Components and Strategies from the review of experimental studies since 2005 is represented in Figure 2.

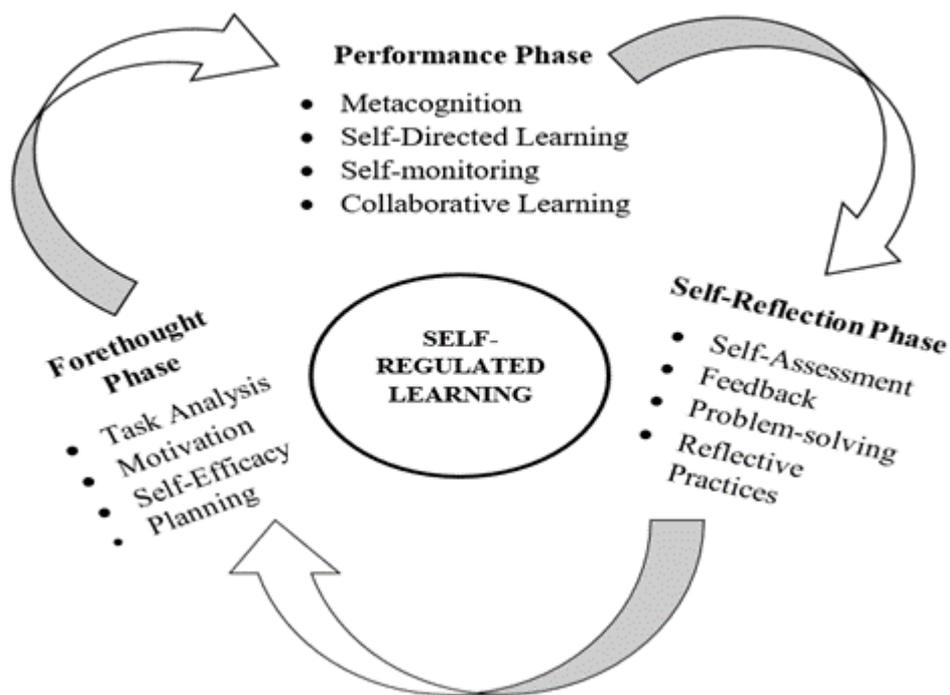


Figure 2: Conceptual framework adapted from Zimmerman and Moylan's (2009) Cyclical Phase Model of Self-Regulated Learning.

Results and Findings

Figure 3. has been developed to form a clear representation of the findings of the analysis on the path of achieving the major study objective of identifying the latent and explicit presence of opportunities for the development of SRL Competencies for student teachers in

the form of SRL Components and Strategies by analysing the policy documents, viz. the National Council for Teacher Education (NCTE) Amendment Regulations 2021, the NCTE Curriculum Framework for Integrated Teacher Education Programme (ITEP), and the Suggestive Syllabi for Secondary Stage ITEP.

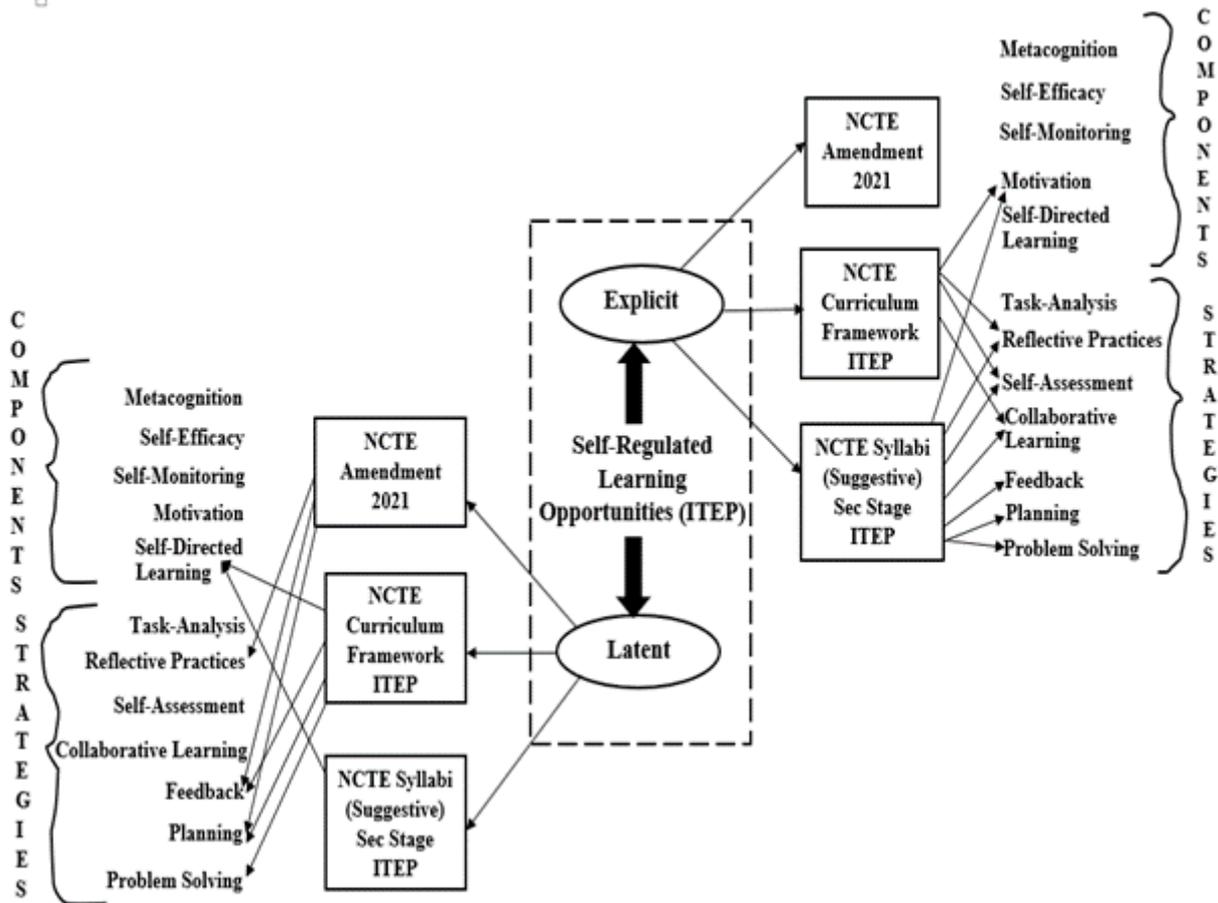


Figure 3. : Latent and Explicit occurrence of SRL Components and Strategies traced in the three policy documents in India.

The content analysis has identified motivation as the only SRL component explicitly embedded in the third semester course on ‘Child Development and Educational Psychology’. This is evidenced through the inclusion of content addressing various theories and types of motivation and suggestive modes of transaction (NCTE Suggestive

Syllabi, Secondary Stage ITEP, 2022, p. 5). Additionally, motivation is emphasized in the instructions for conducting the ‘Student Induction Programme’, mandated for all student-teachers regardless of stage-specific specialization. This programme includes organizing motivational lectures delivered by eminent individuals from society (NCTE

Curriculum Framework, 2022, p. 24).

The Self-directed Learning component is latently evident in the document, reflected through indicators such as self-study, self-learning processes, and self-managed learning activities. These elements are integrated into the suggested modes of transaction across various courses and semesters of the ITEP programme (NCTE Suggestive Syllabi, Secondary Stage ITEP, 2022). The analysis of the documents further highlights the explicit integration of key SRL strategies, viz. reflective practices, self-assessment, collaborative learning, feedback, planning, and problem-solving within the

ITEP. These strategies are systematically embedded in sections such as 'About the Course', 'Learning Outcome', 'Suggestive Practicum', and 'Core Course Content'. Importantly, their inclusion is consistent across all core courses, irrespective of the subject specialization (NCTE Suggestive Syllabi, 2022, p. 58-151).

The detailed analysis of the concerned documents under study and the alignment between policy directives and the promotion of Self-regulated Learning (SRL) competencies within the context of teacher education for secondary school educators under the ITEP is given in Table 1.

Table 1: Alignment of teacher education policy directives with the strategies for the promotion of Self-regulated Learning (SRL) competencies post NEP 2020.

Sl. No.	Document	Self-Regulated Learning Components		Document Pages	Self-Regulated Learning Strategies	
		Presence in Document	Suggested Practices		Presence in Document	Suggested Practices
I.	National Council for Teacher Education (NCTE) Amendment Regulations 2021	The Gazetted Document does not mention any specific Self-regulated Learning Components that are to be included in the ITEP.		Page. 13	Reflective Practices Curriculum and Programme Implementation session. <ul style="list-style-type: none"> Develop Reflective Thinking Create opportunities for reflective thinking 	Maintain Reflective Reports
					Feedback Curriculum and Programme Implementation session. <ul style="list-style-type: none"> Create opportunities for Teaching and Feedback 	Maintain Records of feedback
					Planning Curriculum and Programme Implementation session.	Maintain Records of Planning

II.	NCTE Curriculum Framework for Integrated Teacher Education Programme (ITEP)	<u>Motivation</u> • Student Induction Programme in Semester I	Motivation • across stage-specific specialization	Page 24	<u>Reflective Practices</u> Curriculum and Pedagogical Principles guiding ITEP [Included in Instructions for School-based Activities] • Space for Reflective Dialogue • Reflective Thinking • Reflective Practitioners	Reflective Group Discussions/ Workshops/ Seminars
		<u>Self-Directed Learning Core Course</u> • Understanding Self-directed work <u>Practicum</u> • As attributes that are to be demonstrated by student-teachers	---	Page 15	<u>Self-Assessment</u> Core Course component in Assessment and Evaluation (Semester 6) As Approaches to Assessment and Evaluation	---
		---	---	Pages 11, 12, 27, 28, 34, 40, 42, 43, 44, 48, and 49	<u>Collaborative learning</u> • Curricular and Pedagogical Practices Guiding ITEP • Stage-specific Content cum Pedagogical Courses • Promote Collaborative Learning	• School-based Research Projects • Network of Schools for Practice
					<u>Feedback</u> In Assessment and Feedback Course (Semester 6) As an approach to Assessment and Evaluation	---

					Planning • Mentioned 18 times in the whole document.	• Maintain records of the planning process.
III.	Suggestive Syllabi for Secondary Stage Integrated Teacher Education Programme (ITEP)	Motivation • Content Cum Pedagogy Courses • In the Course on Teacher and Society • As Core Course Content	---	Pages 5, 6, 51, & 186	Self-Regulated Learning Strategies* Pages (58-151) Core Course Content Instructions for Practicum Learning Outcomes. Suggestive Mode of Transaction	• Suggestive Practicum.
		Self-Directed learning • Mentioned in the Suggestive Mode of Transaction	---	Page 191	*Except Task-Analysis which is latently nor explicitly mentioned as an SRL strategy in any of the three documents.	

Table 1 shows the results of the in-depth document analysis conducted on the three foundational sources of the Integrated Teacher Education Programme (ITEP):

1. National Council for Teacher Education (NCTE) Amendment Regulations 2021
2. NCTE Curriculum Framework for Integrated Teacher Education Programme
3. Suggestive Syllabi for Secondary Stage Integrated Teacher Education Programme

The purpose of this analysis was to explore the explicit and latent presence of Self-regulated Learning (SRL) components and strategies in these texts and to identify alignment with SRL principles relevant to teacher education.

1. National Council for Teacher Education (NCTE) Amendment Regulations 2021

The Gazette Notification for the NCTE Amendment Regulations 2021, though crucial as a statutory and regulatory foundation for ITEP, contains no explicit mention

of Self-regulated Learning components. However, references to core SRL strategies can be found in the section on Curriculum and Programme Implementation (page 13). These include a focus on reflective practices, where institutions are encouraged to 'develop reflective thinking,' 'create opportunities for reflection,' and 'maintain reflective reports.'

In addition, the regulation highlights the importance of planning and feedback, although not in the language of SRL research. The directive to maintain records of planning and to create space for teaching and feedback suggests an embedded value on pre-instructional goal setting, strategic decision-making, and self-monitoring, even if they are not articulated as such. These SRL-linked practices appear in embedded forms, pointing to the need for curricular implementers to interpret and extend these practices through pedagogical design and assessment processes.

2. NCTE Curriculum Framework for Integrated Teacher Education Programme

The curriculum framework offers significantly richer integration of SRL elements across several domains of curriculum and pedagogy. The concept of motivation, a central pillar of SRL, is embedded explicitly within the Student Induction Programme in Semester I, as well as across the stage-specific specialization courses (p. 24), emphasizing student engagement and ownership of learning from the very beginning of the programme. A strong presence of reflective practices is noted under the Curriculum and Pedagogical Principles. Reflective practices for the prospective teachers is integrated through school-based activities such as reflective dialogues, group discussions, workshops, and seminars. This recurring emphasis suggests the framework's recognition of self-evaluation and personal meaning-making as essential to teacher development.

Another core SRL domain, self-directed learning is introduced latently in both core course content and practicum sections. Student-teachers are expected to demonstrate attributes of autonomy and initiative in their learning, particularly during field engagement. Additionally, self-assessment practices are emphasized in the context of assessment and evaluation, particularly in Semester 6. This points to an evolving understanding of learners as active agents capable of tracking and regulating their own progress. Further, collaborative learning is promoted through school-based research projects and stage-specific content-cum-pedagogical courses. This aligns with socially shared regulation of learning, where learners co-construct understanding and regulate their tasks in group settings. The feedback mechanism is formalized in the assessment and feedback course of Semester 6, where it is positioned as a tool for formative assessment and reflective improvement. Planning is mentioned 18 times at various places throughout the document suggesting its foundational role in structuring

curriculum implementation and student learning. Therefore, this recurring focus demonstrates alignment with Zimmerman's and Pintrich's emphasis on the forethought and performance phases of learning.

3. Suggestive Syllabi for Secondary Stage Integrated Teacher Education Programme

The Suggestive Syllabi for Secondary Stage Integrated Teacher Education Programme document presents the most detailed operationalization of SRL strategies within course content. Motivation is the only SRL component that has been explicitly embedded in various content-cum-pedagogy courses, particularly in the course titled Teacher and Society, indicating that the emotional and value-based engagement of learners is foregrounded in teacher identity formation.

A major section of the syllabi (pages 58–151) explicitly discusses SRL strategies within the core course content, practicum instructions, learning outcomes, and modes of transaction. These strategies are integrated in a highly contextualized form, reinforcing the B.Ed. student-teacher's role as a self-regulating practitioner during planning, instruction, reflection, and field engagement. The document also supports Self-directed Learning through its emphasis in the suggestive mode of transaction (p. 191), wherein learners are encouraged to take initiative in navigating course materials, practicum activities, and professional inquiries. However, one notable omission across all three documents is the explicit treatment of task analysis, which remains only implicitly embedded in other SRL-related activities but is never addressed as a formal component of planning or strategy use.

Across the three ITEP related documents, the presence and scope of Self-regulated Learning components vary. While the NCTE Regulations 2021 establishes a minimal and implicit foundation, the curriculum framework and suggestive syllabi offer a progressively stronger and more

operationalized integration of SRL strategies. Reflective practices, motivation, self-assessment, planning, collaborative learning, and feedback are recurring themes—underscoring a gradual shift from regulatory policy toward a pedagogically enriched and learner-centred vision of teacher education.

Discussion and Conclusion

Educational policy documents have always been a topic of scrutiny from various angles based on the needs of the stakeholders. The recommendations outlined in the policy documents decide the upliftment of the quality of educational practices in the country. The policy documents have always followed the guidelines put forward in the global context especially by the United Nations Organization as an initiative to address the rights and needs of individuals as global citizens. The National Education Policy 2020 is a step towards achieving Goal 4: Quality Education of the Sustainable Development Goals 2030.

The recommendations for teacher education in NEP 2020 envisioned the need for an interdisciplinary approach to develop the teaching profession into a flexible field of expertise in the concerned field of subject knowledge parallels with the pedagogical and methodological practices. The multidisciplinary approach is addressed through the implementation of the Integrated Teacher Education Programme (ITEP) in the teacher education institutes and universities in India. The ITEP is not a completely new system of teacher education as the Regional Institutes of Education (RIEs) of NCERT which are located in different regions of the country have been successfully implementing integrated teacher education programmes at graduate and postgraduate levels since its year of functioning in 1963. Since its implementation, various educational commissions and committees have applauded and criticized the effectiveness of the four-year integrated teacher education programmes conducted by the RIEs (Parida, 2016).

Teacher training starts during the pre-service teacher education programme and continues throughout the teaching career of the professional in the form of in-service training and various professional development courses. The need for a well-structured Continuous Professional Development (CPD) for the teacher community is highly recommended in the NEP 2020. The significance of lifelong learning opportunities and competencies for teachers is thus justified by the demand for transforming themselves and their skill set based on the needs of the changing classroom demands. Lifelong learning is the aspect that demands hold on one's metacognitive awareness, and self-efficacy, with a sustained motivation from within and the learning environment.

Research in Self-regulated Learning has been gaining prominence through its effectiveness on the learners' academic achievement. It empowers the learners to regulate and modulate their learning practices based on the needs of the task or goal at hand. The path towards achieving SRL has been made possible through empirically proven models of SRL developed in the past few decades of research in this area. The present study has adapted the Cyclical Phase Model of SRL (Zimmerman & Moylan, 2009) which enhances the acquisition and control of learning strategies and improves the performance of low-achieving students and the academic achievements of high-performing students (Torre & Daley, 2023).

The content analysis of the policy documents of ITEP planning and implementation has revealed the presence of SRL components, viz. Motivation and Self-directed Learning in the instructions and guidelines for Curriculum Planning and Implementation of the ITEP. These instructions are not aligned with the practices suggested for their attainment, except for the suggestive syllabus of ITEP for secondary stages which includes course content on the Motivation component. It is also found that the SRL components, viz. metacognition, self-efficacy, and

self-monitoring have no representation in the three key documents of ITEP. An inquiry into the requirements of teachers' metacognitive skills by Lin et al. (2005), elaborates on the need for adaptive metacognition, involving self and environmental changes for successful teaching in diverse classroom situations. An observational study conducted in the area of student-teachers' self-efficacy for instructing self-regulated learning in the classroom by Gan et al. (2020) stressed the need for scaffolding and instruction of self-regulated learning in the teacher education programme practicums to foster self-regulated approaches in their teaching and learning process. According to Bloom (2013), the practice of setting realistic but challenging goals and monitoring progress should be fostered in primary and secondary classroom instruction as it results in a greater sense of self-efficacy and a higher level of motivation in the learning process. Educators with the competence to self-monitor and reflect upon their teaching process can prove to be successful in developing it among the future learners they come across. These specific findings of earlier studies in the area of Self-regulated Learning draw attention to the significance of incorporating the practice of the three essential SRL components- metacognition, self-efficacy, and self-monitoring alongside motivation and self-directed learning - into teacher education programmes. These components are found to be least prioritized in the futuristic ITEP curriculum, which aims to transform teacher preparation into a multidisciplinary field of study by 2030.

The SRL strategies chosen for the study, viz. reflective practices, self-assessment, collaborative learning, feedback, planning, and problem-solving have a significant presence in the policy documents under analysis. They appear in the document sections of instructions for the implementation of various curricular objectives as well as the opportunities provided for course-related practicum and school-based internship. The content analysis also reveals that the

Self-regulated Learning strategy task-analysis has not been latently nor explicitly dealt with in the current policy documents of the Integrated Teacher Education Programme. The prospective teachers when trained with the SRL components and strategies would be competent enough to apply them in their future classroom activities and train their students to develop into lifelong learners through the opportunities provided in the learning environment. The teachers, when well versed in the content and practice of Self-regulated Learning, turn into practitioners of SRL for their professional growth and also to create innovative and engaging learning scenarios. Thus, over time, students' motivation and deep-level processing processes are considerably increased when teachers adhere to the principles of self-regulated learning (Rozendaal et al. 2005).

Zimmerman et al. (1996) are of the view that teachers are most effective when they function as models, consultants, and coaches in the process of developing a self-regulatory level of study skills among diverse learners. Therefore, to implement a self-regulated learning model in classrooms, teachers must be able to demonstrate the use and effectiveness of SRL strategies, keep track of the student's progress, plan the integration of SRL practices within the curriculum, and foresee and prepare for the students' questions regarding various aspects of SRL. To cultivate this competency for developing into an expert in creating a self-regulated learning environment, the prospective teachers should be equipped with training at various levels during their teacher education programme practicum.

The teacher aspirants could implement their SRL competencies in real classroom situations with a representation of students from various social, economic, and educational levels. This exposure to learners from various age groups, social backgrounds, and learning environments could help prospective teachers understand their varying learning needs and tailor the instructional design according to them. The

knowledge and practice of SRL acquired in the teacher education classroom can be applied during the school internship process to work innovatively and according to the changing needs of their students and society. NEP 2020 emphasizes integrating SRL strategies into teacher education programmes, fostering lifelong learners and reflective practitioners. The conceptual model adopted in the study confirms that the learners' awareness of their thinking process, use of individualized learning strategies, and sustained motivation facilitate the development of teaching professionals who can handle the uncertainties of the rapidly changing society and related emerging reforms in higher education. Equipping educators with all important SRL skills will empower them to handle the demands of a rapidly changing society and educational reforms and align with national aspirations for social transformation.

Implications of the Study

The aim of the qualitative content analysis of the policy documents, viz. the National Council for Teacher Education (NCTE) Amendment Regulations 2021, the NCTE Curriculum Framework for Integrated Teacher Education Programme (ITEP), and the Suggestive Syllabi for Secondary Stage ITEP, was to critically evaluate the presence of SRL components and strategies required for the development of the 21st century teaching professionals. The Sustainable Development Goals 2030 identifies the requirement for transforming our education through 'ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all' and this can be possible through the implementation of a transformative teacher education programme as a primary step towards achieving this goal.

The findings from the analysis of policy documents gave further insights into the

alignment between policy directives and the promotion of Self-regulated Learning (SRL) competencies within the context of teacher education for secondary school educators, specifically,

1. The SRL components, viz. metacognition, self-efficacy, and self-monitoring have no representation in these documents which aim to uplift the teacher education as equal to any other professional education that demands the learners' involvement after their senior secondary education. Awareness of one's metacognition empowers the learner to regulate the learning process according to the task and available resources. Self-efficacy facilitates the learners with the confidence to take up the tasks and set goals based on their previous learning experience. The self-monitoring component of SRL aids the learners' task performance phase by regularly synthesizing the activities and making necessary changes for the betterment.
2. The SRL strategy task-analysis has not been latently or explicitly dealt with in the current policy documents. Task-analysis is the initial stage appearing in the forethought phase of the cyclical model of SRL. This provides learners with the opportunity to critically analyze the task at hand and brainstorm the possibilities for making the process and its completion an effective and innovative one.
3. The teacher education programme curriculum should incorporate opportunities for Situated Learning for the prospective teachers. The policy documents on ITEP envision the course content and practicum that develop teachers who can transform the learners' thought processes and learning habits according to the needs of the transforming world without altering their sustainable existence. This can be possible through the practice of situated learning in the form of internship opportunities for prospective teachers in multiple background schools.

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