

Position Paper on Teacher Education based on NEP 2020

1. Preliminary information

This position paper begins with a brief over view of perspective and programmatic directions of teacher preparation as articulated in policy documents of NEP 2020. This is followed by an examination of current concerns and challenges in the field of teacher education based on secondary sources as well as ideas articulated by members during discussions in the focus group.

This position paper provides the vision, concerns and challenges, way forward in terms of Foundational, Preparatory, Middle and Secondary level Teacher Education followed by recommendations for empowering the future generation of pre- service and in- service teacher education programme.

1. Preliminary Information

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1.2. EXECUTIVE SUMMARY

It has been aptly remarked, “If you educate a boy, you educate one individual but if you educate a girl, you educate the whole family and if you educate a teacher, you educate the whole community”.

Teachers truly shape the future of our children – and, therefore, the future of our nation. Teaching is considered as the noblest of all the professions. It is through teachers that our children are imparted with **values, knowledge, empathy, creativity, ethics, life skills and social responsibility**, teachers thus form the very heart of the education process, and represent an indispensable vehicle towards a progressive, just, educated and prosperous society.

Education of a teacher truly drives the greatest change for community and makes progress in achieving societal transformation. Hence, the varied dimensions of teacher education mentioned in NEP 2020, has to be properly analysed with **social concern, responsibility and integrated view for policy implementation**.

NEP 2020 in its purpose clearly stated that all students at all levels of school education are taught by passionate, motivated, highly qualified, professionally trained and well-equipped teachers.

In this context, NEP 2020 also recommends ground breaking policy changes in teacher education system to resolve many issues/challenges faced by the teachers/educationists at different stages (**foundational, preparatory, middle and secondary**) of the school education both at pre-service and in-service.

Major transitions indicated in NEP 2020 for teacher education are mentioned below:

- a) Restoring integrity and credibility to the teacher education system
- b) Moving teacher education into multidisciplinary colleges and universities
- c) Pedagogical approaches of teacher education
- d) Linking school experiences/internship/mentoring with pre-service training programme
- e) Admission to pre-service teacher preparation programme
- f) In-service education and training programme

Context of Teacher Education is analysed in terms of four levels of teacher education:

a) **Foundational stage:** Karnataka has a long history of teacher education which began in 1954. Pre-primary teacher education curriculum was developed way back in 1977-78. It has been 35 years old and no attempt has been made to revise it. In 1978, one year teacher education programme for Nursery stage with eligibility of X standard was started and same was being used till 1998. In 1998, NCTE prescribed a 2 years teacher training course with eligibility criteria of PUC with minimum of 50% marks.

In the mean while NCTE provided DPSE curriculum in 2015. Based on this, Government of Karnataka has started 2 years DPSE in 2019-20. Anganawadi workers and Balasevikas have a very short teacher training program of **6 months to one year**, where the pedagogical component is negligible. Hence there is an urgent need for developing a suitable and meaningful teacher training program at foundational stage of school education.

b) Preparatory and middle stage

Elementary stage: The first training college was started in Dharwad in the year 1857, in order to train the school teachers. Both TCL (Teacher Certificate Lower) for teachers with class 8 qualification and TCH (Teacher Certificate Higher) for teachers with SSLC qualification with one year duration were existing prior to reorganization of states in 1956. The duration of TCH course was increased to 2 years and curriculum was revised in the year 1966. PUC was made minimum qualification for the entrance to TCH course in the year 1987-88.

The curriculum for the TCH course was revised from the academic year 2002-03 and the course was renamed as Diploma in Education (D.Ed.) course. The duration of the course was extended from two years to two and half years to include six months of internship. It was reduced to two years due to popular demand in 2004-05- and 3-months internship was made part of the two years course. The number of D.Ed. colleges in the year 2004-05 were 675. In 2007 the number increased to 888.

The curriculum for the elementary teacher education program was revisited in the academic year 2002-2003 to include a 3-month internship as a part of the 2-year course. Currently, there are 178 institutions that offer a Diploma in Elementary Education (D. El. Ed.) for aspiring teachers in Karnataka.

c) Secondary stage

The origin of teachers' education for secondary school can be traced back to early 19th century, state initiatives for teacher training were ensured in 1815, which is one of the earliest recorded views in support to the training needs of school teachers.

In 1947, at the eve of independence, there were 650 training schools with enrolment of 38,770 students. The number of secondary training colleges all over the country was only 42 with an enrolment of 3100 teacher trainees. In the field of teacher education, many new trends and innovations have emerged in our country and abroad.

After independence, Government of India took the task of reconstruction of Indian education on priority basis. Likewise, many committees and commissions were set up by the Government of India for strengthening the system of teacher education in India.

d) In-service training

In-service training sessions are crucial to adapt to the fast-changing educational landscape. The in-service training provided to teachers includes modules on curriculum knowledge, exclusion practices, inclusive policies, gender sensitization and initiatives to support Children with Special Needs (CWSN). However, the execution of these programs and institutional support has not resulted in a pronounced improvement in the student learning outcomes. ([KKC, 2013](#)).

Teacher's education is undergoing rapid changes in keeping pace with the demand of learning and expectation of learners, community and society as a whole. Various efforts have been made to improve teacher education. But gaps can still be seen. It should also aim to upgrade the standard of teachers' education, enhance the professional and social status of teachers and develop a sense of commitment among them (Indian society for training and development 2009, New Delhi, India).

Concerns and Challenges for four stages of integrated teacher Education:

Concerns:

1. Foundational level teacher education is inadequate in Karnataka, no specially designed teacher training course to prepare teachers for foundational classes.
2. Professionalism is not found among teacher educators at different levels of teacher education.
3. Curriculum and pedagogy followed in colleges of teacher education is not learner friendly and not preparing teachers to face new challenges.
4. Inadequate internship / school experiences/mentoring to trainees in the training period at the different levels of teacher education.
5. No specially designed training courses for foundational level and for higher secondary level teachers both at in-service and pre service levels.
6. No scope for reskilling and up skilling of required competencies among teachers in unaided schools and college of teacher education.
7. There is no mechanism for vertical mobility of teachers.
8. No proper research opportunities to school teachers and teacher educators.
9. No proper collaboration between school education, higher education and teacher education

Challenges:

1. Preparing a uniform curriculum across the country for different levels of pre-service teacher education.
2. Designing the curriculum for teacher education for different levels by mapping with school education
3. Identifying the potential of the institutions to allocate centres for different stages of teacher education.
4. Identifying the qualified and qualitative teacher educators for training teachers
5. Training pre-service and in-service teachers for 21st Century skills
6. Training of existing teachers to face the new challenges as per NEP 2020
7. Preparing and equipping teachers for changing roles and responsibilities.
8. Changing the attitude of the teacher educators as per the changing roles and responsibilities at the multi-disciplinary institutions
9. Attracting meritorious students to different levels of teacher education courses
10. For the internship/mentoring/ school experiences in pre-service training programme, linking of local schools to the multidisciplinary training institutions.
11. For vocational educational requirements, training the trainees according to the requirement to secondary school level.

12. Need to shift **assessment processes from content to competencies**, by emphasizing on **optimized learning and development of all the students both at school and teacher education level**.
13. Need for changing the track of students' assessment according to **continuous and comprehensive evaluation and competency-based assessment**.
14. Need to promote learning and development of all the teacher aspirants by testing their higher-order skills (analysis, critical thinking and creativity with conceptual clarity).

The integrated teacher education programme shall be offered after senior secondary or its equivalent examination as per NEP 2020 at foundational, Preparatory, middle and secondary level. Each stage is discussed in terms of Curriculum (content inputs), pedagogical approaches to be followed, Internship/mentorship/school experiences, Evaluation/Assessment and recommendations for Pre service and In-service training at different levels.

Recommendations for Teacher Education are as follows:

- Minimum qualification for teacher educators at multi-disciplinary institutions has to be specified.
- The training institutions have to be ear-marked separately for foundational, preparatory, middle and secondary levels.
- Security of qualified teachers in government, aided and unaided institutions have to be taken care of for giving quality training for teacher aspirants.
- Direct practical-oriented teacher training programmes have to be focused over giving importance to online teacher training courses.
- During teacher training & assessment, equal weightage has to be given for curricular, co-curricular and extra-curricular activities throughout teacher training programmes.
- Research opportunities have to be provided and promoted to upgrade the teachers and teacher educators.
- Research and development wing should be started/strengthened at DSERT to promote research activities among teachers and teacher educators.
- Online course certificates from MOOC, NPTEL etc. should be considered for upgrading the status, if teacher aspirants would like to enhance their expertise in the related subjects or skills.
- Special provision must be given to the teacher aspirants from rural, backward, tribal, women students / marginalised social groups in order to promote the policy of equity and access to education.
- If possible, differently abled teacher aspirants should be given preference for teacher education
- The teacher preparation should **act as an instrument** in the realization of **national goals and people's aspirations** and should reflect the **Indian heritage**.
- This new curriculum should familiarize teachers with the **social, cultural customs and values of native communities** in order to meet the needs of future students in the context of NEP 2020.

- In order to create proper curricular structures for qualitative teacher education/training at 4 levels the **benchmarks** have to be set combined with **study, integration and practice**.
- Higher Education Department and School Education Department must come together to frame Curriculum framework for Teacher education.
- A scheme of scholarships for meritorious students should be established for the purpose of attracting outstanding candidates to B.Ed. programmes. This can be implemented by respective state governments/UTs.
- Every teacher Education institution should be accredited by National accrediting agency framed for the purpose of assessing and accrediting teacher education institutions.
- Department of Higher Education should set up a national mission for mentoring. This mission will focus on mentoring with a large pool of outstanding senior/retired faculty to provide mentoring /professional support to teacher educators.
- Subject wise networking has to be created for exchange of ideas for innovative practices among teacher educators at different levels.
- Outstanding teachers with demonstrated leadership and management skills would be trained over time to take on academic leadership positions in schools/school complexes, BRCs DIETs, CTEs and DSERT.
- **Professionalism is yet another concern** which must be viewed in terms of professional parameters, professional behaviour and professional responsibilities.
- For vocational educational requirements, **co-opting the experts** either from **industry / business /other vocational background** and training them according to the requirement to secondary school level is a biggest challenge.

1.3. Committee Members:

1. Dr.H.V. Vamadevappa Chairperson

Former Principal, M.M. College of Education, Davangere-577004

2. Dr. Girija N Srinivasalu Member

Director, NHQASDC, New Horizon Educational Institution, Bangalore

3. Dr.Vishnu M Sindhe Member

Assistant Professor, Akkamahadevi University, Vijayapura

4. Prof. Sathyanarayana M.S. Member

Chairman, Sri Sathya Sai Vishwaniketanam, Hampi, Vijayanagar Dist.

5. Dr. Chidananda.A.L Member

Co-ordinator, Department of Education, Mangalore Uuniversity, Mangalore

6. Dr. Trishta Ramamurthy Member

Founder, Aikya Schools, Bangalore

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|-----------------------------|------------------------|
| 7. Dr. Masooda Jamal | Member |
| Lecturer, DIET, Haveri | |
| 8. Smt. Vinutha | Co-ordinator |
| SADPI, DSERT, Bangalore | |
| 9. Director, DSERT | Nodal officer |
| 10. Nodal DIET | Bangalore North |

POSITION PAPER ON TEACHER EDUCATION AS PER NEP 2020

Vision of NEP 2020

1. Teacher Education is truly vital in creating the team of teachers that will shape the next generation. Teacher preparation is an activity that requires multidisciplinary perspectives and knowledge, the formation of **dispositions and values, and the development of practice under the best mentors**. Teachers must be grounded in **Indian values, ethos, knowledge and traditions, while also being well versed in the later advances in education and pedagogy** (NEP 15.1).

2. Recognizing that the teachers will require training in high quality content as well as pedagogy, teacher education will gradually be moved by 2030 into multidisciplinary colleges and universities. As colleges and universities all move towards becoming multidisciplinary, they will also aim to house outstanding education departments that offer B Ed., M. Ed., and Ph.D., in education.” [NEP 2020, 5.22]

3. Fundamental principles of the education system include “teachers and faculty as the heart of the learning process – their recruitment, continuous professional development, positive working environments and service conditions” [NEP 2020, Principles of this Policy, p.5]

2. Introduction:

It has been aptly remarked, “If you educate a boy, you educate one individual but if you educate a girl, you educate the whole family and if you educate a teacher, you educate the whole community”.

Teachers truly shape the future of our children – and, therefore, the future of our nation’. Teaching is considered as the noblest of all the professions. It is through teachers that our children are imparted with **values, knowledge, empathy, creativity, ethics, life skills and social responsibility**, teachers thus form the very heart of the education process, and represent an indispensable vehicle towards a progressive, just, educated and prosperous society (NEP 5.1).

Education of a teacher truly drives the greatest change for community and makes progress in achieving societal transformation. Hence, the varied dimensions of teacher education mentioned in NEP 2020, has to be properly analysed with **social concern, responsibility and integrated view for policy implementation**.

NEP 2020 in its purpose clearly stated that all students at all levels of school education are taught by passionate, motivated, highly qualified, professionally trained and well-equipped teachers.

Teacher education speaks both about pre-service and in-service training for the school education.

In this context, NEP 2020 also recommends ground breaking policy changes in teacher education system to resolve many issues/challenges faced by the teachers/educationists at different stages (**foundation, preparatory, middle and secondary**) of the school education both at pre-service and in-service.

Major transitions indicated in NEP 2020 for teacher education are as follows:

a) Restoring integrity and credibility to the teacher education system:

The integrity and credibility of the teacher education system has unfortunately taken a great hit and witnessed a severe decline due to the thousands of teacher education institutions that are solely commercial operations where little if any teacher education is taking place. If teacher education is to improve and reach the levels of integrity and credibility required to restore the prestige of the teaching profession and thereby attain a successful school system. Such sub-standard standalone teacher education institutions will have to be closed immediately while good institutions with positive intent strengthened (DNEP2019, 15 para 4)

b) Moving teacher education into multidisciplinary colleges and universities:

The objective of NEP 2020 is to ensure that teachers are given the highest quality training in **content, pedagogy and practice**, by moving the teacher education system into **multidisciplinary colleges and universities**, and establishing the **four years integrated Bachelor's degree** as the minimum qualification for all school teachers.

Teacher education for all levels-**foundational, preparatory, middle and secondary** – will take place within the university/higher education system, the four years pre- service teacher preparation programme for different tracks will be offered at the university level as a dual degree (in education together with any desired specialized subject) undergraduate programme of study, and will thus include both disciplinary as well as teacher preparation courses. The different tracks that teachers will be prepared for in a B.Ed. programme will include:

- a. Foundational and preparatory school generalist teachers
- b. Subject teachers for Middle and Secondary School
- c. Special Education teachers
- d. Art teachers (including visual and performing arts)
- e. Teachers for Vocational education, and
- f. Physical education Teachers

The four years degree will be on par with other undergraduate degrees and students with a four years integrated B.Ed. will be eligible to move on to a master's degree program in either disciplinary stream or the pedagogic stream. (DNEP2019, P5. 5.1)

Teacher education in multidisciplinary colleges or universities would ensure that teacher education benefits **from interaction with other areas of higher education**, and that student teachers develop in liberal spaces with access to a full range of academic resources, including libraries, internet and extra- curricular activities.

Teachers-in-training would thereby be able to interact with peers from other disciplines and be taught by faculty in allied disciplines of education such as psychology, child development, and social sciences making them that much stronger as teachers when they graduate. Multidisciplinary settings will also ensure that the disciplinary components of integrated programmes will be offered by experts from the relevant departments.

Types of teacher education programme:

1. 4-year integrated teacher education programme: By 2030 the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree that teaches a range of knowledge, content and pedagogy and includes strong practicum training in the form of student-teaching at local schools.”
2. 2-year B.Ed programme: “The 2 year B.Ed. programme will also be offered, by the same multidisciplinary institutions offering the 4 year integrated B.Ed. and will be intended only for those who have already obtained Bachelor’s Degrees in other specialized subjects.”
3. 1-year B.Ed., programme: “These B.Ed. programme may also be suitably adapted as 1 year B.Ed. programme, and will be offered only to those who have completed the equivalent of 4 year multidisciplinary Bachelor’s Degrees or who have obtained a Master’s degree in a specialty and wish to become a subject teacher in that specialty.”

“All such B.Ed. degrees would be offered only by accredited multidisciplinary higher education institutions offering 4-year integrated B.Ed. programme”. [NEP 2020, 5.23]

c) Curriculum-pedagogical approaches of teacher education

In terms of areas for further reform with in the education component of the integrated B.Ed. program, multilevel, discussion based, and constructivist learning, and a concentration on foundational literacy/numeracy, inclusive pedagogy and evaluation, knowledge of India and its traditions, and the development in students of 21st century skills such as problem solving, critical and creative thinking, ethical and moral reasoning, and communication and discussion abilities, are among the key areas of the curriculum with pedagogical approaches for teacher preparation that will be reformed and revitalized.

d) Linking school experiences/internship/mentoring with pre-service teacher education programme

For the internship/mentoring/ school experiences in pre-service training programme local schools should be linked to the multidisciplinary training institutions.

e)Admission to Pre- Service Teacher Preparation Programme

Admission to Pre- Service Teacher Preparation Programmes, like all HEI admissions will be carried out in large part through **subject and aptitude tests conducted by the National Testing Agency**.

Selection of Candidates for the Four-Year B.Ed. Course:

Candidates who are interested in joining the four-year integrated B.Ed. course should appear for an entrance examination, wherein they are tested rigorously in the following areas:

1. Passion and interest
2. Thorough content/ subject knowledge
3. Communication skills/Language skills
4. Talents like music, dance, yoga, sports and games, etc.
5. Knowledge of information and communication technology
6. Knowledge about Indian culture
7. Knowledge of values to become an ideal teacher
8. Scientific attitude
9. Motivating skills to develop rational thinking and curiosity
10. Professional attire and attitude
11. Collaborative skills and team work
12. Love, care and kindness to students

Candidates would be considered qualified to take up the course only if they secure a minimum of 50% in the entrance examination.

This is in keeping with the principles of separating Board examinations from official university entrance examinations, while the full criteria and process of admissions will be left to the universities and colleges offering these programmes.

f)In Service teacher Education Programme as per NEP 2020:

Departments of Education in **multi-disciplinary colleges and universities** must be able to offer programmes that are blended and part time, to enable practising teachers to continue their higher education studies and aspire for professional mobility. **DSERT, IASE, CTE** and **DIETs** must develop courses and activities for in service teachers as well as mentoring programs for beginning teachers.

All courses' offerings must be available in a range of formats including part time, evening, blended and online, in addition to full time programs. Working professional teachers need to be seen as an important student clientele of education departments, and programs that meet their research and higher education interests should be developed and offered in the online as well as face to face modes. The use of technology platforms such as SWAYAM/ DIKSHA for online training of teachers will be encouraged, so that standardized training programs can be administered to large numbers of teachers within short span of time.

3. Context: Present position of pre-service teacher education programme in Karnataka

There are mainly three types of teachers training institutions for imparting training to teachers in Karnataka i.e. Pre School, elementary and secondary levels of education respectively.

a) Foundational stage/ECCE Training

Karnataka has a long history of teacher education which began in 1954. Pre-primary teacher education curriculum was developed way back in 1977-78. It has been 35 years old and no attempt has been made to revise it.

In 1978, one year teacher education programme for Nursery stage with eligibility of X standard was started and same was being used till 1998.

In 1998, NCTE prescribed a 2 years teacher training course with eligibility criteria of PUC with minimum of 50% marks.

In the mean while NCTE provided DPSE curriculum in 2015. Based on this, Government of Karnataka has started 2 years DPSE in 2019-20. Anganawadi teachers and Balasevikas have a very short teacher training program of **6 months to one year**, where the pedagogical component is negligible. Hence there is an urgent need for developing a suitable and meaningful teacher training program at foundational stage of school education.

Teacher Training in Anganwadis

There are 65,911 Anganwadis in Karnataka that serve 40 lakh children between the ages of 0 and 6 ([DWCD](#)). Anganwadi Workers (AWW) provide informal pre-school education to children between the ages of 3 and 6. All candidates applying to work in an Anganwadi are required to fulfil the selection criteria; they must be between 20 and 35 years and must have passed SSLC/10th Grade exams. AWW are provided with a 15-day training session and additional 2-day training sessions monthly; they are responsible for providing children with basic education, improving child growth and community building in rural areas. Due to the demanding nature of this role, AWW are unable to execute the allocated 120 minutes for preschool student training.

b) Preparatory and middle stage/Elementary/D.Ed, programme.

The first training college was started in Dharwad in the year 1857, in order to train the school teachers. Both TCL (Teacher Certificate Lower) for teachers with class 8 qualification and TCH (Teacher Certificate Higher) for teachers with SSLC qualification with one year duration were existing prior to reorganization of states in 1956. The duration of TCH course was increased to 2 years and curriculum was revised in the year 1966. PUC (XII) class was made minimum qualification for the entrance for TCH course in the year 1987-88.

The curriculum for the TCH course was revised from the academic year 2002-03 and the course was renamed as Diploma in Education (D, Ed.) course. The duration of the course was extended from two years to 2 and half years to include six months of internship. It was reduced to two years due to popular demand in 2004-05- and 3-months internship was made part of the 2 years course.

The number of D.Ed. colleges in the year 2004-05 were 675. In 2007 the number increased to 888.

The curriculum for the elementary teacher education program was revisited in the academic year 2002-2003 to include a 3-month internship as a part of the 2-year course. Currently, there are 178 institutions that offer a Diploma in Elementary Education (D.El.Ed) for aspiring teachers in Karnataka.

As the emphasis on in-service teacher training has widened the gap between in-service education and pre-service education, the Karnataka Knowledge Commission established a status study to reform teacher education ([KKC, 2011](#)). This study highlights the need to re-examine the implementation of the internship component as this presently functions as a cursory practice with limited opportunities for reflection and learning. The revised Karnataka Elementary Teacher Education Curriculum (KETEC) is a comprehensive document developed for lower primary and higher primary education focused on supporting teachers to build learning experiences that are meaningful, reflective & relevant ([KETEC, 2016](#)) Although reflective teaching has been integrated into the D.Ed. curriculum (2013-14) by the DSERT, the implementation has not been successful in Karnataka due to gaps in the execution of training on Reflective Teaching Strategy and lack of feedback ([Kumari & Naik, 2016](#)).

c) Secondary stage/B.Ed. programme

The origin of teachers' education for secondary school can be traced back to early 19th century, state initiatives for teacher training were ensured in 1815, which is one of the earliest recorded views in support to the training needs of school teachers.

In 1947, at the eve of independence, there were 650 training schools with enrolment of 38,770 students. The number of secondary training colleges all over the country was only 42 with an enrolment of 3100 teacher trainees. In the field of teacher education, many new trends and innovations have emerged in our country and abroad.

After independence, Government of India took the task of reconstruction of Indian education on priority basis. Likewise, many committees and commissions were set up by the Government of India for strengthening the system of teacher's education in India.

The number of secondary training colleges all over the country was only 42 with an enrolment of 3100 teacher trainees.¹

The professional preparation of teachers has been recognized to be crucial for the qualitative improvement of education since the 1960's (Indian education commission 1964-1966), but very few concrete steps have been taken in the last 3 decades to operationalize this. The commission recommended the introduction of "integrated courses of general and professional education in universities with greater scope for self-study and discussion and a comprehensive programme of internship".²

Subsequently (1983-1985), the **Chattopadhyaya committee report** of the National commission on teachers observed that "What obtains in the majority of our teaching colleges and training institutes is woefully inadequate". "If teachers' education is to be made relevant to the roles and responsibilities of the new teacher, the minimum length of training for a secondary teacher should be five year following the completion of class XII. Reiterating the need...: To enable general and professional education to be pursued concurrently", the commission recommends that "To begin with we may have an integrated four-year programme".

The National Policy on Education (1986-1992) recognised that "teachers should have the freedom to innovate, to devise appropriate methods of communication and activities relevant to the needs and capabilities of and the concerns of the community". The policy further states that "teacher education is a continuous process and its pre service and in-service components are inseparable. As the first step the system of teacher education will be overhauled"

The Yashpal committee report (1993) on learning without burden noted “inadequate programs of teacher’s preparation led to unsatisfactory quality of learning in schools. The content of the programme should be restructured to ensure its relevance to the changing needs of school education. The emphasis in the programmes should be on enabling the trainees to acquire the ability for self-learning and independent thinking”.

According to the **justice J S Verma commission (2012)** constituted by the supreme court, a majority of standalone TEIS over 10,000 in number are not even attempting serious teacher education but are essentially selling degrees for a price. Regulatory efforts so far have neither been able to curb the malpractices in the system, nor enforce basic standards for quality, and in fact have had the negative effect of curbing the growth of excellence and innovation in the sector. The sector and its regulatory system are, therefore in urgent need of revitalization through radical action, in order to raise standards and restore integrity, credibility, efficacy and high quality to the teacher education system. (NEP. 15.2.)

Although the extension of the B.Ed. program to two years has resulted in a significant improvement in the quality of teacher education provided, the change in the duration of the program has led to a decrease in admissions and objections from teacher educators. ([Itagi & Kulkarni, 2020](#)) To ensure that students have access to innovative and high calibre educators, the KSEP proposed broad changes to the structure of teacher training, recruitment and education ([KSEP, 2016](#)). Some of the suggestions include phasing out the 2-year B.Ed program and standalone Teacher Education Institutes (TEIs), transferring the pre-service teacher education to the higher education department and reinforcing in-service teacher development initiatives.

National Curriculum Framework of Teacher Education ([NCFTE, 2009](#)) stresses the need for improved teacher education programmes, pre-service education as well as in-service training. Teachers are expected to design a curriculum which engages, challenges and absorbs students into a world of learning that is enjoyable and fun. It includes the following key points ([MHRD](#)) -

- To make teacher education a reflective practice, provide opportunities for prospective teachers for self-learning, reflection, assimilation and articulation of new ideas.
- Increase the opportunities for teachers to work collaboratively and pursue self-directed learning.

The NCFTE sets out four areas of teacher education – the curriculum for the elementary programme - the Diploma in Education (D.Ed.); the secondary education programme - the Bachelor in Education (B.Ed.) degree; and Masters and Doctoral streams for teacher educators. It proposes to extend the period of study for each of the education degrees. There is also a proposal to incorporate a 4-year initial teacher education after senior secondary called Bachelor in Elementary Education (B.El.Ed.). The Karnataka State Education Policy proposes improving the current B.Ed., and that teacher education courses should be part of multidisciplinary programmes. Similar to the NEP emphasis, Karnataka has slowly begun closing down stand-alone institutes and encouraging universities to offer integrated four years’ teacher education programme.

d) Context of In-service training programme in Karnataka

In-service training sessions are crucial to adapt to the fast-changing educational landscape. The in-service training provided to teachers includes modules on curriculum knowledge, exclusion practices, inclusive policies, gender sensitization and initiatives to support Children With Special Needs (CWSN) . However, the execution of these programs and institutional support has not resulted in a pronounced improvement in the student learning outcomes ([KKC, 2013](#)).

A plethora of programs have been designed and implemented to provide consistent support to teachers, these include training offered by the British Council, Nali Kali training, Continuous and Comprehensive Evaluation (CCE) training, induction training and the Technology Assisted Learning Program (TALP) in Karnataka, in addition to the training for the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) scheme implemented by the Government of India. The Master Resource Person Training (MRPT) under this scheme allows master resource persons to mentor teachers at the district level ([Formative Evaluation of In-service Teacher Training, 2015](#)).

In pursuance of the proposals of the National policy on education (NPE) 1986, the Government of India has established 48 academic staff colleges (ASCs); which impart in-service training to teachers in higher education. The percentage of trained teachers has progressively increased at every level of education every year, a large number of teachers are trained and added to the existing pool of trained teachers. At present the percentage of trained teachers is 88 percent at primary school stage, 88 percent at upper primary stage, and 91 percent at secondary and senior secondary stage. This shows that still there are 10-12 percent untrained teachers working in schools at all India level. Teacher's education is undergoing rapid changes in keeping pace with the demand of learning and expectation of learners, community and society as a whole, various efforts have been made to improve teacher education. But gaps can still be seen. It should also aim to upgrade the standard of teachers' education, enhance the professional and social status of teachers and develop a sense of commitment among them (Indian Society for Training and Development 2009, New Delhi, India).

4. Concerns and Challenges for four stages of Integrated Teacher Education

Concerns):

1. Foundational level teacher education is inadequate in Karnataka- no specially designed teacher training course to prepare teachers for foundational classes.
2. Professionalism is not found among teacher educators at different levels of teacher education.
3. Curriculum and pedagogy followed in colleges of education is not learner friendly and not preparing teachers to face new challenges.
4. Inadequate internship / school experiences/mentoring to trainees in the training period at the different levels of teacher education.
5. No specially designed training courses for foundational level and for higher secondary level teachers both at in-service and pre service levels.
6. No scope for reskilling and up skilling of required competencies among teachers in unaided schools and college of teacher education.

7. There is no mechanism for vertical mobility of teachers.
8. No research opportunities to school teachers and teacher educators.
9. No proper collaboration between school education, higher education and teacher education

Challenges

1. Training of existing teachers to face the new challenges as per NEP 2020.
2. Preparing a uniform curriculum across the country for different levels of Pre service teacher education.
3. Designing the curriculum for teacher education for different levels by mapping curriculum with school education
4. Identifying the potential of the institutions to allocate centres for different stages of teacher education.
5. Training teachers for 21st Century skills
6. Identifying the qualified and quality human resources for teacher education for training teachers
7. Preparing and equipping teachers for changing roles and responsibilities.
8. Changing the attitude of the teacher educators as per the changing roles and responsibilities at the multi-disciplinary institutions
9. Attracting meritorious students to different levels of teacher education courses
10. For the internship/mentoring/ school experiences in pre-service training programme, linking of local schools to the multidisciplinary training institutions is a great challenge.
11. For vocational educational requirements, training the trainees according to the requirement to secondary school level.
12. Need to shift **assessment processes from content to competencies**, by emphasizing on **optimized learning and development of all the students both at school and teacher education level.**
13. Need for changing the track of students' assessment according to **continuous and comprehensive evaluation and competency-based assessment.**
14. Need to promote learning and development of all the teacher aspirants by testing their higher-order skills (analysis, critical thinking and creativity with conceptual clarity).

5. WAY FORWARD:

AS PER NEP 2020 THE PROPOSED TEACHER EDUCATION PROGRAMME AT FOUR STAGES

5.1. Foundational stage: Course structure: There will be 4 Years integrated Teacher education programme at foundational teacher training to prepare teachers to teach the children of age group 3-8 years. Trained teachers of this program are eligible to teach ECCE

classes and grade 1 and 2. The minimum qualification to enter the course will be 12th standard qualified (+2).

a) Curriculum for teacher education programme at foundation level

The foundational stage will consist of five years of flexible, multi-level, play/activity-based curriculum, hence the student teachers must develop in them the concepts, competencies, attitudes and skills related to child centred, play and activity centred approach.

Language development, health and nutrition, social and emotional development, physical and psychomotor development, aesthetic development, creativity and play must be some of the inputs in the pre-primary teacher education curriculum.

The cognitive development receives an emphatically low status in the scheme of activities. Drawing, Music, Dance and Drama receive an equally important chunk in the curriculum. It will also appropriately integrate environment awareness and sensitivity towards its conservation and sustainable development so that environment education becomes part of school curricula. Some important dimensions that are to be considered here are

- Language proficiency of the teacher trainee needs to be enhanced, because it is of central character in the curriculum and it is the demand of the society.
- For learner centred activities teacher training programme are to be organized based on participatory learning experiences, play, projects, discussion, observation, visits etc.
- Simple process skills of science teaching are to become the base on which activities are to be developed for teaching
- Understand the self and others, one's beliefs, assumptions, emotions and aspirations: develop the capacity of self-evaluation, adaptability, flexibility, creativity and innovation.
- Understand the four types of consciousness-National consciousness, Environmental consciousness, other's consciousness and Self-consciousness.

Develop habits and the capacity for self-directed learning in teacher aspirants to prepare them to think, reflect, assimilate and articulate new ideas, be self-critical and to work collaboratively in groups. The child must get ample opportunity to express his/her ideas whether it is funny or crazy. Student teachers must face such programmes to learn. Curriculum should include training modules on Toy/Games concepts based on Indian civilization, heritage, culture, mythology, history, ethos, technology, ethnicity, national heroes, and important events. Inculcate positive behaviour and good values ('Sanskaar'). Curriculum should include syllabus to provide psycho social support to student teachers.

b) Pedagogy of teacher education at foundation stage

The four years integrated teacher educator programme will include training in time tested and as well as most recent techniques in Pedagogy. Pedagogy will include Foundational Literacy and Numeracy, multi-level teaching and evaluation, inclusive pedagogy for teaching children with disabilities as well as children with special interest and talents, use of educational technology, learner centered and collaborative learning, toys for specially-abled/ Divyang children Boosting physical and mental fitness Using eco-friendly, indigenous, non-hazardous, or recycled material. story telling and Graphic novels as a pedagogical tool.

Sports-integration as a cross-curricular pedagogical approach:

cross-curricular pedagogical approach that utilizes physical activities including indigenous sports like Kabaddi, Gilli Danda, Kho kho etc.in pedagogical practices to help in developing skills such as collaboration, self-direction, self-discipline, teamwork, responsibility, citizenship, etc. Sports be undertaken in classroom transactions to help student teachers to adopt fitness as a lifelong attitude and to achieve the related life skills along with the levels of fitness as envisaged in NEP 2020.- The need to integrate sports in education is well recognized as it serves to foster holistic development by promoting physical and psychological well cognitive abilities.” [NEP 2020, 4.8]

Art-integration as a cross-curricular pedagogical approach: [NEP 2020, 4.7]

One of the primary goals of a teacher education program is to help pre -service teachers develop pedagogical theory-based tools designed to assist student learning. Research work in this regard reveals evidence suggesting a causal relationship between the arts and non-arts-based cognition in both drama and music. Causal relationships were established for drama in improving reading readiness and reading achievement scores, oral language skills, and story understanding (Podlozny, 2000). Listening to classical music improved short-term performance on some spatial tasks (Hetland, 2000a), and classroom music programs where children experimented with instruments, improvisation, and movement improved performance on some paper and pencil spatial tasks (Hetland, 2000b). Hence, Pedagogy of TE at foundational level should include Art related practise modules. Support for students with special talents: Teacher students with special talents be discovered, nurtured, fostered, and developed. These talents may express themselves in the form of varying interests, dispositions, and capacities. Those students that have strong interests and capacities in a given realm must be encouraged to pursue that realm beyond the general school curriculum. Teacher education will include methods for the recognition and fostering of such student talents and interests. B.Ed., programmes may also allow a specialization in the education of gifted children.” [NEP 2020, 4.43]. “Teachers will aim to encourage students with singular interests and/or talents in the classroom by giving them supplementary enrichment material and guidance and encouragement” [NEP 2020, 4.44].

Develop professional skills in pedagogy, observation, documentation, analysis and interpretation and doing small projects. Children’s Drama, Craft, Story-telling and reflective inquiry are to be arranged and practiced.

c) Resources/ materials required for foundation level of teacher education

Exposure to real materials, real situations, nature, toys, games, e materials- animation, audio and videos etc.

Technology integration in training for planning, implementation and evaluation process to be focused more.

d) Practicum/Internship/mentorship/ school experiences:

The integrated teacher educator programme will include strong practical training in the form of in-class teaching at local schools.

The student-teachers have to be trained to enact the role of mentors to the kids and parents.

e) Assessment/ Evaluation procedures

The evaluation system followed in teacher education program at foundational stage is too information oriented, excessively quantitative and lacks comprehensiveness. Apart from conceptual and pedagogical aspects existing programs need to develop certain attitudes, dispositions, habits and interests in a teacher through tools and techniques such as Survey, Observation, Field visits, Project works, Seminars, symposium, etc., The present evaluation protocol has no place for evaluating these aspects. The constructive approach highlighted in the NCF 2005 document can certainly be practiced if the above points are kept in mind while framing the curriculum.

Proposed In-service Teacher Education as per NEP-2020

Anganwadi workers with qualification of 10th standard and 10+2 have to be given one year certificate programme for foundational level. These trainings must be given through face to face mode or for certain situations distance mode(digital)mode may be used.

Few suggestive activities for In-service training are as follows:

1. Induction programmes for foundational level teachers.
2. Professional development programmes.
3. Orientation and refresher programmes.
4. Subjects and content enrichment programmes.
5. Guidance and counselling training programmes.
6. CCRT and other central government programmes.
7. Orientation in Community service programmes.
8. Training for Blended learning Multi Level teaching.
9. For Anganwadi workers Trainings through Digital mode
10. Pedagogical training workshops.
11. Evaluation (Need/Competency based) and assessment training.
12. Hands on experience on online teaching and evaluation.
13. 50 hours of Professional Development programme (CPD) every year.
14. Trainings on Technology Use and Integration in Classroom Transaction
15. Trainings on acquisition of Life skills.
16. Workshops for promoting multilingualism - the power of language and constitutional Values in Classroom teaching.
17. Workshop on visual and performing arts
18. Training in music.
19. Training in soft skills
20. 24-hour helpline for all the teachers.

5.2. PROPOSED TEACHER EDUCATION PROGRAMME AT PREPARATORY STAGE AS PER NEP2020

The preparatory stage of school education consists of class 3 to 5 which comes under the age group of 8 to 11. The teacher preparation for this stage must adopt all the recommendations envisaged by NEP 2020.

The Preparatory stage of Teacher education must look into school duration and suggestive inputs by the NEP-2020. The Preparatory stage will comprise 3years of education building on the play, discovery and activity based Pedagogical and curricular style of the foundational stage and will also begin to incorporate some light textbooks as well as aspects

of more formal but interactive classroom learning. In order to lay a solid ground work across subjects, including reading, writing, speaking, physical education, art, languages, science and mathematics. Preparing teachers in varied subjects and skills is a unique challenge.

1) **Course structure:** There will be 4 Years integrated teacher education programme at preparatory teacher training. The minimum qualification to enter the course will be 12th standard.

a) **Content Inputs:** At this level content inputs can be divided into theory syllabus and practical inputs. This will be structured in credits system.

Theory syllabus inputs may include the following:

- 1) Languages
- 2) Disciplinary Subjects
- 3) Educational courses (Hard Core and Soft Core)
- 4) Enhancing Professional Competency (EPC) Courses
- 5) Skill development courses
- 6) Mandatory Courses

Practical inputs may include the following:

- 1) Performing Arts and Fine Arts
- 2) Physical Education and wellness
- 3) Classroom Management and Managerial Skills
- 4) School Internship Programme.

b) **Pedagogy aspects:**

Since content inputs are in credits, theory, practical and tutorial system may be adopted. For teacher training at preparatory teacher education following pedagogical emphases must be given.

1. Activity based teaching learning methods
2. Field trips and visits
3. Constructivist approaches
4. Experiential learning
5. E-learning methods
6. Co-operative learning
7. Simulation methods
8. Blended learning approaches
9. Group discussion
10. Project method
11. Discovery approaches
12. Art-integration as a cross –curricular pedagogical approach
13. Sports-integration as a cross curricular pedagogical approach
14. Support for students with special talents-Preparatory teacher training will include methods for the reorganization and fostering of such student talents and interest.

c) **Internship Programme:**(School life experience)

Well-structured internship programme for preparatory teacher education must be developed keeping practical components of programme. Internship programme will be classified in to three phases i.e., Pre-internship, Actual internship and Post Internship.

Pre-internship activities (Preparation at Institutional Level):

1. Unit plan, Content analyses and text book review activities at institution level.
2. Work shop on lesson planning based on Constructivist approaches and teaching learning materials preparation training at teacher training institutions.
3. Micro teaching and Skill demonstrations
4. Lesson demonstrations by School teachers and Teacher educators at real setting.
5. Language skills and classroom management techniques training.
6. Simulation teaching practice at training institutions.

Actual internship activities:

1. School life experience with observation, participation in all school activity and teaching.
2. Mentoring by school teachers and constructive feedback by mentors.
3. Maintaining of E-documentation of school activities and records by trainees.
4. Maintaining of reflective dairy of school activities by trainees.
5. Participating, recording and monitoring of programmes.
6. Unit test, Diagnostic tests and remedial teaching at practicing schools.
7. Recording and grading of non-scholastic activities suggested in curriculum.
8. Conducting Action research

Post Internship activities:

1. Presentation of Reflective dairy by trainees
2. Submission of internship record
3. Viva Voce
4. Practical examinations

d) **Assessment of Teacher education Programme:** (Evaluation):

The entire programme will be run into semester system. The assessment of theory and practical activities must be structured with university regulations.

Tests and examinations for

1. Languages
2. Disciplinary Subjects
3. Educational courses (card core and Soft Core)
4. Enhancing Professional Competency (EPC) Courses
5. Skill development courses
6. Foundational Courses

Practical inputs may be assessed in terms of CCE

1. Performing Arts, Fine Arts and Music
2. Physical Education and wellness
3. Classroom Management and Managerial Skills
4. School Internship Programme.

Since course will be based on credit system, appropriate evaluation and result pattern must be adopted.

e) **In-Service training programme at preparatory stage**

In-service training must to be developed parallel to the needs and objectives of preparatory Teacher Education as per NEP-2020. These in-services will help in maximizing the efforts of teachers.

Special short term local teacher training programme will be available in DIETs or at school complexes from expert resource persons/master instructors for promoting local professions, knowledge and skills.

Few suggestive activities for In-service training are as follows:

1. Induction programme.
2. Professional development programme
3. Orientation and refresher courses.
4. Guidance and counselling training programme.
5. Orientation in Community service programme.
6. Training for blended learning approach.
7. Pedagogical training workshops.
8. Evaluation and assessment training.
9. Hands on experience on online teaching and evaluation.
10. Training in visual/performing arts.
11. Training in Value Education, Yoga and Life skills.
12. Self- directed personal development of teachers.
13. Online resources for continuous professional development.
14. In-school teacher development processes.
15. Training of local art and crafts.

5.3. PROPOSED TEACHER EDUCATION PROGRAMME AT MIDDLE LEVEL AS PER NEP 2020

The design of the middle school teacher education programme is the most important compared to all other stages. The child is neither too young nor an adolescent at that age, their minds are receptive and willing to grasp the concepts. In the Book “Keeping Good Teachers”, written by **Mark.F.Goldberg** observes that it is difficult to be a great teacher without being comfortable with the age group of eleven to fourteen. Middle school teachers help students build them the fundamentals they learned in the elementary schools and prepare them for the more complex subjects and lessons in secondary level. The students also have high regard for their teachers during this age and consider their teachers as ideals or role models. So more focus has to be given to training teachers for middle school level.

And also, introduction of subjects for learning and discussion of abstract concepts in each subject, across Sciences, Mathematics, Arts, Social Science and Humanities at middle school level demands trained subject teachers.

As there is no hard separation among curricular, extra-curricular and co-curricular subjects as per NEP 2020, the teacher training needs focus more on experiential learning in each of the following areas:

- Encouraging students to bring out their innate talents-fine arts, sports etc
- Developing national and emotional integration- various activities
- Narrating abilities- story telling/case explanation
- Guiding & Counselling-mentoring

Using of latest technologies for providing varied experiences for developing life skills
Preparing the students for change management

There is an acute need of innovative, talented, knowledgeable and reaching-out teachers.

a) Curriculum:

Teachers need to be trained in organizing learner centred, activity based, participatory learning experience – play, projects, discussions, dialogue, observation, visit etc. Teacher education should encourage teachers with the curriculum, syllabi and textbooks to critically examine them. Teacher education should provide student teacher with opportunities for reflection and independent study without packing the training schedule with teacher directed activities alone

Theory inputs of the course must include:

- 1) Languages
- 2) Disciplinary Subjects
- 3) Educational courses (Hard core and Soft Core)
- 4) Courses for Enhancing Professional Competency (EPC Courses)
- 5) Skill development courses
- 6) Foundational Courses
- 7) Optional courses

Practical inputs may include the following:

- 1) Performing Arts, Fine Arts and Music
- 2) Physical Education and Wellness
- 3) Classroom Management and Managerial Skills
- 4) School Internship Programme.

b) Pedagogy:

For teacher training at Middle level teacher education following pedagogical emphases must be given.

1. Activity based teaching learning methods
2. Field trips and visits
3. Constructivist approaches
4. Experiential learning
5. E-learning methods
6. Co-operative learning
7. Simulation methods
8. Blended learning approaches
9. Group discussion
10. Project method
11. Discovery approaches
12. Art-integration as a cross –curricular pedagogical approach

13. Sports-integration as a cross curricular pedagogical approach
14. Support for students with special talents-middle level teacher training will include methods for the reorganization and fostering of such student talents and interest.

Apart from teaching talent, a few other basic skills are very much essential for middle school teacher:

1. National and emotional integration
2. Narrative skills
3. Counselling and consolidating
4. Encouraging students to bring out their innate talents
5. Being a Change Agent
6. Knowledge of latest technologies

Equal importance should be given to Para Vidya (Spiritual Knowledge including Values Education) as well as Apar Vidya (Worldly Knowledge). The Middle school is the best time to teach both forms of knowledge from the perspective of learning attitude of the child. This type of education creates a lifelong indelible bond between the children and their teacher. An effective middle school teacher acts out of natural qualities such as empathy, composure and not of anger and aggression, the teacher uses the love as the law and is always sensitive and rational towards the student's needs.

c) School Internship/ mentorship /school experiences in teacher education programme:

As mentioned in the earlier stages, pre-internship, actual internship and post internship activities have to be carried out by engaging teacher trainees with schools in the 3rd and 4th year of the program. The components of school internship include, planning for teaching, teaching learning, observation of classes, engaging in continuous and comprehensive assessment for learning, writing reflective journals, developing resources and designing activities and undertaking classroom-based research products. This is essential for the middle class i.e from 6th to 8th standard. They should be provided the opportunities to teach in government and private schools with sustained engagement, systematic supervisory support and feedback from faculty.

d) Evaluation/Assessment:

The entire programme will be run into semester system. The assessment of theory and practical activities must be structured with university regulations. Appropriate evaluation and result pattern must be adopted since course will be based on credit system.

The assessment of children should evoke the 'joy of learning' among students. Experiential learning is far more valuable than mere paper and pencil tests and exams.

1. Create lesson plans to teach students a subject.
2. Assess students to evaluate their abilities, strengths and weaknesses.
3. Grade students' assignments and exams.
4. Rubrics.
5. Performance evaluation.
6. Holistic assessment.
7. Practical examination.

e) In-service Teacher Education at middle stage as per NEP-2020

In-service training must to be developed parallel to the needs and objectives of Middle stage as per NEP-2020. These in-service programmes will be helpful in maximizing the efforts of teacher educators.

Few suggestive activities for In-service training are as follows:

1. Induction programme
2. Professional development programme.
3. Orientation and refresher courses.
4. Subject and content enrichment programme
5. Guidance and counselling training programme.
6. CCRT and other central government programme.
7. Orientation in Community service programme.
8. Training for Blended learning.
9. Pedagogical training workshops.
10. Evaluation and assessment training.
11. Hands on experience on online teaching and evaluation.
12. Training in visual/performing arts
13. Training in Value Education, Yoga and Life skills
14. The use of technology platforms such as SWAYAM/DIKSHA for online training of teachers.

5.4. Proposed Secondary stage Teacher Education Programme as per NEP 2020

(Arts, Science and Commerce Streams)

The Integrated Teacher Education Programme (ITEP) programme emphasizes on preparing teachers as envisaged in Pedagogical and Curricular restructuring of school education under NEP 2020. Apart from preparing teachers for the school education system in the country, the disciplinary knowledge gained in different subjects would help the student-teachers to gain in-depth knowledge in their specific subject(s) which would ensure admission to higher studies in that disciplinary stream and for higher professional qualification.

The integrated Teacher Education Programme (ITEP) aims at the dual purpose of providing student teachers disciplinary knowledge along with the professional knowledge in an integrated manner. Since the program will be equivalent to an undergraduate degree (B.Sc./B.A./ B.Com.) and Teacher Education Degree, the curriculum of this program includes different courses and activities essential for both the degrees.

The integrated Teacher Education Programme (ITEP) shall be in multi and inter disciplinary academic environment and shall be implemented in a phase wise manner commencing in a pilot mode. The programme shall permit sharing of existing physical resources of other departments of the university/ HEIs. The ownership of ITEP shall lie with the Education Department of the multidisciplinary HEIs. All stand-alone Teacher Education Institutions (hereafter referred to as 'TEIs') will be required to convert into multidisciplinary institutions by 2030 to become eligible to offer the ITEP.

The four years Integrated Teacher Education Programme (ITEP) Arts Stream and Science Stream is offered after Senior Secondary (+2) and aims at preparing committed,

responsible and professional teachers. This programme is intended to result in a paradigm shift in teacher preparation. The curriculum of this four-year integrated programme is designed inculcating the world's best practices in the field of teacher education sector. This is a specialised course with intrinsic integration of pedagogy and content, along with sustained engagement with liberal disciplines of knowledge and field of education. Opportunity for vertical mobility is visualised through this programme.

This programme integrates general studies comprising Mathematics and Science, Social Sciences and Humanities and also professional studies comprising perspectives in education, other core education courses, curriculum and pedagogy of school subjects and practicum related to the tasks and functions of a school teacher. It maintains a balance between theory and practice and ensures coherence and integration among the various components of the programme. It is expected to equip the aspirant school teacher with the requisite attitude, skill and knowledge to address the challenges of becoming an effective school teacher.

A) Curriculum:

At this level content inputs can be divided into theory inputs and practical inputs. This will be structured in credits system.

Theory syllabus inputs may include the following:

- 1) Languages
- 2) Disciplinary Subjects
- 3) Educational courses (Hard core and Soft Core)
- 4) Enhancing Professional Competency (EPC) Courses
- 5) Skill development courses
- 6) Foundational Courses
- 7) Optional courses
- 8) Interdisciplinary courses

Practical inputs may include the following:

- 1) Performing Arts and Fine Arts
- 2) Physical Education and wellness
- 3) Classroom Management and Managerial Skills
- 4) School Internship Programme.

b) Pedagogy:

Since content inputs are in credits Theory, practical and tutorial system may be adopted. For teacher training at secondary level teacher education following pedagogical emphases must be given.

1. Activity based teaching learning methods
2. Field trips and visits
3. Constructivist approaches
4. Experiential learning
5. E-learning methods
6. Co-operative learning
7. Simulation methods
8. Blended learning approaches
9. Group discussion
10. Project method

11. Discovery approaches
12. Art-integration as a cross –curricular pedagogical approach
13. Sports-integration as a cross curricular pedagogical approach
14. Support for students with special talents-secondary level teacher training will include methods for the reorganization and fostering of such student talents and interest.

c) Internship Programme/school life experiences/ mentorship

As mentioned in the **preparatory stage of teacher education programme**, a well-structured internship programme for secondary level teacher education must be developed keeping practical components of programme. that is, pre-internship, Actual internship and Post Internship.

d) Assessment of Programme (Evaluation):

The entire programme will be run into semester system. The assessment of theory and practical activities must be structured with university regulations. **As discussed earlier practical inputs may be assessed in terms of grades with the help of CCE along with Tests and examinations.**

f) In-service Teacher Education at secondary stage as per NEP-2020

In-service training must to be developed parallel to the needs and objectives of Secondary Teacher Education as per NEP-2020. These in-service programmes will be help in maximizing the efforts of teacher educators.

Few suggestive activities for In-service training are as follows:

- 1, Induction programmes for secondary level teachers.
- 2, Professional development programmes.
- 3.Orientation and refresher courses.
- 4.Subject and content enrichment programmes.
- 5.Guidance and counselling training programmes.
- 6.CCRT and other central government programmes.
- 7.Orientation in Community service programmes.
- 8.Training for Blended learning.
- 9.Pedagogical training workshops.
- 10.Evaluation and assessment training.
- 11.Hands on experience on online teaching and evaluation.
- 12.Training in visual/performing arts
- 13.Training in Value Education, Yoga and Life skills
- 14.The use of technology platforms such as SWAYAM/DIKSHA for online training of teachers.

7. Recommendations for empowering the future generation of pre-service teacher education as per NEP2020:

- There is need for a separate **teacher education university** at the state level for framing appropriate **policies** to strengthen both **pre-service and in-service teacher**

education programmes for govt. aided and unaided schools and colleges of teacher education.

- Teacher education policy at the state level should not permit any new teacher education institutions till 2030 for encouraging integrated teacher education programme (ITEP)
- Higher Education Department and School Education Department must come together to frame Curriculum framework for Teacher education.
- For continuous professional development of **teachers/teacher educators (CPD)** both at pre-service and in-service levels, **a separate wing for monitoring and assessment of teacher educators and leaders (principals and other administrative heads)** based on core competencies and professional behaviour, **has to be formed either at teacher education university or Higher education department**
- For quality education in the schools, **accountability of teachers and teacher educators** has to be considered as most important factor. (Appraisals have to be based on specific assessments)
- **Minimum qualification** for teacher educators at **multi-disciplinary institutions** has to be specified.
- The teacher education institutions have to be **ear-marked separately for foundational, preparatory, middle and secondary levels.**

Among the existing 30 DIETs in Karnataka, **15 DIETs can be ear marked for foundational level teacher education and another 15 for preparatory level teacher education.**

- Required infrastructure should be provided to **convert them into multidisciplinary institutions. one in each district should be identified to run teacher education course** at foundational, preparatory, middle and secondary level.
- **Qualified teacher educators to be deputed or recruited to these institutions** and to CTEs and DIETs to work for minimum 10 years in those institutions .Present staff without required qualification to be sent back to school education department.
- CTEs and private aided B.Ed., colleges accredited by NAAC could be identified to run **middle and secondary teacher education** courses.
- **Security of qualified teachers in government, aided and unaided institutions** have to be taken care of for giving quality training for teacher aspirants.
- **Direct practical-oriented teacher education programmes** have to be focused over giving importance to online teacher training courses/programme.
- During teacher training & assessment, **equal weightage has to be given for curricular, co-curricular and extra-curricular activities** throughout teacher education programmes.
- Research opportunities have to be provided and promoted to upgrade the teachers and teacher educators.
- **Research and development wing** should be started/strengthened at DSERT to promote research activities among teachers and teacher educators.
- Online course certificates from **MOOC, NPTEL etc.** should be considered for upgrading the status, if teacher aspirants would like to enhance their expertise in the related subjects or skills.
- Special provision must be given to the **teacher aspirants from rural, backward, tribal, women students / marginalised social groups in order to promote the policy of equity and access to education.**

- If possible, **differently abled teacher aspirants** should be given preference for teacher education
- The teacher preparation should **act as an instrument** in the realization of **national goals and people's aspirations** and should reflect the **Indian heritage**.
- This new curriculum should familiarize teachers with the **social, cultural customs and values of native communities** in order to meet the needs of future students in the context of NEP 2020.
- In order to create proper curricular structures for qualitative teacher education at 4 levels, the **benchmarks** have to be set combined with **study, integration and practice**.
- A scheme of **scholarships for meritorious students should be established for the purpose of attracting outstanding candidates to B.Ed. programmes**. This can be implemented by respective state governments/UTs.
- Every teacher Education institution should be accredited by **National accrediting agency framed for the purpose of assessing and accrediting teacher education institutions**.
- Department of Higher Education should set up a **national mission for mentoring**. This mission will have a large pool of outstanding senior/retired teachers/ teacher educators to provide mentoring /professional support to teachers and teacher educators.
- **Subject wise networking has to be created for exchange** of ideas for innovative practices among teacher educators at different levels.
- **Outstanding teachers with demonstrated leadership and management skills would be trained overtime to take on academic leadership positions** in schools/school complexes, BRCs DIETs, CTEs and DSERT.
- **Professionalism is yet another concern** which must be viewed in terms of professional parameters, professional behaviour and professional responsibilities.
- For vocational educational requirements, **co-opting the experts** either from **industry / business /other vocational background** and training them according to the requirement to secondary school level is a biggest challenge.
- Teacher preparation or teacher training at four stages should focus on **indigenous ideas and thoughts** based on the experiences, practices and ideas of ancient Indian culture, as well as the requirements of the **local/ regional needs of the society**.
- The new curriculum should familiarize teachers with the **social, cultural customs and values of native communities** in order to meet the needs of future students in the context of NEP 2020.
- There has to be **uniform curriculum structure** for all the teacher education programme at different stages.
- The teacher preparation should focus on the development of the **physical, emotional, intellectual and spiritual** aspects, through **communication, interpersonal/social, psychological, organizational /managerial and technological skills** for the overall development of a **multi skilled teacher**, thus enabling him/her to teach at any level.
- In order to provide varied practical experiences to the teacher aspirants for **experimenting with new/innovative ideas, direct/practical/technical** training is very essential.
- There is a need for **value-based curriculum** at the teacher preparation stage, which would cultivate **internal discipline** in each aspirant that will take care of the wellness of all the learners.

- To develop positive attitude towards **constructivist experiences in the teacher aspirants, varied pedagogical practices/approaches** have to be introduced.
- Pedagogical practices (micro-macro teaching practice) should encourage the teacher aspirants for learning with **reflections, learning with discussions, learning with critical thinking, analysis** and experiential learning through collaborative approaches.
- There is a need for technological skills for **streamlining educational planning, administration and management in the educational institutions.**
- **Integrating technology with classroom teaching learning processes to enhance access to e-resources** is most important for developing thinking capacities in teacher aspirants.
- There is also a need for developing a unique course curriculum for teacher training, to prepare the teacher aspirants for **multi-disciplinary skill** requirement which will enable the teachers to link and co-scholastic subjects like **music, dance, drama, sports, yoga, drawing, designing and programming** with scholastic subjects.
- There is a need to develop a unique course curriculum for training teachers for teaching **sports at school level in order to develop physical and mental fitness in the learner.**
- **RTE act has to be given due importance in teacher education programme,**
- **There is a need for community participation in the teacher education programme at each level.**
- NCTE, Higher Education Department and other state agencies play crucial roles in implementing ITEP.
- The below mentioned **multi-disciplinary skills need to be developed through various activities/events as part of teacher training programme:**
 - a. **Verbal & non-verbal communication** skills
 - b. **Emotional balance and psychological** skills for overall personality development, by creating interest, curiosity, intelligence, confidence, thinking skills.
 - c. **Social/soft skills like** cooperation, coordination, collaboration, sharing, caring and social responsibilities.
 - d. **Technical skills** like problem solving, troubleshooting, discovery techniques and using of innovative and creative ideas through technological knowledge
 - e. **Managerial skills** like human and material resource management, time management, space management etc.
 - f. **Biological skills** like physical fitness and mental Health
- Placement drive can also be planned since, there are various career opportunities in teacher education:
 - Subject coordinators/ experts/specialists
 - Computer teachers/facilitators
 - Laboratory specialists-science/ maths/ language
 - Digital Library assistants
 - Co-scholastic teachers like Yoga and Physical education, visual and performing arts'
 - Fine arts teacher like music, dance, art and drama

- School Counsellors
 - Curriculum designers/ developers
 - Community service coordinators
 - Health and recreation staff
 - Academic educational advisors/ consultants
 - Adult Literacy Teachers
 - Educational administrators and business administrators
 - Principals and Directors for Educational institutions
- State teacher education board has to be set by for decentralized administration below national board responsible for implementation of regulations set by national board. A 10-member board to be constituted including executive and zonal officers. State board should monitor and provide assistance to teacher education institutions in the state and zonal level which serves as link and pass information between institutions and national board.

Conclusion:

It is the responsibility of the society and the nature to produce excellent teachers. It is our sacred duty that we get best of best teachers through the program of B.Ed. and M.Ed. There shouldn't be any compromise with the quality. The nation is already suffering because of the average teachers. From all possible angles we must encourage the genius, highly motivated, fully spirited young men and women to the teaching field.

As per NEP 2020, we need to link the good/ **best policies and practices of school education with teacher education** for both **pre-service and in-service** education levels with the combination of arts + Science subjects, curricular, co-curricular and extra-curricular activities for 4 different levels/stages (**foundational, preparatory, middle and secondary**) to develop academic and non-academic skills in teacher aspirants.

Subject wise networking of teacher educators has to be created for exchange of ideas for innovative practices.

With all the above aspects, teacher training has to prepare a teacher with thorough content knowledge, with pedagogy and resources along with the evaluation process to achieve expected learning outcomes from the learners.

Teachers are the guiding stars and lighthouses for the student community. They must be regarded as Gurus and Acharyas. Needless to mention, teachers also need to grow to the level that they command respect from all sections of society.

There is an urgent need to improve the quality of teachers in order to achieve this goal. It is a vital point to discuss how far we have achieved success in rural areas, in the field of primary and middle education. Though the appointment of teachers in government schools are done on the basis of marks obtained in TET, the success rate is not very encouraging.

From this point of view, selecting the right candidates for teaching is critical and this should be done solely on the basis of passion and interest in the field, rather than merely filling the open slots. Otherwise, all the efforts of NEP – 2020 would be futile.

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